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**The State and Spaces of Official Labour
Statistics in the Federal Republic of
Germany, c.1950-1973**

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Declaration of Originality

I hereby declare that the dissertation has been composed by me, that it is my own work and that it has not been submitted for any other degree or professional qualification.

Jochen Mayer

Edinburgh, in December 2011

Glossary of Abbreviations

AA/LÄ	Local Labour Office(s)
ABAA	<i>Arbeit, Beruf und Arbeitslosenhilfe. Das Arbeitsamt</i> (Specialist Journal for the BAVAV assignment, 1956-1975). Former title was <i>Das Arbeitsamt. Fachzeitschrift für Theorie und Praxis der Arbeitsverwaltung</i> (1950-1956).
ANBA	Official Gazette of the Federal Office of Labour Exchanges and Unemployment Insurance
AVAVG	Law on Employment Service and Unemployment Insurance ('great amendment' in 1957)
BA	Federal Labour Office (1969-2002)
BAVAV	Federal Office of Labour Exchanges and Unemployment Insurance (1952-1969)
BDA	Confederation of German Employers' Associations
BDI	Federation of German Industries
BLS	US Bureau of Labour Statistics
BMA	Federal Ministry of Labour and Social Affairs
BMI	Federal Ministry of the Interior
BMWi	Federal Ministry of Economics
DGB	German Federation of Trade Unions
FRG	Federal Republic of Germany
IAB	Institute for Employment Research
ICLS	International Conference of Labour Statisticians
ILO	International Labour Organisation
INSEE	National Institute of Statistics and Economic Studies (France)
LAA/LÄ	<i>Länder</i> Labour Office(s)
MSAC	Manpower and Social Affairs Committee
OECD	Organisation for Economic Co-operation and Development (1961 until today)
OEEC	Organisation for European Economic Co-operation (1948-1961)

RAVAV	Reich Office of Labour Exchanges and Unemployment Insurance (1927-1938)
RKW	German Economic Rationalisation Board
StBA	Federal Statistical Office
StBR	Statistical Advisory Committee
StLA	<i>Länder</i> Statistical Office
StLÄ	Länder Statistical Offices
SVR	German Council of Economic Experts
WiBR	Scientific Advice Council to the Ministry of Economics

Abstract of Thesis

This PhD examines the historical making and interpretation of West-German official labour statistics in the period 1950-1973: how did official statistics come to be inscribed in state and administrative attempts to intervene into the labour market with respect to (un-)employment? Rather than considering statistics as a *resource* for state action and scientific investigation, this thesis is concerned with statistics as a contested *topic* comprising different techniques and ideas, styles of reasoning, practices, technologies and institutional contexts. Drawing on archival material from the Ministry of Labour and Social Affairs, the Federal Labour Office, the Federal Statistical Office, the Organisation for Economic Corporation and Development (OECD), and other sources, the thesis examines debates over the abolition of the federal labour office's labour statistics 1950–1963, and the establishment of a new statistical infrastructure in the following decade. In bridging work in economic and social history, and the history and geography of official statistics and technology, this thesis shows how debate on the employment files – generated in 1935 and re-established in 1950 – as the basis of quarterly official statistics was centred on the question of which statistics for which polity. This involved different ‘statistical gazes’ at different scales among labour administrators, bureaucratic officials, and statisticians. In studying the scientific-administrative issues of how and where statistics were produced and made credible, the analysis shows how authoritarian conceptions inscribed onto the files gave way, first, to more economical conceptions of data capturing (i.e. representative samples) and, from the late 1960s, to a statistical infrastructure based on electronic data processing. In examining the different rationalities – statistical-technical and political – the thesis shows how transformations in labour statistics were affected by dynamics between: federal state space and locality; technological dreams of labour administrators and statistical requirements; mathematisation and mechanisation of the statistical discourse; trust and credibility; public critique and legitimacy.

1. Introduction

1.1. Interpreting Statistics and Statistical Procedure

Today, statistics are at the heart of our understanding of the economy. The countries of the world are ranked by their gross national product (GNP). Data on hours worked, holidays, and output per person employed help to define perceptions of the economy in international perspective. Indicators such as the Consumer Price Index (*Verbraucherpreisindex*) are used routinely in the regulation of everyday life. New unemployment figures are news on TV programmes and newspaper front pages. They crucially inform social legislation. Nowadays, the starting point of every social law is numerical. Statistics also shape our understanding of social and economic history. Histories can be told differently with reference to large statistical aggregates such as industrial production or employment. We speak of unemployment as ‘going up’ or ‘down’, ‘rising’ or ‘falling’. In large part, this is surely because we think of unemployment as a numerical series visualised in a graph. Data on the individual for the duration of his/her participation in working life co-constitutes our self-understanding as working human beings.

More broadly, statistics and the calculus of probabilities were granted a place as one of six ‘styles of scientific thinking in the European tradition’ (Crombie 1995). Statistical analysis of regularities of humans and things and the conclusions drawn have been described as an ‘autonomous’ way of being objective about a wide class of facts, armed with their own authority, and available as a neutral tool for any project or ideology that seeks to deploy them (Hacking 1983). There is a statistical language, a statistical truth, and a statistical reason by which, from the early nineteenth-century, new sentences, new classes (human and non-human), new objects, new explanations, and new criteria for truth and untruth came into being (Hacking 1992).

This dissertation is driven by the desire to understand how these peculiar quantitative objects came into existence. In pursuit of this question, it explores the making and interpretation of labour statistics in mid-twentieth century West Germany. It does so by tracing central statistical concepts and infrastructures across time and various institutional spaces: state ministries, labour offices, the Federal Statistical Office (StBA), The German Statistical Society (DStG), and the Organisation for Economic Cooperation and Development (OECD, until 1961

known as OEEC).¹ The major aim of this dissertation is to understand how a particular social knowledge was made in the course of administrative and governmental attempts to describe, order, and manage the economy and the labour market more specifically.

This dissertation is concerned, then, with statistical techniques and with the production of factual social and economic knowledge. It makes a first attempt to map out the development of the repertoire of West German post-war labour statistics. Considering statistics as at the same time an instrument of government and of scientific evidence (Desrosières 1998; 2008a; b), this dissertation treats statistics not as the sole property of academic or governmental experts but as an integral part of the economic and social world which they claim to describe. As is indicated by the title, this dissertation is concerned with the relationship between (democratic) political orders and statistical expertise and knowledge. Neither the state nor the assemblage of quantitative information about a society, and about the economy in particular, gathered in its name are neutral reflections of individual economic activities or social and economic reality more broadly. Both spheres are co-produced by particular types of social actors using particular discourses and techniques in an effort to make sense of and to order the complex and contingent reality that surrounded them. These efforts, as this thesis claims, were undertaken against the background of various, often competing spaces and scales, whether individual or institutional, local, regional, national, or transnational.² In this sense, the most

¹ Throughout this thesis the term 'infrastructure' will be used in Bowker and Starr's (1999: 33-35) sense. They develop and use this term to analyse socio-technical infrastructure understood as the interdependences of technical networks and standards on the one hand, and the real work of politics and knowledge production on the other. A definition of statistical infrastructure suitable for the present context shares the following characteristics with those identified by Bowker and Starr. First, statistical infrastructure is characterised by 'embeddedness'. It is sunk into other structures, social arrangements, and technologies such as classificatory systems, data gathering procedures and machine technology. Second, statistical infrastructure is 'transparent to use' in that it does not have to be reinvented each time or reassembled for each elicitation, but supports them relatively invisibly. Third, statistical infrastructures both shape and are shaped by the 'conventions of a community of practice'. For example, the ways in which single employment files were structured and completed involved several principles of ordering, a conventional writing style, and various specific ways in which the files as a whole were stored within the AA offices. Fourth and intimately linked to the former points, official statistics as infrastructure embody standards that is, other infrastructures (e.g. spatial organisation of state territory, the alphabet, clock time). Fifth, since statistical infrastructure is large, scalar, and complex, and because it means different things locally (or nationally), it is difficult to change 'from above'. Changes, as this thesis will demonstrate, take time and negotiation, as well as adjustment with other aspects of the systems involved.

² Scale, like place and space, is a complex geographical term. Scale has been the subject of considerable theoretical reappraisal within human geography (Marston 2000; Marston, Jones III et al 2005; Leitner and Miller 2007). Unlike some who have called for the rejection of a hierarchy of scales from the 'local', even the embodied, to the 'global', I want to retain its analytical usage, not least for its potential in continuing to enhance our understanding of the history and geography of official statistics (see Chapter 2). Moreover, statisticians and

fundamental aim of this dissertation is to show that historical statistics should not be considered a self-evident technical necessity, as if the economy, the labour market and the various human economic activities performed were merely mirrored in it. By contrast, conceiving official statistics in terms of a socio-historical ‘infrastructure’ (Bowker and Star 1999) allows us to recognise that statistics have a history and geography just like other intersecting institutions and practices which produce and represent the economy and the social world via forms of public description and action. In contrast to what quantitative economic historians and some social policy analysts suggest through their scholarly practice, statistics and their data productions should not, I suggest, be relegated to footnotes, compressed in tables or placed in appendices. Their history, rather, should be integrated within the wider socio-political context within which they are produced and used.

1.2. The Context of the Thesis

Broadly, three main phases can be discerned as central to the development of modern labour statistics in Germany, and other European countries.³ The first occurred roughly in the second decade of the last century. One impetus was the outbreak of the First World War, generating governmental efforts to allocate men and women to military production and the army; to monitor movements in prices and wages; and to suppress industrial unrest. Another impetus was the establishment of the labour administration under the auspices of the state government, the introduction of state unemployment insurance, and the opening of a network of local labour offices between 1890 and 1927. In the German case, the first aggregate statistics on a

labour administrators were concerned with scales (without using the term). As this dissertation demonstrates, statistical gazes played out through different scales and were, in turn, partly constituted through official statistics as an inventory of ordering and seeing (Chapters 3 and 6 in particular).

³ These broad historical phases are more pertinent for the German case, especially with regard to the Nazi period identified below as a second phase. Nevertheless, at various occasions in this thesis I refer to secondary literature which suggests an important significance of the Second World War for national statistical experiences. In this sense, the experiences of the 1929/30 world economic crisis, the world war and, to a certain extent also fascism are not constrained to the German context alone. The consequences of each on the development of national statistical systems and labour statistics more specifically have been researched by Hyman and Price (1979) and Davidson (1985) for British labour statistics; Besson and Comte (1981) for French unemployment statistics, by Didier (2009) for US labour (and agricultural) statistics, and by Prévost and Beaud (1997) for national statistical systems in comparative perspective. I will return to the significance of war for the development of official statistics in the course of this thesis.

national level were published in 1903 on behalf of the department of labour statistics within the Imperial Statistical Office. These initiatives, further explored in Chapter 3, provided the motive for and were enabled by a considerable elaboration in statistical techniques and coverage.

The Nazi seizure of power in 1933 and the 1939-45 war signified a second phase in which official (labour) statistics were crucially modified and extended. New databases were established in the attempt to mobilise labour for economic planning and the war. Nazification of the labour administration along the lines of utility, racial corpus, as well as of the Fuehrer-principle had serious effects upon, and was partly propelled by the statistical infrastructure. ‘Labour market’ and related terms were banned from official language. Willeke’s study set the term in inverted commas, for example, and dedicated considerable attention to attempts to define ‘labour market’ (Willeke 1937: 1-19). Long-standing criticism of whether or not the labour market was a market *sui generis* to be described in abstract quantitative language powerfully merged with the revaluation of ‘national labour’ and the re-ordering of labour relations under Nazi labour and economic policies. What hitherto was subsumed under ‘labour market statistics’ – firmly established in 1920s dictionary entries and textbooks (e.g. Berger 1926: 135f.; Lins 1923) – became again ‘labour statistics’ (Scharlau 1939). With the urgent demands for mobilisation of labour during the Second World War, the term underwent a further crucial modification to become ‘statistics of labour deployment’ (*Statistik des Arbeitseinsatzes*; Scharlau 1943).

A third phase may be discerned in the period from the late 1940s. This is the period that concerns this thesis. As I shall argue, this period lasted until the mid-1970s when the social and economic management of Western Welfare states and their cognitive and institutional network of social representations underwent a considerable transformation in response to economic crisis.⁴ With regard to the 1940s, the requirement to re-construct Europe demanded internationally comparable statistics for labour and population. Increased governmental responsibilities to manage the economy and labour not only reinvigorated the established nexus between unemployment insurance and placement policies, but also extended ‘employment policies’ by ‘manpower’ qualification and institutionalised labour

⁴ These developments may well be taken to demarcate the beginning of a fourth phase in the development of modern labour statistics in Western countries.

market research. Simultaneously, the German statistical infrastructure was crucially modified with the introduction of the StBA Mikrozensus in 1957, a representative statistical survey for the continuous observation of the population and working life (*Erwerbsleben*). The boundary between labour statistics (*Arbeitsstatistik*) and employment statistics (*Erwerbsstatistik*) remained contested during the period under study. This broad demarcation – generally accepted, from the 1980s, by quantitative historians and statistical practitioners alike (Herberger and Becker 1983; Hohls 1991) – was anything but self-evident to contemporaries, even though crucial directions had been already evident within late nineteenth-century official statistics.

Repercussions of the Nazi period made their presence felt in post-war semantics. Maaßen, for example, confusingly used ‘labour market statistics’ (Maaßen 1950a) and ‘labour statistics’ (Maaßen 1950b) to account for the same thing, that is the official re-introduction of labour statistics in West Germany in April 1950 (This is an issue noted in Chapter 4). His ambiguous employment of the terms echoed the reluctance evident with respect to the ‘labour market’ of the Nazi period. Throughout this thesis, the aftermath of the totalitarian regime and the Second World War which followed plays out in different ways. Not only were labour statistics crucially developed during the 1930s. Professional careers, habitualised ways of working and seeing with and through the labour statistical infrastructure, and not least various sedimentary classificatory systems and semantics were intimately connected to it and reverberated through the post-war statistical landscape (Chapters 4, 6, 7, and 8).

Contemporaries further summarised the broad evolution of official statistics in terms of economisation, standardisation, transnationalisation, and centralisation. The longer transition from more demographic and cultural to economic pre-occupations, as well as the statistical inclusion of the economically unstable and poor part of the population from the late nineteenth century became fully operational during the mid twentieth century (Fürst 1963). This, I shall suggest, mirrors the overall attempt of welfare states to promote welfare (*Fürsorge*) through economic growth and other measures to include the economically weak and socially deprived. In this context, statistics gained importance, because of their utility in economic observation and analysis.

Simultaneously, from the late 1940s, a transition from more accidental and pragmatic accounts in producing official statistics to questions of standardisation or, similarly, to more ‘systematic’ statistical infrastructures has been identified as the major factor of change to which the role of official statistics had been subject (e.g. Streißler 1962; Fürst 1963; StBA 1972a). Questions of standardisation of national official statistical systems, or, even more of a challenge, of the collection and publication of comparable and harmonised data had been gradually transferred after 1945 to transnational governmental bodies or governmental organisations, such as the OEEC/OECD, UN, and, since the early 1950s, the SOEC (Statistical Office of the European Communities). This dissertation reflects upon the internationalisation of statistical discourse by the incorporation of OEEC/OECD and, to a lesser extent ILO activities into the overall research design (Chapters 5 and 7).

A strict single definition of what labour statistics mean, what they comprise and claim to measure would inappropriately pre-configure and even curtail the narrative which follows. This thesis is about how labour statistical content and scope, as well as make-up, were negotiated by various actors within a range of state institutions and with reference to a contingent body of statistical techniques and theories. A brief analysis of ‘labour statistics’ as a ‘keyword’ (Williams 1988) reveals that even contemporary labour and official statisticians used the term confusingly. ‘Labour statistics’ was a generic term for a series of statistics different in nature and purpose. Looking at a sample of lexical entries in *Handwörterbücher* and related articles written by personnel we will encounter further in the course of this study discloses that there were five different terms that related in some way or the other to labour statistics: *Arbeitsstatistik* (‘labour statistics’, Maaßen 1950b; Galland 1958), *Arbeitsmarktstatistik* (‘labour market statistics’, Maaßen 1950a; Luyken 1956, Karr 1976), *Erwerbsstatistik* (‘labour statistics’, (Karr 1968), *Beschäftigungsstatistik* (‘employment statistics’, Zopfy 1959a), and *Beschäftigtenstatistik* (‘statistics of employed persons’, Galland 1956; Hoffmann, Hoyer et al 1972). As I hope to show, an internationalisation of official statistics shortly after 1945 further complicated the semantic field; from this period the terms ‘manpower statistics’ and ‘labour force statistics’ entered West German parlance.

The distinctive yet unsystematic lexicon regarding statistics has a broader history and geography, discussion of which forms a crucial part of this thesis. As will be shown in Chapters 2 and 3, the idea of labour statistics as discourse encompasses various institutional providers (with the BMA and BAVAV or StBA as the main official institutions), different work organisation, methods of data gathering and administrative context (representative sample versus administrative statistics), and various ways in which humans and objects were described and counted. The relationship between StBA *Mikrozensus* and the BAVAV labour statistics is central to this thesis in various ways. Both define the post-war ‘spaces’ within which official labour statistical data was gathered, processed and published. As will be shown, the relationship between them cannot be adequately examined in institutional terms alone. What follows reveals differences in terms of method, professional background and with regard to the characteristics covered which, together, infused labour statistical discourse. A history of both spaces reveals that issues of reliability in statistical activities and, more broadly, trust, essentially circulated around the different methods and techniques of data gathering deployed in the respective spaces. As will be shown in Chapters 2 and 3, this dissertation takes seriously Beaud and Prévost’s appeal that ‘[b]y blending various kinds of historiographies, by making use of tools originating from various disciplines, it becomes possible to examine more closely things that are usually taken for granted: ‘black boxes’ need not remain entirely opaque’ (Beaud and Prévost 2000: 8). Accordingly, I am less concerned with more traditional social scientific approaches to the welfare state with their concern for the origins and development of social policy, the classification of welfare systems or institutional processes involved (Esping-Andersen 1990; Clasen 1994), than with scholarly work that emphasises the role of academic and governmental expert groups and various forms of social scientific knowledge. Here, I refer to historical research on the early history of statistics, which, in review, allows this thesis to bridge work in economic and social history, and the history and geography of official statistics and technology.

An ‘epistemological history’ (Topalov 1994; 2001) raises awareness about the construction of cognitive instruments as the basis for public action and their concomitant political and social projects. Sociohistorical research pays close

attention to the institutional forces and social groups in the lives of individuals in professional contexts and social networks. In this context, historians have identified statistics in post-war Germany as one of the crucial spaces of rapid technical and social scientific knowledge diffusion and application (Metzler 2002; 2005: 154f.; Hesse 2010: 27; 309). Development of federal statistics since the mid 1950s in particular has been interpreted varyingly as an attempt to rationally come to terms with the complexity of an emerging consumer society (Metzler 2002), or as an extension of state action (Pinwinkler 2004). Metzler emphasises the much broader significance of statistical debates for historiography, since they epitomise some of the 'leitmotivs' effective for political developments during and after the 1950s. Insight into the history of economic knowledge (e.g. Tooze 2001) and the historical sociology of quantification (e.g. Porter 1995; Desrosière 1998; 2008a; b) has also been provided, albeit, as this dissertation emphasises, not necessarily for the post-1945 period.

A cultural history of state administration (Becker 2003) tries to understand the history of technology and the material culture of bureaucracy. Official statistics, their work organisation and the machine technology employed can be placed in this context (Tooze 2004). Lastly, a rich body of socio-historical work on unemployment as a social category set out to think about and bring together thought, action and (mainly statistical) description of unemployment during the twentieth century in various European contexts and in the US (Salais, Baverez et al. 1986). By focusing on the 'invention of unemployment', the authors attempted to carry the study of unemployment beyond the realist epistemology of neo-classical economics, which in its basic forms governed public debates on that matter in terms of supply and demand. By analysing the nature of governmental unemployment measurement and the ways of registering the unemployed administratively, Salais et al. were concerned with more fundamental forces operating simultaneously on both sides of the labour market during the early twentieth century. Their study of the French case stimulated much work on the invention of unemployment and the categorisation of indigent populations (see Chapter 3). This body of work, however, hardly focused on the mid-twentieth century.

Adopting a Franco-British perspective, only Whiteside and Salais (1998) extend the movement's earlier research perspective by investigating the actual institution-building around questions of work, employment and governance of the economy between the 1920s and the 1950s (see also Whiteside 1999 for a British example). Whilst geographically inappropriate for the present context, they posed crucial questions relevant to this thesis: What exactly was the full employment model of the (German) welfare state? How did it operate in terms of labour market policies and in terms of governance of the economy? How far did it rely on a standardisation of socio-professional categories? How did the forms of state intervention change in the course of economic transformation? Wagner's suggestion that Whiteside and Salais' attempt to rethink essential elements of the mid-twentieth century experience with 'economic modernism' could be extended geographically to 'include other West European countries', and temporally 'towards similar analysis of the alleged heyday of Keynesian interventionism and the first signs of its demise during the 1960s and 1970s' (Wagner 1999b: 156) was a prompt to my thinking and is further explored in what follows.

1.3. The Structure and Focus of the Thesis

Chapter 2 accounts for the intricate relationship between 'statistics' and 'politics' and takes crucial steps in developing a research programme for the historical analysis of mid-twentieth-century official statistics. The notion of statistics in Foucault's 'governmentality', as well as in post-Foucauldian governmentality scholarship is critically evaluated. This discussion follows assessment of the scholarly work of a French 'thought collective' on the 'politics of statistics' (Desrosières 1998; 2008a; b; Boltanski and Thévenot 2006). Issues of trust, discipline, power, and moral justification, as well as the materiality of official statistical practice are also examined. Chapter 3 further introduces a history of labour statistical evolution, the personnel and professions involved as well as some of the techniques employed for data gathering in the period 1890-1973. The 'double nature of statistics' (Desrosières 2008f) as at the same time an instrument of government and of scientific evidence is

given particular attention in that professional and educational backgrounds of German social statisticians are presented as well as governmental structures and institutions within which official statistics were produced, debated and published. A particular focus is on the evolution of the West German labour administration. Further remarks refer to the archival evidence for this dissertation and to the methods employed.

Chapter 4, the first empirical chapter, shows how the labour statistical infrastructure was re-established in Germany after 1945 and how the main component, the employment files, became an object of debate within the BAVAV, and between state ministries and the labour administration. Chapter 5 turns to parallel transformations of German statistical discourse during the 1950s and early 1960s, namely the dissemination and reception of the labour force sample survey through the OEEC Manpower Committee and its reception at the StBA; ‘mathematisation’ of statistics as an expression of both the advancement of higher mathematical calculus and institutional and professional transformations experienced as mathematisation by contemporaries; and the contestation of public figures against the background of mutual scepticism between official statisticians and German ‘strong poets’.

Chapter 6 takes up the issues in the previous chapters and shows how debate on the employment files – generated in 1935 and re-established in 1950 – as the basis of quarterly official labour statistics was centred on the question of which statistics for which polity. This involved different ‘statistical gazes’ at different scales among labour administrators, bureaucratic officials, and social statisticians. Chapter 7 carries the narrative further into the early 1960s and examines the emergence of employment forecasts and their hesitant reception by German statistical experts during the 1960s. It shows how the ‘manpower revolution’, disseminated, among others, under the auspices of the OECD further problematised the labour statistical databases in that the closure of ‘gaps’ and the acceleration of data procurement became more pressing. At the same time, the kind and nature of data sought was also to change. Labour statistics were now to become part and parcel of a concern to code, count, and forecast the invisible labour force.

Chapter 8 takes up issues in connection with the employment files and examines the ways in which labour administrators within the StBA, the BAVAV and the BMA unsuccessfully attempted to put them on sound legal, administrative and statistical bases. This is done against the backdrop of an examination of the extent to which the simultaneous ‘manpower revolution’ during the early 1960s re-defined labour statistical discourse and the institutions of labour market observation in West Germany more broadly. The ‘scientisation’ of labour market observation and attempts to coordinate and institutionalise occupational knowledge as a ‘state science’ constitute the main focus of this section. Chapter 9 shows how labour administrators, mathematicians and economists – pushed forward by public voices critical of the miserable condition of labour statistics during the 1960s – went about coordinating and justifying their actions towards a new statistical infrastructure of employment from early 1967. It is shown how deliberations on the new statistics were from the outset characterised by a clear demarcation from the intimate relationship between human manual labour and paperwork which predominated in the earlier production of labour statistics. Ministerial ‘machine dreams’ at the interface of technological and political discourse not only propelled forward these statistical efforts in technical terms, but also served to politically justify their necessity. Issues of trust, legibility and power, however, remained important analogous to previous such efforts.

Labour statistics comprise a much broader spectrum of statistical production and consumption than this dissertation is able to address. Given this complexity, several restrictions must be noted. This dissertation primarily focuses on issues in relation to the production and circulation and reception of official labour statistics. In this regard, issues of science communication or ‘popularisation’ (Shapin 1990), that is, the ways in which statistical knowledge was transmitted in public places, are crucial in that public contestation and statistical production from non-official spaces form part of the background against which official statisticians struggled to establish both their credibility as professionals and trust in their numbers. The ways in which these statistical activities and products were made credible and justified, however, stays in the background of this thesis wherever visualising techniques such as graphs, tables, curves, or cartograms were implied. Only in Chapter 6, do I turn to these techniques

in order to show how a cartogram helped establish credibility for a non-expert readership where mathematical formulae as ‘objective’ rules and comparison with other statistical series had failed to do so. There are two reasons for my more restricted focus. First, the analysis of visual or graphic representations speak to the senses in a different way; the analysis of their symbolic power requires visual methodologies (Nikolow and Schirmacher 2007). Second, in order to be able to follow the overall aim of this study, that is to relate statistical and political form to each other, the focus on statistical infrastructures and productions have proven to be analytically more adequate and empirically more rewarding than issues of visualisation and ‘statistical pictures’ (Nikolow 2006). The fact that statistical production and publication refer to two different stages within the statistical production cycle, and often are spatially separated within statistical institutes justifies treating them analytically as separate in this thesis even although they belong together.

This does not mean that the analysis disregards ‘the’ public or non-expert milieu altogether. The empirical focus is with the respective spaces as resource and with the mutually constitutive making of statistical knowledge in and through different sites and institutions. Chapters 4, 6 and 9 together present an argument that the frailty of human manual labour with which the data gathering processes were marked seriously hampered the reliability of the statistical production and hence the accuracy of the numbers. Electronic data processing and machine technology, established by the early 1970s only, symbolised an important step for labour administrators and statisticians to enhance the credibility of their statistics towards both experts and non-experts. Chapter 5 shows that there were competing discursive modes for the description of the social by relating the philosophical discourse of ‘experience’ and ‘poetry’ to the rational discourse of evidence and aggregate numbers. Chapter 9 argues that the establishment of a new statistical infrastructure of employment within the BA was partly driven by criticism from a range of consumers of statistical data such as the DGB, *Länder* ministries, and the SVR. Generally, however, in this dissertation, questions of how any situation of (un-)employment was represented across different scales primarily refer to issues of description (the lexicon),

nomenclature (classification), statistical technique and method (material objects, such as file cards, as well as numbers and counting), and administrative practices.

In this sense, issues of (in-)visibility are, I suggest, by no means a *quantité négligeable* in the workings of official statistical as ‘infrastructure’. As will be shown, official statisticians expended much of their energies to make invisible the production process behind official figures. Occupational experts made their classificatory systems easy for non-experts to use with the effect that their logical incoherence remained invisible and was thought best to remain so. These issues, however, involve broader concerns of (in-)visibility which reach beyond the visualisation techniques that were used in connection with the publication of data in order to make apparent and thence to establish abstract relationships between data elements, relationships which otherwise would remain hidden, even inaccessible.

From the early twentieth-century, official statistics started to capture almost anything and labour statistics were no exception. By the early 1950s, their organisation and production in West Germany had reached a level of complexity and output well beyond the scope of this dissertation. Since a large part of contemporary labour statistics were derived from workings of the labour administration proper (see Chapter 2.6.), potential data sources and the statistics produced were, technically, as huge as the immensity of information produced on a daily basis by labour administrators, placement officers, and other street-level workers. As BMA administrator Dr Theodor Galland, arguably the most knowledgeable single person in labour statistical issues admitted, ‘labour statistics increasingly develop into an area of expertise, which gives trouble to survey to even those who work in it day by day’ (Galland 1956: 10).

In the light of such abundance, this dissertation primarily focuses on the institutions of the labour administration proper (BMA and BAVAV) where the core of contemporary labour statistical activities took place. Other institutional and organisational spaces such as the OECD, the StBA and the DStG, complement the reconstruction of mid twentieth-century labour statistical discourse. Particular focus is laid on the ‘infrastructure’ and the techniques, politics and practices involved in maintaining, improving or changing it. This has involved analysis of numerous archives and in particular, of the major data gathering and producing activities in

connection with placement service and occupational counselling based on a file system until 1963, and on an insurance card from 1973. The statistics derived delivered data primarily on vacancies and placing, occupation, unemployment, and employment. Other statistics such as wage statistics, statistics on hours worked, unemployment insurance, let alone the manifold special surveys (*Sonderhebungen*) on behalf of the BAVAV remain largely underdeveloped. As we will see throughout this thesis, statistical data and the logics involved were inscribed in various administrative and governmental attempts to secure information about the workings of the West German and international economy. In this context, attention to the techniques such as labour forecasting (Chapter 7) and representative sampling (Chapter 6 and 9) extend my analysis of labour statistics.

1.4. Notes on Procedure: Translation, Abbreviations, and Appendices

This dissertation is also a work of translation. With the exception of the OECD Archives, archival material for this thesis is in German. All translations from German-language material are mine. In order to retain the cultural meanings embedded in linguistic expressions, short sentences, catch phrases, or key words are kept in the original German within the main text body italicised in brackets after the English translation. Original quotes are gathered in an appendix ordered by numbers of footnotes (as they appear in the main text) for unpublished archival material, and by page numbers for published material (Appendix II). Quotes from French-language secondary references are kept in the original version. A glossary of abbreviations of German institutions relevant to the historical narrative is to be found at the beginning of this dissertation.

The professional life of leading personnel has increasingly become important in the course of writing this thesis. In order not to clutter the narrative, I gathered relevant information on some key actors in a further appendix at the end of the dissertation (Appendix I). This appendix contains biographical notes on the relevant contemporary leading personnel in state ministries, universities, and the BAVAV/BA labour administration. Persons listed are key figures in relation to the topics

presented in this thesis. Biographical notes on less significant actors are contained in footnotes to the main text. Information for the list below was taken from literature as indicated; the Federal Archive Online edition of the cabinet protocols of the Federal Government; the BA repository on the History of Labour Administration in Germany (*Sammlung (Dokumentation) der BA zur Entwicklung der Arbeitsverwaltung in Deutschland, SEAD-BA*).⁵

⁵ The assistance of Stefan Pabst in the SEAD-BA in putting together these notes is gratefully acknowledged.

2. Towards a Historical Sociology of Twentieth-Century Official Statistics

2.1. Introduction

Jasanoff (2004b) gathers rather dispersed research perspectives and traditions under the ‘idiom of co-production’. The notion of co-production, in a general sense, is intended to investigate the links between culture, knowledge and power, or, as Jasanoff states, to explore ‘how knowledge-making is incorporated into practices of state-making, or of governance more broadly, and, in reverse, how practices of governance influence the making and use of knowledge’ (Jasanoff 2004b: 3). This chapter takes the umbrella of ‘co-production’ as a guiding principle for the study of the welfare state as a historical invention and social reality. In this case, as will be shown, the ‘idiom’⁶ of co-production invites research at the interface between sciences and the state as a mutually constitutive relationship that comprises both the *scientisation* of social policies and the *politisisation* and bureaucratisation of expert knowledge.

Desrosières’ work is particularly suggestive for the present context (Desrosières 1998; 2008a; b). As will be shown, as a result of his exceptional scholarly position as at the same time practitioner of the arcana of French official statistics and author of historical and sociological studies on statistics, Desrosières offers invaluable insight into the relationship between (democratic) political orders and statistical expertise. Most importantly, his research reminds us to consider statistics as at the same time an instrument of government (*outil de gouvernement*) and of scientific evidence (*outil de preuve*). In this double sense, statistics, for one, describe the assemblage of quantitative information about a society, and the economy in particular, gathered in the name of the state. The same word refers to mathematical techniques and arguments about the treatment of such data with regard to large numbers (people, money, goods, molecules). It is probably the sociologist’s and historian’s most exciting task to examine this polysemy with regard to its social (and geographical) effects: the power relations of the former (government) and the scientificity of the latter (scientific evidence). But as Desrosières clearly warns:

⁶ Jasanoff theorises co-production in terms of an idiom rather than a ‘full fledged theory, claiming law-like consistency and predictive power’. Co-production is understood as ‘a way of interpreting and accounting for complex phenomena so as to avoid the strategic deletions and omissions of most other approaches in the social sciences’ (Jasanoff 2004b: 3). In this sense, as Jasanoff states elsewhere, the co-productionist mode offers an integrative as well an interdisciplinary framework (2004c: 43).

‘Cette double nature de la statistique implique que la sociologie de l’expertise statistique doit imaginer un programme de recherche spécifique, en partie différent de celui d’autres formes d’expertise’ (Desrosières 2008f: 59). The ‘double nature of statistics’ thus requires a research programme that pays attention to both political sociology and history of public administration, as well as to the history and sociology of sciences. The sections that follow review scholarly work in the attempt to develop such research a programme for the analysis of twentieth-century official statistics.

Foucault’s analysis of ‘governmentality’ will be shown to have broadened the concept of ‘government’ to include particular forms of state knowledges and sensitivity to the ways in which these interact with the problems of government in Western societies. Foucault’s arguments thus offer cause and justification for this thesis in its being concerned with technical-statistical matters of government. There are, however, several shortcomings of Foucauldian analysis, which only partially arise from the fact that neither Foucault nor any of the Foucauldians – with one major exception⁷ – have actually embarked on historical-geographical analyses of official statistical infrastructure or of statistics as a state science. A brief review of Curtis’ critical remarks (Curtis 2001: 38-40; 2002) will show that Foucault’s analysis of governmentality and population relies on a historically problematic conception of ‘population’. For Curtis, it is not only doubtful whether ‘population’ existed as a developed abstraction in eighteenth-century political thought and practice persisting (with minor variations), as Foucault claims, until the present. It also unclear whether or not the statistics were technically capable of delivering the data required to quantify the regularities of population phenomena on a wider (national) scale. These empirical problems might be attributed to the schematic character of Foucault’s analysis presented in the format of lectures (see especially Foucault 2007: 87-114). Foucault repeatedly left it to ‘the historians’ to work out details (e.g. Foucault 2007: 104). Further, given the high level of abstraction in Foucault’s analysis, the question of how ‘governmentality’ emerges can only be addressed with reference to geo-historically specific social settings. However, Curtis’ second point will be shown to strike at the substance of the claim Foucault makes about the origins of ‘governmentality’. Following Curtis, ‘population’ cannot be ‘discovered’ by political

⁷ Matt Hannah’s research on the nineteenth-century US census (Hannah 2000) and late twentieth-century census boycott movement in West Germany (Hannah 2010) is the exception here. I briefly discuss his work below.

authorities, as Foucault claims, for its existence as a politico-statistical abstraction depends upon the work of a particular kind of sovereign authority itself. The chapter moves on to show that the circularity in Foucault's argument originates in his reductionist analysis of the relationship between statistics and the state: the latter, Foucault seems to suggest, controls the statistical apparatus, itself depicted as of little social life and scientific practice of its own. I argue in favour of Foucault that the reductionism at this point can be explained by the empirical focus of his historical analysis: the smaller states of seventeenth-century Germany and Ireland occupied by England in the same period. The case of military occupation probably more so than the German case suggests that Foucault conceptualised statistics 'as an essential dimension of the exercise of power' (Foucault 2007: 275). A brief review of relevant literature on censuses offers alternative readings to Foucault's own. The scholarship on twentieth-century statistics also invites us to re-focus the conceptual apparatus for the analysis of official statistics – an invitation that is laid out further in this chapter.

The argument, however, does not stop here. I argue that the problems with Foucault's account become particularly pertinent as founding texts of so-called governmentality scholarship⁸ seem to have acritically imported some of the issues (Miller and Rose 1990; Rose and Miller 1992; see also Rose 1991; 1999: 197-232; Miller 2001).⁹ It is, again, Curtis who has shown convincingly that Foucauldians adopted Foucault's analytical focus with regard to the notion of 'population' rather unquestioned in their wider attempt to decentre the analysis of the state under liberalism (Curtis 2001: 42). If Curtis' refutation of Foucault's analysis is sound, this argument cannot be sustained because 'population' in its modern sense has to be regarded as a category of state in which case it makes little sense to argue that the state 'discovers' it (Foucault 2007), and, equally, little sense to argue that political

⁸ I argue that governmentality scholars can easily be subsumed under the category 'governmentality', or even be gathered in a 'school'. In this sense I claim that Rose protests too much when he writes: 'The kind of work undertaken under the sign of 'governmentality' has been splendidly varied: it is neither homogenous school or a closed sect' (Rose 1999: 9).

⁹ Both Miller and Rose (1990) and Rose and Miller (1992) were much acclaimed as 'excellent and influential' by governmentality scholars (Hannah 2000: 22) and continue to being a point of reference in developing 'governmentality' as an analytical perspective (see Bröckling, Krasmann et al 2011: 11 for the most recent example). Both articles were re-printed in a recent collection of papers (Miller and Rose 2008a). Miller and Rose's theoretical stance towards 'statistics' does not seem to have altered much with regard to these previous works as the introductory essay to their volume confesses. Surprisingly, this time, statistics have turned from a 'technology' to a 'practice' (Miller and Rose 2008b: 11). The replacement in passing of one label by another either illustrates a lack of terminological rigorism or indicates a diffuse notion of what either label actually describes – a criticism that will be further elaborated in section 2.2.2 below.

sociology can move ‘beyond the state’ (Miller and Rose 1992) by focusing on population (see Curtis 1995 for a more general criticism). The chapter goes further than Curtis and suggests that Foucauldians, in their argument against an overevaluation of the ‘problem of the State’ in political debates and social theory (Rose and Miller 1992) unreflectingly adopt the reductionist and schematic conceptualisation of statistics – this time conceived as a ‘technology of government’. More precisely, behind the notion of government as a ‘technical process’ (Rose and Miller 1992: 185), governmentality scholars will be shown to run the risk of overgeneralising the seventeenth-century conception of statistics that was put forward by Foucault disregarding both historical context and statistical content. As a consequence, their analysis buys into Foucault’s rather abstract and, consequently, overly coherent analysis of statistics and the state. On a conceptual level, the chapter follows Dean (1996) to show that the indiscriminate use of the term ‘technology’ – under which ‘statistics’ are subsumed – Foucauldians tend to reduce the technical side of government to the merely technological disregarding the variety of ways in which the categorisation and ordering processes by administrative agencies work. Further, by focusing on these more technical terms, the authors tend to obscure the historically distinct relays and linkages that exist between expertise (whether technological or not) and specific forms of political and societal order.

In the attempt to develop a research programme which takes into account the ‘double nature of statistics’, the chapter moves on to present the work of post-Bourdieuian French sociologists (Desrosières 1998; Boltanski and Thévenot 2006). Their argument that different political representations entertain different legitimate forms of statistical knowledge is important to the present context in that it allows to think together the co-construction of political and statistical forms across a range of scales from the cognitive coding and counting to different modes of public thought and action in the wider context of governmental institutions and state forms.

Historical work on technology within state administration, I shall argue, further complements this perspective (Becker and Clark 2001; Becker and von Krosigk 2008; Becker 2011). Situated within a wider scholarly project of a ‘cultural history of administration’ (Becker 2003), this research helps to account for the administrative context within which labour statistical procedures in particular are

situated. Further, focus on ‘structures of bureaucratic apparatuses’, as mentioned by Becker (2011) helps to analyse the mid-twentieth century state with a focus on its main material and administrative foundations.

The research programme also benefits from Salais et al’s (1986) seminal work both on the late nineteenth-century ‘invention of unemployment’ as a social category, and actual institution-building around questions of work, employment and governance of the economy between the 1920s and 1950s. Their study on the French case (Salais, Baverez et al 1986) has stimulated much work on the invention of unemployment and the categorisation of indigent populations in Germany (Zimmermann 2006); in France/Great-Britain/US (Topalov 1994); in France/Great-Britain (Mansfield, Salais et al. 1994); and in France/Germany (Wagner, Didry et al. 2000). The conceptual framework laid down in Salais et al. (1986) – baptised as ‘classical’ (Gautié 2002: 60) – proved to be fruitful for studies on more recent transformations of unemployment, especially under the more pronounced label of its ‘deconstruction’ (Gautié 2002; Salais 2004; Salais 2007). Taking this scholarship as inspiration, this and the following chapter extend some of its central arguments and perspectives to the mid-twentieth century German case.

The chapter moves on to explore other components important to statistical discourse more specifically such as quantification as a social practice; the materiality of statistical practice; different discursive modes in statistical reasoning and public debate; objectivity as a scientific concept and explicit geographical problem; and survey and administrative register as the two main sources of official statistics.

2.2. Twentieth-Century Statistics as a Boundary Object between Sciences and the State

Sociological and historical research on social statistics is commonly undertaken within two distinct domains: political sociology and sociology of scientific knowledge (Desrosières 1997/2008: 116). Broadly speaking, researchers in *political sociology* analyse the place of statistics in the development of the modern state and their impersonal bureaucracies. In this perspective, ‘the avalanche of printed

numbers' (Hacking 1982) between the late 1820s and 1840s is deemed important, when statistics became a widespread practice concomitant with the rise of the nation-state attracting the solicitous attention of reformers and ruling elites alike. Political sociologists either refer to Weber and his early emphasis on the increased governmental use of social knowledge associated with capitalism from its earliest beginnings, or to Foucault's analysis of 'governmentality' (Foucault 1991). Foucault's 'governmentality' initiated a whole series of studies, which considered statistics as a 'tool of government' or a 'technology of power' by which the operation of government was made possible cognitively and empirically, through the accumulation and classification of facts about the domain to be governed (see Chapters 2.2.2 and 2.2.3 below). Similarly, statistics have been studied as an essential component of a 'sociology of modernity' set between 'liberty and discipline' (Wagner 1994a). Statistics, in the wider context of empirical social research, is depicted as a 'postliberal technology' (Wagner 1994a: 106) in the sense that they construct individuals to make them amenable to policy action. The term 'postliberal', for Wagner, describes the ambivalent character of 'organised modernity', where the state does not attempt to align in the best way possible its own resources with appropriate orders to its subject, as did the absolutist 'police state'. Rather, commercial and policy elites in an interventionist state with the full inclusion of the masses accepted individual autonomy and were 'interested to know what the human beings would do if they were exposed to certain offers, and then they structure their offers in such a way that the outcome is acceptable and order is maintained' (Wagner 19994a: 107). For Wagner, statistics and its classificatory infrastructure are to be considered as technological instruments to discover *and* create stable elements (e.g. statistical regularities such as time lines and social classes) in post-revolutionary societies. 'Postliberal' practices of representation hold 'images of human beings as consumer, voter and subject as versions of the promise of human beings as the producers of their means, the citizens of their polity and the interpreters of their own lives' (Wagner 1994a: 107). Taken together, these practices share in producing, and help to reproduce, the order of 'organised modernity'.

By contrast, sociologists of scientific knowledge, generally, read the history of statistics by tracing the formulations and usages of probability theories in science

and everyday life, thus bringing together, as in the case of the Bielefeld group during the 1980s, statistics as quantification of social facts, and probability theories developed mainly within astronomy (see Gigerenzer, Swijtink et al. 1989 for a synthesis). This approach is distinct from political sociology, although, as Desrosières emphasises, there are common reference points, such as the work of Quetelet, who may be held responsible for initiating the diffusion of probability theories between 1850 and 1950 into domains such as physics, psychology, economy, sociology, and biology (Desrosières 2000/2008: 36-38). As Ewald and Donzelot have shown for the French Welfare State of the late nineteenth century, the social security system was built on macrosocial regularities, which were made visible, from myriads of accidental and unforeseeable phenomena in the micro-world by interpretation of frequencies and probability calculations (Ewald 1986; Donzelot 1991). Foucault and Foucauldians merit closer examination in the present context.

2.2.1. Critical Evaluation I: Foucault's Governmentality and Statistics

In his 1977-1978 lectures (2007; 2008) – especially in the ‘governmentality’ lecture published in English in 1991 (Foucault 1991)¹⁰ – Foucault argues that in the eighteenth century, statistics become ‘one of the main technical factors’ (Foucault 2007: 104) in helping the problem of population to emerge. The idea of the emergence of a concept of population, in turn, was central to Foucault’s attempt to write an analysis of state formation adequate for contemporary politics. Statistics, Foucault claimed, had hitherto mainly functioned within ‘administrative frameworks’ in the role of which they were primarily deployed to the benefit of the sovereign or ‘for raising taxes, wealth, and men needed’ (Foucault 2007: 274). At some time in the eighteenth century, in a context characterised by demographic expansion, the increasing circulation of money, and the expansion of agricultural production (cf. Foucault 2007: 103), statistics enabled a shift from this framework of a government of family to one of population through precisely the ‘discovery’ and

¹⁰ This lecture was the fourth of Foucault’s 1977-1978 Collège de France lectures *Sécurité, Territoire, Population* published in 2007 in English (Foucault 2007 87-114). The English translation (Foucault 1991) is of an Italian version published in 1979 and constitutes the founding text of the Governmentality literature since the early 1990s (e.g. Rose (1999: 3) who refers to Foucault (1991) as a ‘starting point’ for his own style of analysis).

gradual reveal of the very object of this new form of government: the population.¹¹ Co-constitutive with the development of the science of political economy – especially in England in the second half of the eighteenth century – statistics helped to demarcate a ‘new’ level of reality which came to be known as ‘the economy’ by focusing on specific problems of the population. Statistics came to target not the individual any more, but population phenomena. As Foucault puts it, population

possesses its own regularities: its death rate, its incident of disease, its regularities of accidents. Statistics also shows that the population also involved specific, aggregate effects [...]: major epidemics, endemic expansions, the spiral of labor and wealth [...]. Statistics enables the specific phenomena of the population to be quantified and thereby reveals that this specificity is irreducible [to the] small framework of the family (Foucault 2007: 104).¹²

This is not the place to empirically assess Foucault’s claims in detail, as this thesis is not primarily concerned with the history of demography or of censuses.¹³ Suffice it to say that there has been doubt about whether ‘population’ existed as a developed abstraction in eighteenth-century political thought and practice. Dean noted that ‘any attempt to read the [eighteenth-century] concept of population as an index of the modernity of political discourse is deeply problematic’. He continues that

the concept of population in eighteenth-century thought of government is strikingly different from its classical liberal (and more recent) uses. It entails neither the formulation of policies and political action by reference to an explicitly economic

¹¹ Curtis tirelessly emphasises that orthodox Marxist accounts of capitalist state formation were an influential intellectual strand against which Foucault developed his argument of the ‘governmentalisation of the state’ i.e., the broadening of the concept of ‘government’ to refer to all instances of the ‘conduct of conduct’ (see also Gordon 1991). Precisely, the ‘discovery of population’, enabled through political economy and statistics and organised through security systems, sustained this transition to the ‘governmental’ state. Its analysis enabled Foucault to carry forward – against predominating economist Marxist state theory – attempts to decentre the state thus echoing the wider concern of ‘how to get rid of Marxism’ (Curtis 2002: 524).

¹² The new *raison d’État* thus required new forms and a new content of knowledge, knowledge of the state itself, and on the basis of itself. The form of knowledge, for Foucault, was twofold: for one, ‘continuous inquiries and reports’ about all fields that were touched and concomitantly co-constituted by the exercise of government power. These forms are essentially analysed in the context of biopolitics i.e., the means by which a group of living human beings understood as a population is measured in order to be governed, and tied to the political rationality of liberalism. Foucault marks here a transition from ‘knowledge of the law’ a sovereign must possess (positive laws of the country, the natural laws imposed on all men, and the laws of commandments of God himself. See Foucault 2007: 273) to ‘knowledge of things’ (and especially the population) that comprise the very reality of the state. It is calculation rather than an earlier notion of wisdom and virtue which is the model for biopolitical rationalities (see Elden 2007: 573). The issue of ‘secrecy’ constitutes the other form of knowledge. This refers to the *arcana imperii*, the secrets of power and accounts for the fact that for a long time statistics in particular were considered as secrets of power not to be divulged (Foucault 2007: 275). See Curtis (2001: 38-40; 2002) for a more detailed discussion of Foucault’s argument at this point. Curtis also draws on a wider selection of Foucault’s publications to present his case.

¹³ See Johannisson (1990); Bödeker (2001); Nikolow (2001) for further remarks on early Germanic statistics. Mackensen, Reulecke et al (2009) offer useful accounts of German, Schweber (2006) of French and English demography.

rationality which is the characteristic of liberal governance, nor the welfarist focus on the enhancement of the life of 'individuals (Dean 1991: 33).

Dean did not pursue such criticism in his own work. But we can turn to Curtis (2001: 38-45; 2002) who dedicated a more detailed critique to what he calls the 'impossible discovery' of population in Foucault's work. Following Curtis, Foucault did not offer a cogent account of 'population' as concept. Foucault invariably uses 'population' for three different concepts which Curtis has good evidence to differentiate, namely populousness, the social body, and the statistical construct 'population' (Curtis 2002: 507-11). In Curtis' words:

An exposition of Foucault's development of 'population' is rendered complex for the reason that he employs the word indifferently to refer to the three concepts in question. The word 'population' is used by Foucault to refer to the concept of populousness, in discussions of police and mercantilism, for instance. The word refers to the collective or social body in discussions of bio-politics. It is used to refer to what I argue is population, properly conceived, in discussions of bio-politics and liberal modes of government (Curtis 2002: 507).

Indifferent usage of the same word for different concepts probably points to a larger issue in which Foucault mistakenly locates the effective emergence of modern demographic concepts in the eighteenth century. Suffice it to say that there are doubts whether the statistics involved in the logic of bio-politics which, according to Foucault 'aims to treat the 'population' as a set of coexisting living beings with particular biological and pathological features' (Foucault 2007: 367), were technically capable of delivering such kind of data. The statistics involved were descriptive rather than inductive. As Curtis notes with reference to Denis (2000), eighteenth-century statistics remain an inventory science concerned with 'the methodological and positive exposition of the objects which compose the wealth and strength of the State' (Denis in Curtis 2002: 528).¹⁴ Even where the logic of the police was historically co-constitutive with the growth of inventory statistics in the eighteenth century, the practices of classifying and counting people, their death and birth remained largely parochial. There were no eighteenth-century population registers on a national level. These inventions remained in their local singularity, and, further, were not paired to an inductive logic that would have permitted the

¹⁴ In fact, Curtis translated a quote from the archives here, which served Denis to define statistics during the Napoleonic era (Denis 2000: 73). See also Bourguet (1987) in support of the general point here: Napoleonic statistics were rather of a regional 'encyclopedic descriptive' character (Bourguet 1987: 306), and were only in the early nineteenth century abandoned for more specialised, numerical, and national surveys.

emergence of conceptions of ‘rates’ – a necessary precondition to conceive populations as an assemblage of statistical-demographic ‘facts’ in terms of birth and death rates, age pyramids, rates of disease etc. As Curtis summarises: ‘What police, populousness, and inventory statistics could not do was to sustain the kind of practices that make it possible for social relations, events, and conditions to appear in the politico-statistical form of population’ (Curtis 2002: 529).

Curtis’ second point is more conceptual and strikes at the substance of the claim Foucault makes about the origins of ‘governmentality’. As outlined above, according to Foucault, the ‘discovery’ of population was the pivot upon which the transition took place from rule based on sovereign authority to a governmentalized rule which decentred the state under liberalism. Modern liberal economic ‘governmentality’ takes population as its main object. Following Curtis, however, Foucault did not address how the problem of population emerges or was discovered; he even remains surprisingly obscure about where this should have taken place. The population problematic is discussed in the broad context of mercantilism, which, according to Foucault, problematized the development of the forces of the state but which could not do so effectively within the framework and with the practices of ‘sovereignty’ (Foucault 2007: 101f.).

Furthermore, logically, the argument becomes circular (Curtis 2002: 524). The fabrication of ‘population’ into such a large-scale statistical concept that was to dispose of a coherent intelligibility across larger state territories arguably required some kind of authoritative, state-related configuration. If that is sound, it is misleading to suggest that population as seen through the lens of statistics emerged independently of such political authorities, and, further, even served as one of the main forces in facilitating the transition from an art of government to ‘political science’ (the ‘unblocking’ in Foucault’s terms; Foucault 2007: 104).¹⁵ This logic implies, as Curtis emphasises, ‘that population exists as an object before the political authority that ‘discovers’ it, [whereas], in fact, population is inextricably a category of state, at least insofar as political subjects are concerned’ (Curtis 2001: 42).

¹⁵ As Foucault put it, ‘the transition from an art of government to political science, the transition in the eighteenth century from a regime dominated by structures of sovereignty to a regime dominated by techniques of government revolves around population, and consequently around the birth of the political economy’ (Foucault 2007: 106).

Notwithstanding the fact that Foucault left it to ‘the historians’ to work out details, logically, the ‘impossible discovery’ proclaimed by Curtis has some purchase: ‘Population cannot be ‘discovered’ by political authorities, for its existence as a political abstraction depends upon the work of a particular kind of sovereign political authority itself’ (Curtis 2002: 529).

This thesis shares the overall perspective on statistics as a particularly successful and powerful state knowledge. Porter is right when he proclaims that ‘I do not know any better place than the history of social quantification to seek out that intersection of power and knowledge now associated with the name of Michel Foucault’ (Porter 2000: 495). Foucault’s focus on the technologies and practices that are associated with the construction of statistical ‘facts’ as well as on the administrative practices that derive from ‘statistical thinking’ will be adopted in the course of this research. My research also subscribes to the co-productionist idea (albeit insufficiently developed) according to which modern government is made operable by the accumulation and classification of facts about the domain to be governed. Moreover, the broadening of the concept of ‘government’ to refer to all instances of the ‘conduct of conduct’ is broadly mirrored in the overall design of this thesis and further developed to think together state-administrative and statistical-technical forms.

That being said, there is a more general point of criticism to make, one that arguably lies at the root of the circularity of Foucault’s argument. Thévenot suggests that Foucault’s analysis of the relationship between state/government and statistics is often reductionist (Thévenot 1992: 141). Even where it is not about individual registration and objectification, the relationship between statistics and the state is largely conceived as a mere subjection of the former under the latter: the state or other forms of government, Foucault seems to suggest, controls the statistical apparatus itself. Foucault’s analysis here lacks theoretical sensitivity with regard to both state and statistics. Not only is a theory of state administration quasi absent in Foucault, he also broadly takes the workings of statistical institutes and statisticians, their conceptions and practices at the level of their own description. For example, Curtis convincingly claims that Foucault – probably due to the schematic character of his analysis – tends to write naturalistically about population. Population, for

Foucault, is an object on which power can act; it flows from one place to the other, it increases or decreases, it changes its character (cf. Curtis 2001: 42). Treating ‘population’ as a ‘thing’ stripped of the various elements and empirical processes of which it is made runs the risk of adopting the language of contemporary demographers or state scientists and their claims to have delimited a functioning concept of ‘population’.

Their discourse, as will be shown in the course of this thesis, intended to construct the state’s ostensibly monolithic front. The façade of a given statistical office was meant to symbolically foster the impression of being at the service of the state. As this thesis will show, however, such impression is first and foremost an impression and, as such, has to be considered as contingent upon distinct political forms, scientific ideals and practices, as well as upon specific legal codification. As with any other governmental project, behind the façade there are competing visions of the statistical future, different practices of academics who theorise the figures, and of statisticians who calculate them, as well as political struggles between different forces, locales, and interest about what should be counted how, and by whom. These elements can only indirectly be subjected to forms of government or political reason. Disregarding these contingencies in historical analysis generally runs the risk of hypostatizing – paradoxically in the attempt to decentre the analysis of the state – the supremacy and power of statistics.

Granted, what from the perspective of eighteenth- and nineteenth-century statistical discourse appears as reductionism, could originate from the geographical focus of Foucault’s historical analysis. Foucault placed the emergence of statistics as state science in the smaller states of seventeenth-century Germany – the ‘micro-state laboratories that could serve both as models and sites of experiment’ – and in Ireland occupied by England (Foucault 2007: 274; 317-8, quote on page 317). Statistics, as Foucault asserts, ‘develops [sic] in the small German states, since the units of research [...] were smaller’ (Foucault 2007: 274). In Ireland – Foucault is alluding to the works of William Petty, ‘founder’ of political arithmetic – the situation for statistics to emerge is considered favourable because in view of the smallness of the country and its military occupation by England ‘it was possible to know exactly what was there and what its resources were’ (Foucault 2007: 274). Petty’s work in Ireland

points to a situation of military occupation and domination as the crucial context in which Foucault came to conceptualise the relationship between the state/government and statistics. Statistics as a crucial part of the ‘administrative apparatus’, to use Foucault’s words, were not only designed as an ‘apparatus of knowledge’, but also as ‘an essential dimension of the *exercise* of power’ over a given (as in this case: occupied) territory and population (Foucault 2007: 274-5; emphasis mine). The case of Petty in Ireland might suggest an immediate relationship between governmental (and military) practice and statistics: the inventory and dividing up of an occupied territory and its population went seemingly hand in glove.

Whatever the empirical soundness of Foucault’s analysis (see Buck 1977 on Petty), the seventeenth-century context of occupation and domination does neither *necessarily* constitute the historical setting for the emergence of modern statistics as state science, nor the blueprint for their development thereafter. Put differently, seventeenth-century Ireland under military occupation and the German smaller states, both of which cases provide the empirical basis for Foucault to develop his conceptual remarks, must be considered as specific once related to eighteenth-century population statistics, or to ‘the rise of statistical thinking’ during the early nineteenth century (Porter 1986). The geo-historical specificity of Foucault’s examples becomes probably even more pertinent with regard to the latter half of the nineteenth century or even the early twentieth century. It is this period – with which Foucault’s research was hardly ever concerned – which witnessed the establishment of official statistical institutes, the generalisation of national systems of civil registration and nominal census enumeration across the Western world (Chapter 2.2.3. below and 3).¹⁶

¹⁶ Another reason for Foucault’s reductionist analysis at this point might be found in his confused and incoherent attempts to analyse the state. As is well known, Foucault – mostly in the context of Marxist debates of the 1970s in France – attempts both to dissociate government from law and the state, by broadening it to include technologies, state knowledges and practices, *and* to make the state into the centre to which all forms of government ultimately refer. (See Saar 2007; 2011: 38-40; and especially Lemke 2007 for good discussions).

2.2.2. Critical Evaluation II: Governmentality Studies on Statistics

Analysing political power through the lens of ‘governmentality’ first and foremost focuses on the many and varied practices, techniques and rationalities involved in the governing of economic activity, social life, and individual conduct. Drawing on Foucault’s governmentality lectures and Latour’s analysis of the technologies which make possible ‘action at a distance’ (Latour 1987), the concept of ‘technology of government’ can be argued to provide the linchpin that links the development of the governmental programmes to the ways in which various authorities (within the state and beyond) have sought to govern the conduct of particular populations and persons (Rose and Miller 1992: 183-7). Inscription and calculation practices and instruments, of which ‘statistics’ serve as the authors’ primary example, are considered pivotal ‘technologies of government’ in this context. As Rose notes with overtones of Foucault’s governmentality:

From about the eighteenth century onwards, to govern a domain – a population, an economy – has entailed seeking to exercise power over it that is modulated by a knowledge of its laws, processes and condition. Statistics here emerges [sic] as one of the key modalities for the production of the knowledge necessary to govern, rendering the territory to be governed into thought as a domain with its own inherent density and vitality (Rose 1991: 675-6).

Statistics, I argue, are broadly understood in their eighteenth-century (and mostly Germanic) conception of a ‘science of state’. Abstracting from Foucault’s historical analysis, the link between government and information is believed to be following the model of *Polizeiwissenschaften*, which constructed a link between a politics of calculated administration of the population – with the ends of wealth, public order and happiness – and descriptive statistics. ‘[T]he operation of government’, as Rose and Miller write, ‘was to be made possible by the accumulation and tabulation of facts about the domain to be governed’ (Rose and Miller 1992: 185). Statistics as, etymologically, ‘knowledge of the state’ are considered part and parcel of an ‘active, technical process’ (Rose and Miller 1992: 185) which, in combination with written reports, drawings, pictures, numbers, charts, graphs helps to bring new objects of knowledge (e.g. the ‘population’ or ‘poverty’) into the world. In an often rehearsed nominalist fashion, numbers are not believed to merely describe a pre-existing reality but also to constitute it. In this sense, statistical categories and later censuses have

made visible and hence delimited spheres for governmental reflection and calculation, such as ‘the economy’, or ‘labour’ which have, in turn, been amended to potential intervention. Statistics from this perspective thus serve a double, mutually constitutive purpose – the expansion of government and the submission of individuals to moral and social goals.

Rose and Miller present a challenging analysis to sociologists of state and state knowledge which usefully stresses the importance of the constitution of fields of political intervention and of the role of bodies of knowledge in political administration. Yet, however fruitful their emphasis on the ‘active’, actual process of governmental ‘representation’, their analysis is, parallel to criticism of Foucault’s approach (see Chapter 2.2.1. above), overly ‘technical’ (Rose and Miller 1992: 185).

The authors, in their concern for the ‘know how’ that has promised to make government possible, fail to present a cogent account of technologies as a particular form of knowledge-based government (Dean 1996). Displaying a historical insensitivity that would have tormented Foucault (whom they cite and bowdlerise repeatedly, for examples, see Rose and Miller’s (1992) case in Curtis 1995: 576, 581, 585), governmentality scholars seem to reduce these technologies to the merely technological. For example, Barry, Osborne et al (1996) argue that ‘instead of viewing technology of expertise as distinct from politics, ‘technical’ terms themselves – such as apparatus, machine or network – best convey a sense of the complex relays and linkages that tie the techniques of conduct into specific relations with the concerns of government’ (Barry, Osborne et al 1996: 13). By focusing on such technical terms (apparatus, machine or network), the authors tend to obscure the historically distinct ‘relays and linkages’ that exist between expertise (whether technological or not) and specific forms of political and societal order.¹⁷ Instead of problematising these relations, or opening the ‘black boxes’, they tend to avoid any reference to the messy actualities in which concretely located discourses and social groups (e.g. professional statisticians) structured and devised knowledge-based technologies (such as statistical infrastructure or reasoning). Not only are these

¹⁷ Latour and his deployment of the notion of networks has been criticised for similar reasons. By merely replacing science or government with notions of network (and technology), a detailed historical and normative analysis is essentially foreclosed. The analogy between Latour and the Foucauldians is not surprising, since much of the governmentality studies literature draws on Latourian ideas of power and representation, assemblages and networks (see Chapter 2.4.2 for a further discussion of Latour).

actualities reduced to the technological; ‘technologies’ as such at times seem to act as a placeholder for a variety of political or scientific aspects and hence remain rather obscure.¹⁸

Curtis goes even further and claims that Rose and Miller (1992) ‘take technologies as empty forms which spring forth from political mentalities. [...] One finds them generating technologies out of reified conceptions, and then assuming the kind of political organization they are at pains to discount’ (Curtis 1995: 586). Not surprisingly, the notion of statistics – the term is often only mentioned in such a historically unspecific manner – is a case in point. From the eighteenth-century statistical project, Rose and Miller claim,

government inspires and depends upon a huge labour of inscription which renders reality into a calculable form’. They continue that, ‘Government has inaugurated a huge labour of enquiry to transform events and phenomena into information: birth, illnesses and deaths, marriages [...] forms of employment and want of employment (Rose and Miller 1992: 185).

The logic of the passage, following Curtis, is typical of a crude idealist analysis: ‘a conception [statistics understood as a ‘technology’] generates a notion [employment] which becomes a project [employment policies] and then a real government steps in to execute it’ (Curtis 1995: 586; my insertions). The state or the governmental institution is reduced to an enactment of the technological imperative itself conceived as monolithic and endowed with *deus ex machina* powers.

If this analysis is sound, it is not surprising to note with Dean that there is a danger of ‘missing the particularity of certain forms of government as they become technological’ (Dean 1996: 48) or, as I would add, as the technological ‘infrastructure’ (Bowker and Starr 1999) inscribed in governmental practice changes. Here, not the abstract conception of technological governmental rule is the problem, but rather how ‘technology’ was used by and partly constituted historically and geographically different political orders. In this sense, the technological character of the state can neither be differentiated from other forms of ‘technology’, nor are the potential insights into the operations at the interface of state, science and technology exhausted in a satisfactory manner. However important Foucault’s follower’s

¹⁸ Interestingly, O’Malley, Weir et al (1997) from within governmentality studies generalised such criticism. According to the authors, governmentality literature ‘tends to generate ideal typifications which often are in danger of being little more than a systematized self-representation of rule’ (O’Malley, Weir et al 1997: 504).

contributions are to the study of scientific practices and material-based governmental rule, I would insist that the discursive relations implied need to be analysed with greater historical and geographical sensitivity, as well as with greater analytical attention to the normative, political and epistemological issues involved.

Hannah's historical geography of American state formation in the nineteenth-century is a remarkable exception in this respect. Although published under the governmentality label and informed by some of its categories, Hannah's study is actually more concerned with the structuralist logics of Foucauldian discourse analysis. Analytically, Hannah's book thus is to be located between a welcome return to Foucault (on whose 'archaeological' analysis Hannah fruitfully 'elaborates', see Hannah (2000: 41f.)), and the author's own primary interest in 'the logic of social control' (Hannah 2000: 6). Hannah's close reading of Foucault's archaeological method proves particularly fruitful in avoiding some of the pitfalls of post-Foucauldian governmentality outlined above. To follow Foucault in analysing statistical discourse, Hannah claims, one must inquire into the locations at which statistics emerge, the nature of authorities empowered to speak with and through statistics, and into the substance of the statistical determinations they make. These issues lead Hannah to the investigation of actual statistical practice useful also to this thesis (see Hannah 2000: 113-159).¹⁹

¹⁹ Hannah's book provides a rich interpretation of a range of state activities during the late nineteenth century drawing on issues of gender, race, colonialism, and geography – all of which remain primarily akin to the US American context. On an analytical level, his focus on social control, however, seems less convincing, not least for the fact that it fails to recognise that Foucault's governmentality moved well beyond the analysis of discipline, control and the production of 'docile bodies' to account for the ways in which governmental thought and practice operated under 'political liberalism' in particular – arguably a suitable label for the 'governmentality' Hannah is concerned with. Hannah is aware of these tensions between historical context and analytical strategy. The fact that his attempts to rectify them are rather unconvincing (cf. Hannah 2000: 115) is probably due to the fact that he develops his arguments largely through a focus on one individual, Francis Walker (superintendent of the 1870 and 1880 censuses, important political economist and educator). It is beyond the scope of this review to examine the extent to which the metaphysics of social control in Hannah's narrative would have needed to be rectified (in whatever sense), had he incorporated archival material beyond Walker's own writings. The imaginaries, intellectual attitudes and anxieties contained therein certainly contain a 'program of governmentality', as Hannah (2000: 113) claims, but at best episodically account for the messy actualities of debating, designing and conducting censuses.

2.2.3. Beyond Foucault and the Foucauldians: Remarks on Official Statistics and Censuses

Since Foucault delivered his lectures in the late 1970s, ample historical research has shown sustained interest in the ‘where’ and the ‘how’ of the emergence of censuses and demography more broadly. Broadly speaking, censuses are a comparatively recent phenomenon, which developed unevenly internationally. For instance, the first nominal census enumeration in England was in 1841; in Belgium in 1846, in the US in 1850, in Canada in 1852, in Italy after 1860, in the German Empire 1871. Also, the reasons for these phenomena to emerge vary. Generally, it was the revolutions of the late eighteenth century which gave shape to official statistics in the form we know today. Against this background, late eighteenth-century European states generated a systematic interest in universal means of individual identification. For example, more recent scholarship on the history of official statistics in France has shown that it was the destruction of the status differences of the *ancien régime* that made it possible first for the dream and then for the practice of population to emerge (Perrot and Wolfe 1984). Cole points to the significance of the French revolution’s abolition of status differences through the establishment of the *état civil*: ‘the principle of equality of membership, once established in the *état civil* opened the way for population researchers to search for a new evaluation of every individual’s function and value to society’ (Cole 2000: 40). The technical attempts to recognise and regulate the *civil* identity of an individual can thus be interpreted as a means to assert a newly comprehensive right of surveillance *and* identification. The ‘identification of the citizen’ (Noiriel 2001) which made it possible to reliably link observable regularities to known individuals have to be distinguished from the practices of *Polizeiwissenschaft* to enlist individuals differentiated by classification and status difference. As several contributions to Caplan and Torpey’s (2001a) excellent collection show, from this flowed the nineteenth-century development of documentary practices through which every citizen was to be made visible to the state by the more indirect means of registration, passes, censuses, and the like. These systems in the context of a growing salience of nationalism as a legitimising ideology of states created their own ‘antinomies of access and denial’ (Caplan and

Torpey 2001b: 8): registration and censuses within national welfare states have to be read as at once means of control and instruments for emancipation. It was in this context, as Lee shows with regard to the German case, that, from the mid-nineteenth century only, official statisticians occupied a critical position in the construction of demographic knowledge and the formulation of governmental population policies (Lee 2009).

With regard to the twentieth century, a particular episode of which this thesis is concerned with, experiences of state and statistics have to be further qualified. Godin's book statistics of science and technology offers a first step in this direction (Godin 2005). According to him, Foucault often uses a strong notion of control referring to 'the *disciplining, policing and regulating* of individuals' (Godin 2005: 297, emphasis in original). There has been, as Godin also points out, a second way of looking at the impact of statistics on individuals, one which refers to how classifications and measurements shape individuals by suggesting new ways of '*describing* human beings, which by looping effects (feedback) affect behaviour and actions' (Godin 2005: 297 with reference to Hacking 1995; emphasis in original). More important for the present context is Godin's observation with regard to twentieth-century science and technology statistics: control here was not much of an issue in that statistics enabled governments to intervene in the social sphere, not necessarily for the purpose of control, but 'to a achieve a predetermined goal' (Godin 2005: 297). In his case at least, statistical activities were less a technology of human control than a means for rational coordination of human action.²⁰

As this chapter documents, official statistics – as other measures to create 'general equivalence' and to make uniform different areas – do not necessarily intrude in the daily reality of things and people. But statistics, as Desrosières suggests, 'do contribute, as do spatial organisations of national territory, the metric system or the national timetabling of the railways, to the manner of making an *inventory of seeing*' (Desrosières 1991a: 243; emphasis in original). Moreover, the

²⁰ Didier's work (2007; 2009) on the early twentieth-century United states agricultural and labour statistics is particularly telling in this context as he shows us how statistical operations in the context of New Deal policies gave birth to representative sampling as statistical method and technique. As he shows, economic crisis during the 1930s and concomitant attempts to come to terms with social and economic consequences across a vast territory constitute the historical background for such statistical and politico-technical operations to emerge, alter and re-inscribe in political and economic action.

powers of states to classify, codify, and identify – *pace* some Foucauldians – are inextricably linked to modes of recognition, and are, as will be shown below, the prerequisite for many individual and collective claims against the state and other authorities. As will be further discussed in Chapter 2.3, people may for various reasons have an interest in being identified (and hence ‘recognised’). ‘Registration and documentation of individual identity are essential if persons are to ‘count’ in a world increasingly distant from the face-to-face encounters characteristic of less complex societies’ (Caplan and Torpey 2001b: 6).

Thus, rather than reducing the relationship between state/government and statistics as a mere subjection of the latter under the former, and rather than taking statistical ‘facts’ (e.g. population) as an (at times naturalised) object on which power can act, a more careful suggestion is made on the level of state action and its pre-conditions: statistics, and I would reserve this characterisation for their official use only, can be considered, through graphs, tables and number series, a visualising tool, which, together with other forms of spatial organisation of state territory and temporal synchronisation of public life help to establish a particular mode of seeing the social (Rose-Redwood 2008; Hannah 2009). Further, as I show, official statistics, the variables and classificatory system that come with them since the early nineteenth century helped to facilitate public action by way of coordinating and controlling different actors. I suggest that it would be more fruitful to analyse the configuration of statistical forms and the transformation of liberal democratic states as phenomena that are mutually constitutive. In this sense, this thesis holds to an understanding of statistical practices and products as the variety of ways in which myriad forms of social relations, or, as in the present context, economic activities are subjected to attempts of standardisation and order by administrative offices which, in turn, are themselves partly informed by and made up of these statistical-administrative forms. The totalitarian experience, however, invites caution on this interpretation. Study of the Nazi regime proves how easily official statistics and its proponents could be persuaded by totalitarian power, and, more drastically, how well statistical data-gathering mechanisms (e.g. registers) lend themselves to the Nazi racial ideology and to technologies of death and destruction. Thus, the rhetorical and historical link between democratic representative rule and objective figures evoked

by mostly American scholars and statisticians alike, with regard to the present context, has to be met with some historico-geographical sensitivity.

2.3. A ‘Politics of Statistics’

A French ‘thought collective’ has been researching official statistics in other ways. Laurent Thévenot, Luc Boltanski, also Bruno Latour and, above all, Alain Desrosières – all ‘epigones’ of post-Bourdieu social theory in France (Vandenberghe 2006) – have been important in relating statistical forms to different political orders. Following a ‘politics of statistics’ (Thévenot 1990), neither state nor society is subjected to suspicious number-crunching technocrats or impersonal statistical systems. Rather, different political representations entertain different legitimate forms of statistical knowledge. These authors – in a more or less systematic manner – emphasise that statistical forms change in relation to the politico-administrative projects in which they are inscribed in, and that political and administrative actions themselves are bound to common forms of social statistical representations.²¹

Thévenot’s and Desrosières work on official social statistics is deeply rooted in a broader attempt to develop social theory within the frame of a ‘sociology of criticism’ or ‘critical capacity’ (Boltanski and Thévenot 1999) itself developed by the same collective since the 1980s (Boltanski and Chiapello 2005; Boltanski and Thévenot 2006).²² It would exceed the scope of this thesis to introduce that work more comprehensively. The following outline focuses on some conceptual and theoretical issues in the context of a ‘politics of statistics’. First, the authors emphasise that different statistical forms adhere to different discourses, that is different arguments and justification account for their legitimacy. Second, the value of coordination is put forward at the expense of the control side of statistics.

²¹ Both Desrosières and Thévenot are statisticians by training and were employed at the INSEE, the National Institute of Statistics and Economic Studies in Paris. Desrosières probably more so than Thévenot is, in Daston’s words, ‘the kind of hybrid that perhaps only the French system of education, with its emphasis on philosophy and mathematics, could have produced’ (Daston 2000: 35). He is a government statisticians as well as the author of several sociological and historical studies analysing the conceptual and political preconditions of official statistics (see especially Desrosières 1998; 2008a; b). Due to his position as both historian and trained statistician, he is remarkably well qualified to cover the camps of the practitioners and of historians and sociologists.

²² Boltanski and Thévenot’s main work was published in French in 1991 (Boltanski and Thévenot 1991) but has only recently been translated into English (Boltanski and Thévenot 2006).

Classificatory operations and their statistical treatment help to ‘stabilise’ the world by both *standardising objects* (which enables them to be measured), and providing forms for *describing the relationship* between objects thus constructed (Desrosières 1998: 61; emphasis mine). Third, a ‘politics of statistics’ is receptive to historically and geographically varying relationships between political and statistical forms.

Paul Starr’s (1987; 1992) ‘sociology of official statistics’ bears some striking similarities with the account of the French thought collective. His research raises some important general sociological questions about statistics as a social and cognitive ‘system’ (Starr 1987: 8) by drawing on various scholarly accounts of statistical institutions, statistical policy and politics, and the social history of statistics. Given that both Starr’s and the French work share a broad sociological perspective, it is surprising how little exchange there has been between the two: Starr’s work is absent from the French thought collective’s elaborations. This cannot be explained by blindness towards Anglo-American scholarship given Desrosières’ wide reception of, for instance, Hacking (Desrosières 2008e) and his treatment of both the American and British statistical system more broadly (Desrosières 1998: 147-209). Starr mostly refers to the Anglo-American context and almost exclusively draws on its scholarship. Both accounts consider statistics a social organisation consisting of state agencies, private firms, professions, international organisations and others involved in producing numbers and statistical tables. For both statistics are cognitively structured. This point refers to the structuring of information itself, including the boundaries of inquiry, presuppositions about social reality, classificatory systems, methods of measurement, and official rules for interpreting and presenting data. Both accounts paid particular attention to the role of official social classifications in modern societies. Starr’s later essay developed further the latter issue with regard to how official classifications work as at the same time a contested reduction of social complexity, and necessary preconditions for identifying membership to a social class, which, in turn, is crucial in generating social or cultural claims towards the state (Starr 1992). Desrosières and Thévenot authored a groundbreaking book on the nomenclature of the French occupational classification, which outlines the logics behind the coding and counting procedures involved in the description and classification of professional activities (Desrosières and Thévenot

1988/2002). Both characteristics of a statistical system – the social and the cognitive – have effects on politics and society. Here, both accounts share the perspective that statistical systems help to shape understanding of social and economic reality in such a way that effects can be attributed not to the phenomenon measured, but rather to the system measuring it. There are, however, also fundamental differences between the two accounts. Crucially, Starr adopts a Mertonian perspective on the sociology of knowledge to raise several kinds of sociological questions towards both the cognitive structure of statistical work and social organisation of statistical systems. By contrast, Thévenot's and Desrosières work is rooted in a broader attempt to develop social theory within the frame of a 'sociology of criticism' or 'critical capacity' (Boltanski and Thévenot 1999) developed by the same collective since the 1980s (Boltanski and Chiapello 2005; Thévenot and Boltanski 2006). Their epistemological maxim rather follows a 'pragmatic turn' broadly aiming at dissolving disciplinary language in social theory. Considering this language over-theorised, the task for Boltanski et al is rather to recommence the analysis of social action in conceptually more open terms, with regard to various forms of achieving agreement and coordination. Statistics, and quantification more generally, serve as one possible language in this respect. Starr's work is discussed at various occasions in this thesis. I examine the arguments of the French thought collective in more detail in the following section.

2.3.1. A Politics of Statistics: Statistical Forms and Political Orders in the Pragmatist Mode

A politics of statistics advocates the extension of Durkheim and Mauss' (1903/1968) programme to relate classificatory schemes to underlying social forms. Durkheim supported his suicide study (Durkheim 1897/2002) by attempting to establish sociology as a science through macro-social regularities made visible through statistical series. As Héran observed, Durkheim used statistical data without problematising their implicit content: 'De fait, la statistique entre scène dans le Suicide comme un instrument qui va de soi, sans qu'apparaisse aucune critique sur la

confection des données, ni aucune interrogation sur l'institution des catégories et, en particulier les effets de sélection qu'elles impliquent' (Héran 1984: 25). Later, with Mauss, (1903/1968), Durkheim partly remedied that omission by relating social taxonomies to social forms in 'primitive' societies, putting forward that 'les premiers classes de choses ont été des classes d'hommes dans lesquelles ces choses ont été intégrées' (Durkheim and Mauss 1903/1968: 43). Durkheim himself, however, disregarded the statistical infrastructure that had risen to power so prominently during his time, so that the relationship between social statistical and human classifications was not problematised in his work. Nevertheless, Durkheim and Mauss provided the basis against which the French thought collective would follow.

For Thévenot (1990; 1992; 1994) the relation between statistical form and political or collective constructions are at the centre of attention, precisely in that both forms are capable of establishing an 'equivalence' between human beings and political and statistical representation (see also Desrosières 1992). As Thévenot suggestively asks with regard to Durkheim and Mauss' omission: 'Mais peut-on, dans nos sociétés, se référer à des classifications d'hommes en faisant abstraction du travail de consolidation effectué par les instruments de la statistique sociale qui étayent ces classements en contribuant à leur articulation avec des objets réglementaires, informatiques, industriels?' (Thévenot 1990: 1276).

Thévenot thus departs from the more anthropological accounts that view classifications as expressions of an underlying social or symbolic structure not mediated by the state or other more general interest. For him, the history of classifications of humans and things in Western societies cannot be written without reference to the 'consolidating work' put into practice by official statistics, their classificatory system and institutional infrastructure. His analytical attention is directed towards the relationship between statistical operations, which include the manifold forms of coding the social, and political constructions of the common good or polity. As Thévenot puts it, it is about 'l'articulation majeure entre statistique et politique qui, en associant l'opération de la moyenne à une construction politique du bien commun, permet d'étayer solidement l'être social et d'établir des faits sociaux' (Thévenot 1994: 8).

Importantly for my context, this perspective rejects perceiving the relationship between statistics and politics as a subjection of the latter under the former. The state is not to be misunderstood as a supervisory authority of statistics in the attempt to ‘discipline’ society and its members. The nexus between politics and statistics suggested by Thévenot et al, rather, attempts to understand ‘la relation qu’entretient la représentation politique, et plus généralement la reconnaissance d’états de grandeur, avec la constitution de formes légitimes de connaissance’ (Thévenot 1992: 141). Thus, the development of statistical programmes, the classificatory operations involved, and even the establishment of official statistics as institutions must adhere to some kind of legitimacy, which, as Thévenot remarks, is usually derived from recognition by the democratic state. At the same time, official statistics are part and parcel of the social and cognitive constructions which make up and represent the state: ‘En outre, les opérations statistiques procèdent à des généralisations qui ont la validité de l’État; elles participent de la construction d’un tableau représentant cet État’ (Thévenot 1990: 1276).

This emphasis on legitimacy has two important consequences for the present context: First, classificatory operations and, ultimately, the fabrication of ‘social facts’ – to both of which statistics contribute – are regarded as intimately linked to the possibility of public action. The value of coordination and action that become effective through statistical operations is highlighted at the expense of control and subjection. Once people are depicted as collective, exceeding their individual characteristics visible for the locally embedded gaze only, they can be treated as a generality and hence acted upon. Their fabrication or ‘making equivalent’, as Desrosières (1992) puts it, is not merely a cognitive matter: ‘aux rapprochements permettant de constituer des classes d’équivalence, de représenter par l’un le multiple, sont attachées des actions probables, des comportements potentiels, des capacités’ (Thévenot 1990: 1276). Such complex ‘investment in form’ (Thévenot 1984) is probably present in any attempt to rationalise the social world through logical and formal categorisation.²³

²³ The notion of ‘investment in forms’ certainly alludes to the Latourian version of linking forms of cognition and realism within Actor-Network Theory. See above all Latour and Callon (1981). Thévenot exemplifies this form-giving work in F. W. Taylor’s ‘Principles of Scientific Management’, which, as a handbook, contains a particularly large repertoire of ‘form-giving instruments’ (such as machine-tools, qualification requirements and rules of conduct written on paper or cast in metal) all of which, ideally, work together to produce what Taylor

Statistical coding operations, however, lend themselves particularly well to the analysis of different ‘code forms’. As Thévenot and Desrosières (1988/2002) have shown with regard to occupational classifications, the statistical coding involved brings together legal and administrative codes used in devising questionnaires; linguistic codes which define the interview situation; occupational codes which provide, by and large, recognisable categories that can then be stated in an interview; and the technical codes convert the answers into machine language so that the answers can be fed into punch card machines or computers. Once these ‘state variables’ (Thévenot 1992: 136) such as the unemployment rate, marital status or occupational classifications are established by virtue of their generality (that is guaranteed by the level of standardisation and vast extent of usage), they ‘servent dans les mesures politiques et les règles administratives attachées à la définition de l’État ou d’institutions de taille nationale, et sont utilisées dans la négociation avec les représentants d’associations, de syndicats et de groupes professionnels’ (Thévenot 1992: 136/7). This perspective invites analysis of the relationship between statistical form and its social and cognitive context by way of distinguishing different governmental configurations across time and space, each made up of particular ways to rationalise society and economy, and to pursue different modes of action towards them and different official statistical forms.

2.3.2. The Wider Context: Issues of Evaluation and Moral Justification

The ‘politics of statistics’ (Thévenot) may be placed in the wider context of a research programme that Luc Boltanski and Laurent Thévenot, together with some other sociologists, economists and statisticians have been developing for more than two decades (Boltanski and Thévenot 2006). As Wagner summarises, this research programme ‘aims at analysing the knowledge forms of the social configurations of

calls ‘the mechanism of scientific management’ (cf. Thévenot 1984: 8f.). This common methodology – both their insistence on the situational character of action, and its symmetrical treatment of actors and objects – emerges more clearly in the preface to ‘On Justification’, where Boltanski and Thévenot make explicit their indebtedness to Callon and Latour: ‘Stimulating in its audacity, the research done by Latour and Callon deserves much credit, both for showing the relationship between the weaving of social bonds and the fabrication of objects and for building a bridge between modern social science and political philosophy’ (Boltanski and Thévenot 2006: 20). See Bénatouil (1999: 382f.) for more details on the originality of pragmatic sociology and commonalities between Latour/Callon and Boltanski/Thévenot.

twentieth-century modernity with a view to understanding the relation between the academic social sciences and those practical forms of knowledge' (Wagner 1999a: 342). The focus of their work (Boltanski and Thévenot 2006) rests on conflictive situations, which constitute collective action in the form of a specific relation between people and things. Boltanski and Thévenot reject the abstract categories of groups and social classes of much sociology, the representative individual of mainstream economics, as also case-study exemplary figures found in some historical studies. On the first page of their seminal study, Boltanski and Thévenot introduce the basic lines of what has since become known as 'sociology of critical capacity'.

Readers of this book may find it somewhat discomfiting not to encounter a familiar cast of characters: none of the groups – social classes, blue collar workers, white-collar workers, youth, women, voters, and so on – with which we have become acquainted thanks to the social sciences and the quantitative sociological data that proliferate today; none of the 'men without qualities' whom economists call 'individuals' and who serve to buttress analyses of rational choice and preferences. [...] Short on groups, individuals, and persons, our book nevertheless abounds in beings, some of them human, some of them things. [...] The relation between these person-states and thing-states [...] is the object of our study (Boltanski and Thévenot 2006: 1).

As mentioned in introduction here, it would exceed the scope of this study to introduce the authors' over-arching construction of the major forms of justified and justifiable collective action (see Wagner 1994; Wilkinson 1997: 318f. and Boltanski and Thévenot 1999 for summaries in English of the basic arguments). Suffice it to say that Boltanski and Thévenot's (2006) main argument is that these modes of justification mostly display a certain coherence, which they identify with political philosophy, as a historically condensed (since often debated and worked through in scholarly treatises) repertoire of modes of justification. The task *On Justification* set itself was to show that such modes of justification are indeed present in contemporary society and that they become particularly visible in disputes and controversies over the evaluation of a situation and over the justification of an action (Boltanski and Thévenot 2006: 65f.).

Six coherent worlds are identified: (1) inspirational (based on Augustine); (2) opinion-based (Hobbes' *Leviathan*); (3) domestic (various); (4) industrial (St. Simon); (5) the market (Adam Smith); and (6) civic (Rousseau's *Social Contract*). Six principles, common to each of these historically constituted worlds, are detected

whose simultaneous presence represents, for Wilkinson, ‘the criterion of their legitimacy’ (Wilkinson 1997: 319): (1) common humanity – the principle of non-exclusion; (2) the principle of difference; (3) the principle of dignity of equal access; (4) the existence of orders of ‘greatness’; (5) the notion of investment whereby difference is justified by the sacrifice or effort involved; (6) the notion of common welfare implying that all benefit from any increase in worth (*grandeur*) (Wilkinson 1997: 319). For example, the informational form of personal testimony can be related to the political order of domestic authority, whereas the informational form of official statistics, which rests on the measurement of frequencies on the basis of standardised variables relates to the industrial order. Following from this, Thévenot concludes that within the contemporary industrial order where domestic polity is being denounced as archaic or as overly personalised, the respective forms of non-statistical knowledge are equally discredited as personal discretion or judgement (see Peters 2001 for a similar argument).

Methodologically, the basic idea that people and things are subject to the same principles of qualification and justification requires – just as in Latour’s framework (Callon and Latour 1981; Latour 1986b) – that we deploy as few categories as possible beyond those introduced by the human beings themselves. What Wagner calls the maxim of ‘scarcity of theoretical presuppositions’ (Wagner 1994b: 272) is based on Boltanski and Thévenot’s pronounced scepticism towards classical sociological theory as well as to neoclassical economics. They turn away from the ‘social metaphysics’ of these disciplines (Boltanski and Thévenot 2006: 27). Instead, just as Latour ‘followed the actors’ (Latour 1987), ‘the researcher is obliged, in her description, to adhere as closely as possible to the procedure the actors themselves use in establishing proof in a given situation; this approach entails paying careful attention to the diversity of forms of justification’ (Boltanski and Thévenot 2006: 12).

Two further issues have to be mentioned with regard to the present context. A re-conceptualisation of the social world along these lines would have to start from the micro-sociological level, which – in the sense of a ‘sociology of critical capacity’ (Boltanski and Thévenot 1999) – takes seriously the justifications provided by individual actors for their own actions as well as their repertoires of evaluation for

the actions of others (in the course, for example, of dispute over numbers or the coherence of a certain ‘fact’). This perspective takes situated actions seriously (always in need of interpretation) in that statistical measures (state variables) are related to laymen’s judgements (Thévenot 1992). This thesis can only superficially contribute to such a micro-sociological re-conceptualisation, mainly because (analytically) the focus on official labour statistics starts from the presumption that the power of the state administration and its representation is superior to individual judgements. Statistics as historical discourse exceed the inter-subjective interpretation by human beings.²⁴ As I discuss in section 2.5 with regard to Porter’s argument of quantification as a ‘technology of distance’ (Porter 1995: ix) the focus on ‘the mundane knowledge of the social world’ (Desrosières and Thévenot 1988/2002: 50) hence bears only little purchase in the present context. Take the example of the official classificatory system. Its power precisely depends on the fact that a specific situation (economic activity, professional circumstances) was standardised over a wide space. Occupational classifications must be rooted in everyday parlance: otherwise they simply would not be sufficiently comprehensible to those non-experts (e.g. personnel managers) who were required to deploy them on behalf of labour offices. Their success, however, precisely depends on an effort of standardisation which, combined with the authority of the labour office, was able to transgress local specificities (in comprehension or lexical usage) to a sufficient level.²⁵

The second remark crucially refers to the problem of historical contingency of the six worlds and their legitimate principles. This problem, I suggest, plays out on two inter-related levels. From a historian’s point of view, the question arises as to what extent the six orders of justification are actually historically significant. A geographical perspective, of course, needs to ask whether or not these orders of

²⁴ The role of critique i.e., the ways in which statistical objects and classificatory elements were appropriated or not by laymen or non-experts will thus play a minor role in this thesis. Chapters 4.7. and 9.4. look at the problems of how to develop occupational classifications in ways that renders them sufficiently comprehensible for the non-expert (employers mostly) without sacrificing a necessary level of complexity that allows to account for the myriad forms of human economic activity. Chapter 5.3 attends to the relationship between statistical expert discourse and the public in post-1945 West Germany.

²⁵ The fact that Boltanski and Thévenot’s work resonates with ethnographic research on the ‘values of quantification’ (Lave 1986) underscores that a focus of classificatory practices and laymen’s judgement is inappropriate in the present context. Lave investigates the standardised forms of quantitative knowledge as resources employed in everyday practice. Lave argues from the behaviour of shoppers in grocery stores that quantification is not abstract, universal, and rationalistic, but implicit and situationally-specific.

justification are particularly ‘French’ or whether they hold analytical purchase in different national settings. They were constructed from disparate philosophical writings across centuries of European history and the results of those considerations, as Wagner aptly summarises, were then ‘transposed into contemporary disputes over matters quite alien to those philosophers’ (Wagner 1999: 351-352). The establishment of the six orders can thus easily be dismissed – allusions to history notwithstanding – as a particular *lack* of historical perspective. While *On Justification* points to the possibility of an elaboration in terms of a historically more dynamic, shifting perspective on the orders of justification, this had remained undeveloped (Boltanski and Thévenot 2006: 347-358). Thévenot already alluded to a less formalised analysis of different knowledge forms involved in the construction of legitimate political forms: With regard to the example alluded to he concludes that ‘[i]l suffit [...] d’être attentive à des situations qui ne s’ordonnent pas autour d’un jugement d’ordre industriel sur ce qui importe, pour voir à l’oeuvre d’autres formes de connaissance qui sont également propices à des généralisations et à un cumul. La compréhension de la spécificité de l’information statistique et de ses limites suppose d’appréhender ces différentes formes et leurs rapports critiques’ (Thévenot 1992: 142). Despite the fact that other forms are, in Thévenot’s words, conducive to generalisations, he seems to recognise the possibility of difference beyond the six orders identified.²⁶

In this study, Boltanski and Thévenot’s framework is deployed in a general manner in the analysis of mutual relations between statistical and political forms. Chapter 6 in particular deploys the nexus suggested by Boltanski and Thévenot, and also by Desrosières, between political representations and legitimate statistical knowledge. The present study does not pay particularly close attention to the six orders identified by the authors. The political constructions excavated in Chapter 6 (*Daseinsvorsorge*, employment policy and economic freedom within German economic democracy more broadly) rather represent a set of political generalities

²⁶ It is important to note that not least in response to such criticism, Boltanski and Chiapello have embarked on an analysis of the historical development of orders of justification, in a comparison over time (Boltanski and Chiapello 2005). This book deploys the analytical framework presented in *On Justification*, but is more concerned with overall shifts in the uses of forms of justification in the areas of work and management between 1965 and 1995: As the authors put it: ‘rather than describing critical operations in limited situations on a case-by-case basis, our objective was to highlight the role played by critique in the dynamic of capitalism, and to construct a model of normative change’ (Boltanski and Chiapello 2005: xii-xiii). The role of critique for social change has been further elaborated by Boltanski (2009).

less formalised and with closer interrelations with each other. Nevertheless, the main lesson drawn from Boltanski and Thévenot's, and Desrosières' perspective remains vital to this study: statistical reasoning and measurement is to be considered just as contested and tumultuous as any other history. Statistical reasoning and techniques are part and parcel of other, intersecting attempts to think the economy and the social world via 'theory', and to act upon it via distinct forms of state intervention (Desrosières 2003a/2008). Following a 'politics of statistics', an introduction of a new statistical system of employment, for instance, cannot be overlooked or mentioned in passing – as has been done by some scholars – as a self-evident technical necessity. Nor can statistical data taken from these official statistics be used without information concerning their underlying coding procedures.

Drawing upon these notions, the following section looks at quantification as a sociological concept; at the materiality of statistical practice; the relationship between statistical reasoning and social debate; at statistical machines as both a form of objectification of knowledge production and an historical invention; and at the meanings of objectivity as a scientific concept.

2.4. Truth and Accuracy in Statistics: Trust, Discipline and Power

The 'double nature' of statistics – as an instrument of government and of scientific evidence – has been addressed in several ways. With regard to the state-administrative side of statistics, Becker's research on technology within state administration constitutes another research perspective that informs this thesis (Becker and Clark 2001; Becker and von Krosigk 2008; Becker 2011). The analysis of technological use within offices and administration is situated within the scholarly project of a cultural history of administration (Becker 2003). This perspective, following Latour, focuses on the different communicative forms of administration as the main institutional and symbolic foundation of the modern state and serves well in the present context to further scrutinise the administration of labour. Becker (2011) looks at internal and external administrative communication i.e., formal decrees, official petitions, as well as the speech-based interchanges with politicians and

interest groups as the main stakeholders or consumers of administrative action. Administrative discourses, in this perspective, are not only shaped and enabled by language, but also by practices, such as body language and the spatial organisations of offices, and most importantly, by ‘material powers’ (Bennett and Joyce 2010). For a cultural analysis of state power, the discursive and normative structures of administrative forms are as important as their formation through technology and media. Both are, in fact, mutually constitutive: Discourses and political programmes help to structure the administrative language, their spaces and institutional make-up; architecture, writing machines and registration technologies shape and are shaped by just these discourses and programmes.

The first section looks at the historical ubiquity of numbers and numerical facts and introduces quantification as a sociological concept following Desrosières’ ‘historical sociology of quantification’ (Desrosières 2008a). Quantification as social activity, as is shown, comprises forms of agreement and measurement. The second section briefly accounts for the materiality of statistical practice as an important precondition of measurement. The administrative file card will be introduced as an important matter further scrutinised in Chapters 4 and 6. The third section turns to Desrosières again and outlines four different discursive forms social actors can adopt with regard to statistical reasoning. Whereas statistics as science is concerned with description and knowledge, politics follows the logic of prescription and action, using or denouncing statistical products. Both discursive forms can be further differentiated by their attitude in relation to the question of how ‘real’ statistics are (Desrosières 2001). The purpose of this section is to highlight the French thought collective’s stance towards statistics as both real and conventional.

The final section scrutinises the objecti-fication of statistical knowledge through machines (and the file cards) from an analytical point of view by looking at the various meanings of objectivity as a scientific concept. Following Daston and Gallison (1992; 2007), Megill (1994) and Porter (1991; 1994; 1995), disciplinary and procedural/mechanical objectivity will be highlighted. Both forms emerged in the mid-nineteenth century and had various effects on statistical discourse. Arguably, the most important was the introduction of significance tests as ‘objective’ evaluation of measurements. These tests, following Hacking can be interpreted as particular

‘technologies of intersubjectivity’ (Hacking 1992). Procedural objectivity, by contrast, is less concerned with scientific accuracy than with official standards which were intrinsically linked to the issues of science and government. With regard to official (labour) statistics, this sense of objectivity helps us analyse the concern for standardised measures in the administrative office. In this respect, the machine comes closest to the statisticians’ claim for a judgement-free representation of employment precisely because it was ‘incapable of subjectivity’ (Porter 1995: 74).

2.4.1. Quantification: Coding and Counting

Historians have shown how ideas of objectivity and factual accuracy, as well as views on numbering and quantification emerged as part of an experimental, rudimentary methodology from the late seventeenth century (e.g. Frängsmyr, Heilbron et al. 1990; Poovey 1998). The prevalence of numbers and figure-producing institutions became more prevalent in the twentieth century, where modelling, mathematisation and measurement have been identified as the main factors in the development of economic theory (Porter 2001; Morgan 2003) or even societal development more broadly. Since the early twentieth century, the emerging ‘global field of official statistics’ (Ventresca 2002) has turned its attention to the development and standardisation of official statistics themselves (see Ward 2004 for the UN).

Alongside the ubiquity of quantification in social and economic life, there is also an analytical case for Desrosières to entitle his essay collection ‘for a historical sociology of *quantification*’ (Desrosières 2008a; emphasis mine): Quantification, for Desrosières, encompasses a broader set of thoughts and practices than the term statistics could describe. Essentially, quantification refers to two analytically different albeit interrelated ideas: agreement (*convenir*) and measuring (Desrosières 2008c: 10-12). Thus, analytically any measurement which can be described as the *counting* of ‘things’ or facts as already ‘existing’ in a measurable form, presupposes a process of *coding*: a series of conventions which help to establish ‘equivalences’ between things or between things and humans. These forms of coding often go

unmentioned. As will be shown below, the idea of measuring seems to suggest that counting was possible without these previous activities described by sociologists as conventions of quantification. Such coding procedures have to be considered as actual social practices (as implied in the active form of the verb quantifying (making into numbers)), involving comparisons, negotiations, compromises, translations, inscriptions, and calculations. In the course of this study, I could only superficially delve into the minutiae of classifying and standardising as suggested by a methodology for the analysis of classifications (Starr 1992; Bowker and Star 1999).

The actual techniques of coding – which involve both the establishment of classificatory systems (e.g. occupational classifications), and the assignment of objects or individual cases to such a system (Starr 1992: 269; Bowker and Star 1999: 44) – is as important as it requires looking at what labour administrators and mid-rank statistical technicians were actually doing as opposed to what they said or wrote they were doing (Latour 1993). The actual assignment of objects and individual cases – often treated as a mechanical task handed down to lesser skilled employees in statistical or labour offices (often women in my case) – is fascinating in that these processes decided what was going to be visible or invisible within the classification. As Desrosières summarises, ‘the way in which statisticians have perceived and identified objects, describing and treating them in categories, assembling and distributing them in tables, not to mention the misunderstandings and criticisms they have met with – all this informs us about the transformations in society, in a way that is quite different from that of long series based on theoretically stable procedures, indexes of prices, production or external trade’ (Desrosières 1998: 249). As Desrosières suggests, coding is the juncture at which the critical work of abstraction that potentially distances (but also anchors) statistical entities (e.g. classes of manpower, occupational categories) from (to) the social world must be both done, and defended in relation to its transformation. What will be shown in the course of this thesis, however, is the embeddedness of statistical counting in a myriad of administrative coding activities – a historical fact that is particularly visible in labour statistics as a by-product of administrative practices (see Chapter 2.6 and Chapter 4). Further, the dialectic between the richness and manifoldness of economic activities

and the attempt of standardisation by public offices is revealed in several chapters of this thesis.

2.4.2. The Materiality of Statistical Practice

Latour's work is commonly cited in order to account for the materiality of the social world and the non-human entities it is made up of (see Joyce and Bennet 2010 for a summary). The notion of network is particularly compelling because it describes a broader list of entities than the more conventional models of action and practice. The focus on non-human entities is particularly fruitful for the present context since it not only broadens the focus of social historical studies of the state administration by including objects and things, such as maps, files, and, to some extent, also machines (e.g. Latour 2005). Latour's perspective also tells us how such materiality might be effective in the social world and encourages us to ask about the pre-conditions of measurement procedures and scientific claims (Latour 1986a).²⁷ In his account, the validity of statistical claims or 'epistemic certainty' (Wagner 2001) is dependent on the development of writing and imaging techniques that stabilise scientific knowledge into various kinds of 'marks' that circulate as 'immutable mobiles' (Latour 1986a: 7f.). For Latour, 'the sure path to science' (Latour 1986a: 15) is in the construction of well-kept files in institutions that want to 'mobilise' a larger number of resources on a larger scale. The materialisation of knowledge on punch or file cards thus serves as a powerful pre-condition to make others believe the marks of science, and so act upon them.²⁸ Latourian 'mobilisation' and its dependency upon (materialised) presentability, readability and combinability as the main characteristics help to explain how administrators came to understand and believe the validity of their statistical work. His perspective also reveals how precarious

²⁷ Bowker and Star also point out that classifications and standards are symbolic as well as material. For them, '[a]ll classification and standardization schemes are a mixture of physical entities, such as paper forms, plugs, or software instructions encoded in silicon, and conventional arrangements such as speed and rhythm, dimension, and how specifications are implemented' (Bowker and Starr 1999: 39).

²⁸ One of Latour's examples in this context is the French statistical office INSEE, within which the economy is made visible through various 'markings' in questionnaires, answers punched onto cards, and, finally, inside piles of charts and lists: The marks of the economy are gathered and combined with each other in the set of national income accounts, from which the gross national product figures are extracted (Latour 1986a).

statistical entities actually are and how much administrative and scientific labour usually had to be invested in them in order to make them stable and trustworthy.²⁹

Latour's concern for the development of standards and their circulation around the world has been criticised for several reasons. Two points deserve further scrutiny in the present context: the relationship between things and human action and, in a more general sense, the choice of language for the analysis of scientific facts and their truthfulness.

There has been considerable debate as to how to conceive such thing-agency. Suffice it for the present context to emphasise with Joyce and Bennett (2010) that the agency of things here is not understood as autonomous in relation to human practices and the relations between human agents. Nor is it a matter of attributing intentionality to the elements of the material world. It is rather, in Joyce and Bennett's more relational perspective, 'a matter of taking account of the distinctive kinds of effectivity that material objects and processes exert as a consequence of the positions they occupy within specifically configured networks of relations that always include human and non-human actors' (Joyce and Bennett 2010: 5). The significance of things in this perspective remains embedded in human action, as much as it analytically accounts for the practical requirements of its (the human's) engagement with the material environment. Such perspective resonates with research in organisations. Orlikowski (2000), for instance, turns against the notion that new technologies 'embody' structures, which are then merely actualised by human action. Rather, interactions between new technologies and users with their competences, routines and self-understanding are crucial in her view:

'Whilst a technology can be seen to embody particular symbol and material properties, it does not embody structures because those are only instantiated in practice. When humans interact regularly with a technology, they engage with (some or all of) the material and symbol properties of the technology [...] Seen through a practice lens, technology structures are emergent, not embodied' (Orlikowski 2000: 406f.).

Second, Latour's account was criticised for providing at best a 'descriptive' (Shapin 1995: 307; 309) vocabulary for analysing how the spread of knowledge is

²⁹ Latour and Latourians certainly have been using this perspective more frequently to study the making and interpretation of sciences, especially to point to a certain bureaucratisation of laboratory sciences. Latour himself, however, suggested to study the networks of administration, management and bureaucracy, of science, politics and economics 'with the *same* method' (Latour 1987: 255; emphasis in original).

actually made effective. As Jasanoff observes, ‘Latour’s networks exercise power while displaying curiously little of the moral and political conflicts that normally accompany the creation and maintenance of systems of governance’ (Jasanoff 2004c: 23). Latour has little to say, for instance, about what role beliefs, values and ideologies – all indispensable ingredients for a political world made up of antagonistic worldviews and competing moral justifications – play in sustaining some representations of the social world and the expense of others. The notion of networks, as Thévenot remarks, tends ‘to overlook the heterogeneity of links for the benefit of a unified picture of interconnected entities’ (Thévenot 2001: 408). For example, ‘centres of calculation’ depend on the prior construction of ‘forms of equivalence’ (see section 2.3) between things, human activities and the social space these are embedded in. Such forms, as Thévenot emphasises, do not fit the kind of calculus, which follows a Latourian ‘rational optimization’ (Thévenot 2001: 408), but are essentially plural and dependent upon cognition *and* normative evaluation (see section 2.2 above). Latour and his associates run the risk to substitute for the category to be analysed (‘science’) a term like ‘network’, whose functioning and internal structure also resists sociological and normative analysis (cf. Jasanoff 2004c: 44). The focus on ‘opening the black boxes’ (cf. Winner 1993 for an early critic) by dissecting the various practices of enrolling, controlling and empowering prove too ahistorical and formalist, and too concerned with the fluidity of meaning to offer a historical analysis the analytical resources it needs for understanding social change or the social more broadly.

In the light of such criticism, this thesis benefits from a Latourian framework where the analysis of the materiality of statistical knowledge is concerned. Latour’s framework proves further useful in analysing the ways in which myriad forms of mundane knowledge on individual economic activities became ‘factual’ (see especially Chapter 4). Next to Latour’s framework and the language of ‘domination, drilling and disciplining’ (Shapin 1998: 7) that comes with it, however, this thesis looks at the role of moral justifications and the values of coordination which necessarily underlay scientific and political debate. As I show below, more recent science studies work on *trust* usefully complement a Latourian perspective in order to explain how statistical knowledge became effective and trustworthy. Further, this

thesis focuses on some more routine and pervasive means for transferring knowledge from person to person and from place to place such as organisational properties (legal constraints, administrative requirements), and professional backgrounds of leading personnel.

2.4.3. Statistical Reasoning and Social Debate: Science vs. Politics

Desrosières research utilises a combination of internal and external perspectives on statistics. He has no intention to do away with statistics, but rather, wants to understand the ‘paradox’ of objects that are simultaneously real and conventional (Desrosières 1998: 1). In that sense, he places himself amidst the cognitive and political tensions clearly recognising the virtue of ‘indisputable facts’ (Desrosières 1998: 325) for a common space of negotiation. At some points, he goes as far as putting the public sphere in one category with the existence of statistical information accessible to everyone: ‘The construction of a statistical system cannot be separated from the construction of equivalent spaces that guarantee the consistency and permanence, both political and cognitive, of those objects intended to provide a reference for debates’ (Desrosières 1998: 324). For instance, with regard to France, Desrosières considers the place of statistical information in the public sphere during the period 1950–1975. He realises that this language then assumed an ‘original consistency, itself linked to the consistency of a form of regulation of social relationships’ (Desrosières 1998: 333). From this point of view, he concludes, an effort was made to unify the economic and social debate around a common language – the ‘language of planning and Keynesian macroeconomics, of growth and national accounts, of the sociology of inequalities and its statistical indicators’. Essentially, so Desrosières, the ensemble of actors, procedures and the words to express them was relatively coherent, mainly due to the terminology and tools of a statistical system erected precisely during this time.³⁰

³⁰ These insights owe much of their analytical purchase to the exception of the French case, as Desrosières is aware. He acknowledges that ‘this dissemination and widespread acceptance [of national accounts, analytical categories of official statistics, econometric models and the like, JM] were more marked in France than in other countries, being situated within an older tradition that placed great importance on the state engineers, trustees of a science applied on managing a strong, long-centralized state’ (Desrosières 1998: 334).

Epistemologically, Desrosières looks for a perspective that cuts through the opposing and complementary positions of ‘realism’ and ‘relativism’ putting an end to the (endlessly oscillating) condition by which both respectively conceptualise and use statistical information: either as an undebatable reference situated above any debate, or as a target of polemical denunciations destroying, as Desrosières puts it dear, ‘the complex pyramids of equivalences’ (Desrosières 1998: 325). He schematically differentiates four different attitudes in relation to the statistical argument (Desrosières 1998: 335-337):³¹

Table 2.1. How to Dispute the Undisputable? Attitudes towards Statistical Reasoning in Social Debates

		Discursive Forms (and Institutional Spaces)	
		Description and Knowledge: Science (<i>there is</i>)	Prescription and Action: Politics (<i>we must</i>)
Attitude in relation to the question of reality (Epistemology)	Realist	<ul style="list-style-type: none"> • Postulates there are objective things, existing independently of observers and made up of regularities and stable relationships between them. • Statistical discourse tends towards this position; statistics aim at ‘approaching reality’, it sets itself problems of ‘reliability of measurement’. 	<ul style="list-style-type: none"> • Political and administrative language of action and social debate either uses or denounces statistics. • Is distinguished from realist scientific discourse by its normativeness, but takes up the real objects described and analysed in scientific language and makes the action bear upon them. • As Desrosières (1998: 336, emphasis in original) sums up: ‘We <i>must</i> have things that hold up well, independently of particular interests, in order to be able to act on them. These things are categories of action: poverty, unemployment, inflation, the trade deficit [...]’.
	Relativist	<ul style="list-style-type: none"> • Uses the realist version as a reference point, whilst – remaining in the language of science – postulating the possibility ‘to reconstruct a genesis, and the social practices that have led to a solid statistical object’ (Desrosières 1998: 336). • Language is that of social history, or of constructivist sociology of knowledge. • Probably developed first by Durkheim and Mauss (1903/1963) in <i>Some Primitive Forms of Classification</i> where they relate classification schemes 	Can have several modalities: <ul style="list-style-type: none"> • Polemical and accusatory (‘We must open the black boxes to show what they conceal’) • Ideological (‘Statistical production results from power relationships’) • Especially the second modality is ‘unstable’ in the sense of Desrosières, because it deploys a ‘language of denunciation’ (ibid.: 336/7), and, at the same, time, implicitly refers to a potential positivity,

³¹ Also here the French thought collective informed the intellectual output: Desrosières’ developed these positions in the course of discussions with Luc Boltanski and Nicolas Dodier (cf. ibid.: 342).

		and 'primitive' society. <ul style="list-style-type: none"> • Postulates that there are 'historical and social processes of constructing and solidifying equivalences and mental schemes. It is up to science to reconstitute them, by describing how social facts become things, through customs, law, or social struggle' (Desrosières 1998: 336). 	either scientific or political. <ul style="list-style-type: none"> • Desrosières prefers to locate his (and Boltanski and Thévenot's) language in this field.
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In Desrosières' language, in the first instance the 'equivalences' between the cases is presumed to exist prior to the chain of events; the second case regards those connections as conventional and constructed. Combined with the other opposition – which distinguishes the languages of science and of politics – Desrosières' remarks contribute to making visible these four different attitudes with regard to statistical reasoning. These four positions are analytical abstractions from an empirically hybrid mixture of much more complex forms of argumentation and justification. Desrosières' own position in this tableau, surprisingly, it is to be found within the 'language of action' field:

'A further modality of the use of statistics in the language of action can be considered. This is based on the idea that *conventions* defining objects *really* do give rise to *realities*, in as much as these objects resist tests and other efforts to undo them. This *principle of reality* affords an exit from the dead-ended epistemological oppositions between these two complementary and complicitous enemies, the realist and the relativist' (Desrosières 1998: 337, italics mine).

Desrosières here defends a third space of comprehending the use of statistics in the language of politics and science. Its vectors are made up of a relativist position, which, on the ontological level, however, is not supposed to lead to the deconstruction of 'things', but, rather, to an acknowledgment of their reality. Things are 'real' as long as the political, social and techno-scientific costs of undoing them (through public and scientific debates, and political struggle) are higher than the 'investments' (Thévenot) necessary to keep them as they are. This position – in which Latour's, Boltanski and Thévenot's ideas agree – does 'not deny the reality of things once numerous persons refer to them to guide and coordinate their actions' (Desrosières 1998: 337). Statistics, then, is by virtue of its objects, nomenclatures, graphs, and models 'a conventional language of reference' which allows a public sphere to develop, and a political system to bargain and justify its goals. Its

‘vocabulary’ and public uses, however, can themselves be debated – to the extent that the conventions of equivalence and permanence of the objects on which statistical practice are based become weak and reversible.

It is helpful to interpret – as has Schweber (1996: 118f.) – Desrosières’ (and the French thought collective’s) syncretistic position with reference to his own position as statistician and historian of statistical reasoning. Indeed, in the introduction to his study, Desrosières (1998) speaks as the practitioner, indicating that not only is the public concerned with the question of ‘how to dispute the indisputable’, but also statisticians themselves. Desrosières here rather expresses apprehension in the face of political threats weighing on the statistical authority. At one point, he calls for ‘a scale of the levels of ‘debatability’ of the objects’ (Desrosières 1998: 325), which could be understood as a normative framework which allows for the evaluation of whether or not the ‘black boxes’ of measurement of statistical objects should be opened or not. His book aims at resolving the dilemma in which statisticians find themselves once they recognise the constructed character of statistical objects. As Desrosières explains: ‘[t]he question of the consistency and objectivity of statistical measurement is often raised. The perspective I propose is intended to avoid the recurrent dilemmas encountered by the people preparing the figures, if they wish to answer it fully’ (Desrosières 1998: 12).

2.5. Objectification and Objectivity as a Scientific Concept

The role of machine-based statistical production may be investigated with regard to the model of scientific objectivity implied.³² Here, my concern is less with the form of bureaucratic domination understood as de-personalisation which ‘the machine’ helped to establish between office and client, than with objectivity as a scientific concept. The two forms – the machine as an *objectification* of knowledge production and the ideal of *objectivity* within official statistics – are intertwined. As Porter notes, the etymology of the word ‘objectivity’ suggests an acquaintance with objects (Porter 1995: 3), of which machines are probably only the most evident example.

³² See chapter 3.6 for an historical account of machine-based statistical production in twentieth-century Germany.

There is, however, more to ‘objectivity’ than its alleged association with the administrative machine. Following Megill (1994), objectivity has four distinct senses, two of which are particularly pertinent for the present context (see also Daston and Galison 2007).

‘Disciplinary objectivity’ is tied up with the dynamics of the modern academic enterprise, which is sub-divided by discipline, field or school and by competing claims to authority. Here, objectivity claims depend upon the criteria these intellectual environments set up and consider authoritative with regard to the knowledge they produce, or the field which academics or applied researchers consider themselves experts about. Since the groundings of what is objective knowledge vary from discipline to discipline and from field to field, disputes over the criteria of what is objective are likely expressed in ‘boundary disputes’ during which scientists are forced to attribute certain characteristics to their methods, practices, forms of knowledge, work organisation or themselves as disinterested observer or registrar – as, for instance, official statisticians – by which they then seek to distinguish themselves from other such qualities (Gieryn 2001). As Porter notes, ‘disciplinary objectivity is made conspicuous mainly by its absence’ (Porter 1995: 4): Only if ‘outsiders’ challenge scientists do the latter usually have to justify their conclusions or re-assess their own methods. As products of ‘epistemological insecurity’ (Megill 1994: 6), disciplinary objectivity-claims are likely to arise when the faith in one particular set of criteria for objectivity seems unsustainable from the perspective of another, or when there are doubts about ‘the reliability of personal vision’ (Megill 1994: 6).

As Swijtink has shown, the development toward ‘observation without an observing subject’ during the nineteenth century enabled the introduction and use of formal, standardised numerical methods such as Least Square or significance tests into statistics. These methods have themselves had an objectifying effect by reducing the subjective judgement of the observer, his or her inconsistent observations, to a best value (taken to be objective criteria), around which a range of probable errors was then estimated (Swijtink 1987). In this sense, the expansion of mathematical statistics (analysis of variance, regression, factor analysis) in many of the sciences since the late nineteenth century illustrates the same impulse. These statistical

methods have become standard tools in economics (McCloskey 1998) and elsewhere for ‘measuring’ elements and for assessing ‘objectively’ the significance of the experiments and their results (Gigerenzer, Swijtink et al. 1989). Historians of statistical reasoning have further shown that significance tests developed from methodological ideas imported from the natural sciences (astronomy) to study human characteristics in the early nineteenth century (Atkins and Jarrett 1979; Desrosières 1998: 45-102). The law of error, which came to be known as the Normal distribution – one of the most commonly assumed distributions in tests of significance – was originally developed by astronomers so they would know more precisely how to interpret other observers’ measurements. It was demonstrated

‘that the probability of any observation differing from the ‘true value’ by a specified amount could be calculated using the Normal model; this was justified by assuming that the overall error is composed of a number of ‘elemental’ errors – small and random mistakes which accumulate to give an overall error which is *probably* small (i.e. close to zero), but which *may* be large’ (Atkins and Jarret 1979: 90, emphasis in original).

Objectivity, as Atkins and Jarret observe, is built into the procedure ‘by deciding *in advance* of calculation the particular samples’ test statistics, what range of extreme values will constitute grounds for rejecting the null hypothesis’ (Atkins and Jarrett 1979: 94).

Hacking (1992) added a further dimension to these measures of statistical objectification. With the expulsion of the subject from scientific practice in the course of the various ways of constructing objectivity, these measures can be seen as being intended to bring about agreement among scholars, scientists, or even citizens. Thus, the various procedures of statistical objectification all have in common that they link the construction of objectivity to that of ‘technologies of intersubjectivity’ (Hacking 1992: 152): As Hacking suggests with regard to significance tests, their role is not primarily to say something about the truth or accuracy of the test but to ‘indicate that a general protocol has been used, and provide a method for qualitative interpoll comparisons’ (Hacking 1992: 152). These strategies to objectify data are, in the words of Desrosières, ‘formulas of agreement’ (Desrosières 1998: 66). As will be shown in Chapter 5.3, the definition of what are correct procedures of publishing estimates of errors in statistical results can be considered a disciplinary exercise, a

matter of conventions arrived at within a particular school of mathematical statisticians, but nor shared by official statisticians.

‘Procedural objectivity’ or, in the words of Daston and Galison (1992; 2007) ‘mechanical objectivity’, is characterised rather by what it omits than by any positive characteristics of its own. Its motto, according to Megill (1994: 10), might well be ‘not touched by human hands’. The omission in question is the interested and located individual, social group or institution. It is probably again Porter (1991; 1994; 1995) who has best shown that, historically, the advance of impersonality in scientific and administrative practice went along with, and promoted the progress of standardisation. It is precisely where the wider public or ‘the social’ is concerned that mechanical objectivity comes into play as standardisation of practices, measurements, categories and the like.

Porter’s terminology seems to reserve standardisation for the realm of modern public bureaus and state agencies rather than for scientific research and its organisation. Huge collaborative efforts between science and the state in the definition of the metric system, the control of air, water or pollution, or in setting electrical standards required the establishment of ‘centres of calculation’ (Latour 1987) or ‘modern public bureaus of standard’ (Porter 1995: 27). It was their job to provide officials at different government levels with specifications and tolerances for all kinds of measures. Most importantly, for these purposes, there was a strong incentive, as Porter notes, ‘to prefer precise and standardizable measures to highly accurate ones. For most purposes accuracy is meaningless if the same operations and measurements cannot be performed at other sites. This is especially true, and especially urgent, where the results of research are to be put to work outside the scientific community’ (Porter 1995: 29). Porter’s remarks are useful for the present context in that he reserves issues of accurate and true measures of things for scientific communities. Standardisation, by contrast, is intrinsically linked to issues around science and government, where the more practical and pressing problem often is to assure that everyone is measuring and reporting the things the same way. This, in turn, as a matter of adequate measurement, requires ‘disciplining people as well as standardizing instruments and processes’ (Porter 1995: 28).

Here his research takes up a thread laid by Daston and Galison (1992) who have shown that procedural objectivity only emerged in the mid nineteenth century. Most importantly for the present context, the machine was fundamental to the very idea of mechanical objectivity, and this in various aspects: First, the machine (camera, punched card machine, electronic data processing etc.) is in itself a powerful symbol of standardisation due to its capacity ‘to turn out thousands of identical objects’ (Daston and Galison 1992: 119). Secondly, with regard to the subject, the machine embodied a positive ideal of the observer or administrative worker. Indeed, ‘mechanical objectivity’ also held certain moral virtues for the human being. Chief among these virtues were those associated with work: In comparison to the machine – ‘patient, indefatigable, ever alert, probing beyond the limits of human senses’ (Daston and Galison 1992: 119) – the human workers ‘whose attention wandered, whose pace slackened, whose hand trembled’ (Daston and Galison 1992: 83), were slow and imprecise. Mechanised quantification for public and scientific purposes probably came closest to the ‘spirit of rigor’ enshrined in the ideal of objectivity (Porter 1995: 74): Where its methods were mechanical, its morality, thirdly, was that of ‘restraint and prohibition’ (Daston and Galison 1992: 84). The machine embodied the promise of scientific or administrative products uncontaminated by interpretation or personal judgement. Whether actually achieved or not, the machine enabled scientists and administrators better than anything else to claim such judgement-free representation. Here the constitutive and symbolic functions of the machine blurred since often the pure representation (or ideal administrative procedure) was often little more than the expression of hope: the machine ‘seemed at once a means to, and symbol of, mechanical objectivity’ (Daston and Galison 1992: 120). In any case, the interplay between objectivity and machine overlapped with, and at the same time exceeded other meanings of objectivity. For example, where procedural objectivity commanded the definition of ‘correct’ procedures – how to file the employment files – mechanically produced official employment figures held their own promise of a judgement-free (and efficient) representation of work. For administrative practice, the calculating machine was probably the optimum of rational and hence objective action precisely through its combination of mechanised counting and the virtues of the machine. ‘The ideal

calculator is a computer', Porter writes, 'widely revered in part because it is incapable of subjectivity' (Porter 1995: 74).

These discourses of objectivity have strong moral and political connotations. This is especially true for official statistics as a boundary object between sciences, the state and the public (see section 3.5). The ideal of objectivity is a political as well as a scientific one: it means the rule of law, not of people as much as it implies the subordination of personal interests and prejudices to public standards, as particularly exemplified by official statisticians. If objectivity in all its meanings had moral connotations, this was mainly because subjectivities were thought amenable to control through self-restraint or other forms of rule-bound behaviour.

Feminist scholarship has widely demonstrated that the adoption of such an 'ethic of personal renunciation' (Porter 1995: 85) on the part of those who gather data or make policy decisions, follows gender biases on various levels. Objectivity, in this respect, emerges as an ideal with a long history of identification with masculine values (Fox Keller 1983). More precisely, abstract notions such as objectivity or value-neutrality themselves reflect historically specific – and potentially androcentric – social images of self, other, and community. In this sense, statistical practice can be considered part and parcel of a scientific enterprise potentially structured by gender symbolism, a gender division of labour, and by individual gender identities (see short discussion in chapter 3.6.). Further, as Harding (1986) powerfully argued, the fabrication of factual knowledge itself, its methodologies and epistemologies are fundamentally imbued with values and practices which are divisive not only by gender but also by race and by class.³³

³³ Hannah (2000: 84-106) has shown how the 'subjectivity' of Francis Walker, director of the 1870 and 1880 US censuses and a prominent political economist and educator, was structured by a masculine ideal of self-sufficiency in pursuit of which he, as many other (white) American men encountered a more general 'crisis of manhood' at the time. Although unsuitable for the present context in terms of empirical focus and time period, Hannah's elaborations show that official statistical professionalism was no exception to the more general issue of androcentric scientific concepts and practice in the Western world. The link between Civil War, manhood, and science in which Walker was immersed and out of which he attempted to forge a figure of manhood suitable for his visions of social order were, of course, specific to the US American context of the time. Moreover, as Hannah also demonstrates, this 'military manhood ideal' (Hannah 2000: 96) already then experienced transformation with the emergence of academic social sciences based on the (masculine) impartial 'expert scientist'. In the course of this thesis, I was unable to deal with issues of gender in any systematic way. The underrepresentation of women in leading positions within statistical offices, however, will be shortly discussed in chapter 3.6. Issues of androcentric representations and practices would need further elaboration, especially with regard to such crucial moments in the history of statistics as the suppression of the author attribution from the mid-nineteenth century (Chapter 3.5.3), or the emphasis on personal integrity of major figures as a guarantee of neutrality repeatedly found in the archival material (e.g. Chapter 3.8.2).

Paradoxically, adopting the ‘ethic of renunciation’, does not imply that a government statistician lacked the rich local knowledge or experience exalted by some critics of quantification or technocracy more broadly. The ideal of impersonality does not necessarily imply statements about truth, reality or nature. It must not, as Porter warns, be conflated with ‘objectivity as truth’ (Porter 1995: 74). For Porter, and this is very suggestive for the present context, objectivity – disciplinary or procedural – implies nothing about truth or nature. It is rather a subject position, one might say in discourse analytical terms, through which actors were put in a position to act as if they were ‘outsiders’, which, in turn, enabled them to struggle – especially in confrontation with the public – against subjectivity or to exclude judgement.

As I will show in Chapter 5.3, first generation labour administrators were aware that meanings were going to be lost in the course of their statistical operations. The problem for them was not epistemological, that is whether or not there were empirical particularities lost through statistical representation. That this would be the case was always recognised. The issue was, rather, how best to reconfigure (and sometimes ignore) much of what was difficult or obscure to measure (points discussed in relation to occupational classifications in Chapters 4.7 and 9.4). The relationship of German statisticians to empirical evidence differed according to professional background and changed in the course of the time period considered here. Social and economic statisticians were strongly anchored in the empirical in that they were mostly concerned with what they measured. Mathematical statisticians focused rather on the formal methods with which these measurements were best to be undertaken (see Chapters 3.5.5 below and 5.2.). The general direction of the argument, however, remains: through sub-ordination of personal judgement to disciplinary, procedural (as in the case of the official statisticians) or public standards, the statistical results were not necessarily true but correct. As Porter notes with regard to ‘view from nowhere’ often evoked by critiques of the rhetoric of objectivity: ‘While quantifiers can scarcely assert that their conclusions come from nowhere, they *can* claim that they come from ‘somewhere else’ (Porter 1994: 209; emphasis in original). With regard to the statistical or quantitative products, this ‘somewhere else’ was partly derived from explicit procedures for gathering and

processing numbers, independent of the passions and interests that inform political debate.

Within the history and geography of science, there has developed an influential ‘*localist genre*’ (Ophir and Shapin 1991: 5; emphasis in original) marked by attention both to ‘where’ scientific knowledge is produced and ‘how’ to interpret the relationship between these local settings and other places of scientific practice and public reception (see Withers 2002; Finnegan 2008 for reviews). With regard to this strand of scholarship, the notion of objectivity or the practice of objectivation have to be regarded as cognitive and scientific-political responses to the chiefly geographical problem of how to validate and make credible scientific knowledge (Shapin 1995). If the making, maintaining, and modification of scientific knowledge is a local and mundane affair, concerns with, say, ‘objective’ procedures of data gathering or ‘objective numbers’ can reasonably be interpreted as strategies to ‘translate’ and justify knowledge claims from place to place. For instance, the ideal of impersonality which, as argued above, from the mid nineteenth century was believed to be best realised in the ideal of ‘mechanical objectivity’ as a standardisation of practices, measurements, or categories, can be interpreted as a particular response to challenges of translating scientific knowledge-making between people and knowledge-making devices and between scientific and public or political spaces.

As is well known, Latour’s concern with ‘metrology’ – the ‘mobilisation’ of facts through constant practice of enrolling, controlling and invigilating of things and humans – provides a powerful but not always a convincing explanation for the spread of knowledge (see Chapter 2.4.2). For Latour, scientific knowledge-making is as much a matter of scale as it is a matter of locality and travel. With regard to the former, Latour asserts that we come to call knowledge ‘scientific’ or ‘objective’ when all the elements in a network act together to protect it. The larger the networks of action, the more actors are ‘inscribed’ into it, the more durable is the network, and, hence, the more difficult it is to be undone. With regard to the issue of movement, Latour’s suggestion is, in Shapin’s words, that ‘the wide distribution of scientific knowledge flows from the success of certain cultures in creating and spreading standardized contexts for making and applying knowledge’ (Shapin 1995:

308). The development of standards and their circulation from place to place is thus considered one of the defining features of modern scientific practice.

Most importantly in the present context, Latour distinguishes scientific action in the field from the analysis within so-called ‘centres of calculations’, the social and epistemic spaces where local knowledge is assembled, tabulated and unified into universal knowledge through the use of theories and methods recognised as valid by the wider (scientific) community. Latour considers these activities within the centres ‘*additional work*’, necessary in order ‘to mop up the inscriptions’ undertaken in the field (Latour 1987: Chapter 6, quote 233; emphasis in original). As several chapters of this thesis show, the pursuit of objectivity, or more generally, of scientific credibility across a wide range of scales (from the file card, over the individual statistical table, to the statistician) and places (in the ‘field’, in the statistical office) requires recognition of *different* strategies with which this ideal was to be achieved in the respective context. Notions of objectivity (or, more generally, credibility) not only change over time, but also operate differently across sites.

Not coincidentally, Latour discusses this complex issue of ‘mopping up’ within the ‘centres of calculation’ with reference to censuses. Since the director of the census, following Latour, cannot be confronted at the same time with the millions of questionnaires brought in by the pollsters from the ‘field’ (i.e. household), particular elements need to be transferred from the questionnaire to a ‘more combinable paper form’. This operation, according to Latour, of ‘ticking rows and columns with a pencil is a humble but a crucial one’ for the precise reason that it partially solves the problem of ‘how to keep informants *by your side* while they are *far away*’ (Latour 1987: 234; emphasis mine). The geographical markers of spatial distance highlight the problem for Latour: people cannot be taken to the Census Office, but questionnaires can; all the questionnaires cannot be displayed (not in their ‘original’ form), but a tally can show where each answer to the questionnaire is represented by a tick in a column or a punch on the card for sex, age etc. Inspired by Latourian conceptions, this thesis identifies ‘informants’ across a wide range of scales. In addition to the examples above, one might think of numbers, file cards, standard textbooks and code keys as variations of the notion – all of which will be discussed at various points in this thesis (see Chapters 4.4.; 4.7.; 9.8).

As discussed above, the thesis further refers to science studies work that has focused on various forms of trust as a much more routine and pervasive means for how scientific knowledge is transferred and made credible from person to person and from place to place (see Chapter 2.4.2). Various scholars have deployed and/or combined Latour's 'metrology' and notions of 'trust' (without that they necessarily used a particularly spatial vocabulary) in a way that is useful to this thesis. For example, one of Porter's (1995) main arguments is to show that the language of numbers is primarily a 'technology of distance' well suited for the communication that goes beyond the boundaries of locality and community. Didier (2009: 115f.) shows how US agricultural statisticians during the late nineteenth century borrowed their mode of selection for the 'voluntary crop reporters' entrusted with conducting the survey on the ground from the democratic public sphere: the good and hence 'objective' informer in statistics was a good representative in the political sense. Later, for the New Deal relief programmes in the 1930s, he argues that the model of statistical interviewers or surveyors employed became increasingly 'industrialised' in the sense that hiring tests were established, longer instructions were provided and the like (Didier 2011). In relation to these studies, Chapter 9.8 discusses, in the context of the 'new employment statistics', how labour statisticians and occupational researchers resorted to numerical codes and occupational classifications (listed in handbooks) as standardised means to maximise their trust that the information on occupation was filled in correctly by persons they had no control over at a place distant from their own.

2.6. Survey *versus* Administrative Registers: The two Sources of Official Statistics

Desrosières' (2005/2008) in an ideal-typical depiction emphasises two different sources of official statistics – the survey or poll and administrative data – to, at the same time, refer to the various historical and technical interdependencies and combinations between the two. For analytical and historical purposes, surveys are to be differentiated from administrative data production and usage. Indeed, statistical

and administrative professionals have frequently set these two techniques apart and discussed in rather utilitarian and technical terms referring to the issues of data (un-) availability and the differences in costs. Desrosières, adding a sociological perspective, highlights that both are to be seen as the product of quite distinct forms of statistical activity and data collection, which, naturally, imply different (administrative, political) goals for which they are produced in a given situation (see also Starr 1987). Moreover, such historical and sociological perspective reveals that even if in theory these two major categories of statistical production are distinct, ‘la pratique des statisticiens a conduit à les rapprocher, voire à les combiner, pour répondre à des besoins différents les uns des autres selon qu’ils sont le fait de responsables politiques, d’acteurs économiques et sociaux ou de chercheurs’ (Desrosières 2005/2008: 96).

The common distinction between surveys and administrative sources rather has to be considered as the result of a particular social division of labour with regard to the statistical perception of the social world. Apparently, the distinction between the two sources reflects the institutional responsibilities: As outlined above, the StBA is in charge of the *Mikrozensus* (on the *Erwerbslose*) whereas the BA accounts for administrative data on unemployed persons (*Arbeitslose*). In practice, however, – and the example of the employment statistics/G-file will prove the case (see chapters 4 and 6) – a complex ‘alchemy’ (Desrosières 2005/2008: 109) between the two techniques describes the common state of statistical and administrative action much more appropriately. Thereby, Desrosières notes a certain ‘affinity’ between the individual cases cast into statistical form by administrative action, and the conventions on which the statistical labour proper is based. If it is true that administrative sources are produced on the basis of textual forms (e.g. employment files), which basically deal with individual cases, their eventual statistical use is far less heterogeneous and individualised than it may appear. Administrative action not only follows general rules and standardised texts. Also, categories and classifications are usually inscribed in certain legal notions of social justice and economic efficiency. Such transformation of individual cases into a more unitary legal and actuarial language can be considered ‘l’assise social technique des classes d’équivalence, sans laquelle aucun travail statistique ne serait possible’ (Desrosières

2005/2008: 110). Thus, what is often considered as the inappropriateness of administrative data (being replete with logics and languages foreign to official statistical procedures) is at the same time the necessary prerequisite for the statistician's work. Without the legal and administrative coding of particular situations (of non-work), their treatment on a general statistical level would be neither possible for the statistician nor intelligible for those addressed.³⁴

In a nutshell, surveys principally aim at describing an aspect of society whereas administrative registers, serving as an administrative instrument inscribed in particular forms of public action, reflect the institutional infrastructure of the state or other institutions it is inscribed in and for which purpose the data usually had been collected in the first place. Further, whilst surveys allow statisticians to carefully design the questionnaire according to particular demands, they can hardly be broken down by territorial units. For that reason surveys serve international comparisons better than administrative data. Whereas the latter's data production usually reflects any administrative purpose, which may well differ from one institution to the other, surveys, from a statistical point of view, are specifically designed for a particular purpose, and, thus, apparently less replete with administrative issues linked to, as in the case of the BA, tangential administrative proceedings and bound to labour law provisions and criteria. However, whereas surveys function under the constraints of a representative sample (and mathematical-probabilistic elaborations to alleviate the distortions that come with it), administrative registers are quasi-exhaustive and can thus well be broken down in small territorial units. Criteria and methods of quality evaluation as usually deployed by statisticians in the light of data preparation also differ between the two. Surveys are usually being cross-checked by the firmly established theory of sampling error, whereas for administrative data there exists

³⁴ Salais et al (1986) can be read in a co-constructionist vein in that the authors think together thought, action and (mainly statistical) description of unemployment as a social category in the 1930s in France. With regard to the 1936 survey, the authors note a strong correlation between the unemployment rate calculated per department and its particular character (urban and industrial). In departments made up of large industrial enterprises and big cities, labour offices had been active in rendering the state of the unemployed person visible thus recognising his or her situation (Salais, Baverez et al 1986: 126f.). As a consequence, it was easier for the unemployed to declare their status in the survey; it did just make much more sense to them and respective answers seemed plausible. It stands to reason to interpret this example in terms of a complex interaction between the survey of 1936, the activities of an administration (labour offices) and the public. Such co-constructionist perspective would not go as far as postulating the idea that labour offices 'constructed' unemployment. Rather, Salais et al show how unemployed numbers have to be regarded as a result of the intersection between job loss due to the 1930s economic crisis and the public and statistical remedies taken against the situation (see Desrosières 2005/2008: 102; 112 for more thoughts on the idea of intersection).

none, which does not mean that, as in the case of the G-file, similar mathematical-probabilistic checks were put in place (cf. Desrosières 2005/2008: 95; 97; 100 and Chapter 6).

2.7. Conclusion

This chapter has reviewed rather dispersed research perspectives under the ‘idiom of co-construction’ (Jasanoff 2004b) with a view to develop a research programme for the analysis of twentieth-century official statistics. Fundamentally, such research perspective has accounted for official statistics as a boundary object between sciences and the state. A critical evaluation of Foucault’s concept of ‘governmentality’ was shown to have usefully broadened the concept of ‘government’ to include, among others, particular forms of state knowledge. I argued, however, that the historical analysis that the concept is embedded in puts forward empirically and conceptually problematic notions of ‘statistics’ and ‘population’. Following Curtis (2002), it was shown that Foucault’s account of population employed the concept indifferently to three historically rather distinct notions (populousness, social body, and population). Further, it was suggested that the statistical practices during the eighteenth century had not yet developed in a way that would have technically and methodically enabled, as Foucault implicitly claimed, the construction of notions of ‘population’ and their ‘rates’ on a larger (national) scale. But it was not only the statistics’ technical and methodical incapability that inhibited what Foucault wanted them to do. It was also the absence of state-related statistical offices and state sovereignty more broadly that made impossible a ‘discovery’ of population as the pivot upon which the transition was supposed to have taken place from rule based on sovereignty to a regime dominated by techniques of government. I followed Curtis’ (2002) suggestion that Foucault’s argument at this point becomes circular. As the chapter showed in review of other research, the fabrication of ‘population’ into such a large-scale statistical concept and, indeed, abstraction required some kind of sovereign, state-related configuration. On that basis, it was implausible to suggest that ‘population’ emerged independently

of such political authorities and, furthermore, to grant ‘population’ the role of a, if not *the* historical factor in the transition from sovereign forms of government to the ‘governmentalisation of the state’. The chapter suggested that these empirical and conceptual confusions in Foucault’s analysis could be attributed both to the lecture format and the high level of abstraction in his analysis.

The chapter, however, put forward a more general problem in Foucault’s analysis of statistics, one that is at the root of the criticism presented thus far. The circularity was shown to be originating in his reductionist analysis of the relationship between statistics and the state/government. For Foucault, the latter seems to control the statistical apparatus, which, in turn, is depicted as rather monolithic and lacking own scientific or administrative practice. Again, a benevolent reading of his lectures suggested explaining this reductionism by the geographical focus of the historical cases studies within which he came to conceptualise a modern understanding of statistics: the smaller states of seventeenth-century Germany and Ireland occupied by England in the same period. His gloss of the military government in Ireland, I suggested, plausibly led Foucault to conceptualise an immediate and close relationship between statistics and (military) government. In review of relevant secondary literature, the chapter underscored, however, that the seventeenth-century context of occupation and domination constitutes a rather exceptional case for the emergence of statistics as a state science. More importantly, conceptual conclusions drawn from these historical circumstances can only at the risk of gross overgeneralisation be transferred to other places and historical periods.

The chapter argued that so-called governmentality literature fell victim to the potential fallacy behind Foucault’s analysis. Founding texts by eminent governmentality scholars, I argued, not only uncritically imported Foucault’s argument of ‘the eighteenth-century discovery of population’ to locate ‘political power beyond the state’. More importantly, these texts were shown to have unreflectingly adopted Foucault’s reductionist and schematic notion of statistics, disregarding both historical context and statistical content. As a consequence, their analysis was shown to perpetuate Foucault’s rather abstract and overly schematic analysis of statistics and the state. The chapter used Dean’s (1996) warnings against an indiscriminate use of the notion of ‘technology of government’ – under which

‘statistics’ are subsumed – to show that Foucauldians more generally tend to reduce the technical side of governmental practice to the merely technological thus obscuring the historically distinct relays and linkages, and social relations that exist between expertise (whether technological or not) and specific forms of political and societal order.

The chapter moved on to develop several elements or levels of analysis on either side of the divide between sciences and the state. With regard to the former, the cognitive dimensions of making statistical knowledge have been noted. Quantification as social activity, as was shown, comprises forms of agreement and measurement. ‘Objectivity’ is not just a catchword but also a socio-scientific concept. As such, it signifies various discursive modes by which from the nineteenth century onwards observations of the social world were made and justified. The disciplinary and procedural mode were introduced here as important characteristics of statistical discourse. Both tend to replace subjectivity in scientific observation with numerical standards and formulas and hence allow the construction of intersubjective communication and agreement. Historically, ‘procedural objectivity’ in particular contains strong moral and political connotations directed towards subjectivities thought amenable to control through self-restraint and other forms of self-transcendence. The chapter examined further the notion of scientific objectivity in relation to the eminent geographical problem of how to make credible and defend scientific knowledge claims between local settings and other places of scientific, administrative or political practice. The chapter showed that if scientific knowledge making has to be considered a genuinely local and mundane affair, as the ‘localist genre’ (Ophir and Shapin 1991) claims, ‘objective’ procedures of data gathering or the claim for ‘objective numbers’ can be interpreted as a cognitive, statistical-technical, as well as a moral strategy to ‘translate’ validity and justify credibility from place to place. Latour’s concern with ‘metrology’ – the mobilisation of facts through the circular practice of enrolling, controlling, and invigilating of things and humans – was shown to provide a particular fruitful albeit not unproblematic framework for the analysis of the movement of scientific knowledge. Importantly for the present context, his distinction between scientific/administrative practices in the ‘field’ from those in the ‘centres of calculation’ urges us to recognise that the pursuit

of objectivity across various scales and places requires the examination of different strategies with which the ideal was to be claimed. The chapter argued that further to Latourian metrology, more routine and pervasive means for the spread of scientific/administrative knowledge should be taken into consideration such as the induction of trust as moral resources to ‘tame’ the subject.

The relationship between things (statistical machines and file cards) and human action has been introduced as a further important field of statistical discourse. I argued that technology structures – crucial to statistical productions from the early twentieth century – emerge in but do not pre-define human action. The chapter moved on to look at four different discursive modes social actors can adopt with regard to statistical reasoning. I argued with Desrosières for a third space of comprehending the use of statistics in public and scientific spheres, one that recognises the constructedness of statistical objects but which, on the ontological level, respects their ‘reality’ under certain political conditions.

The claims were made against the backdrop of Boltanski and Thévenot’s (2006) more general framework of moral justification. Their work helped this chapter to highlight the links between micro- and macrosociological study of statistics (and the social world more broadly). Different statistical forms require recognition by the state which they help to visualise and shape. As was shown, thinking ‘politics’ and ‘statistics’ together requires analytical attention to a range of scales: from the cognitive coding and counting to different modes of public thought and action in the wider context of governmental institutions and state forms. The following chapter shows how this analytical framework played out historically and geographically with respect to the (West) German twentieth-century case.

**3. History, Method, and Archive: Official Labour
Statistics, Institutions, Peoples, and Discourses in
Germany c.1890-1973**

3.1. Introduction

Conceptually and historically, the body of work outlined in the previous chapter urges study of the late nineteenth century, when across the Western World current categories for work and labour came into being. During this period, administrative, political, as well as legal and statistical measures defined the statutes of the salaried people, and, thus, that of the unemployed. For instance, the German word for unemployment, *Arbeitslosigkeit* (literally ‘the state of being without work’) did not come into general use until the 1892 economic recession when the situation of non-work gained legitimate status within the political economy (Zimmermann 2006: 41f.). Only in 1885 did the notion *Arbeitslosigkeit* find its way into the *Handwörterbuch der Staatswissenschaften* (Conrad, Macamo et al 2000: 462). According to Vonderach, the notion of ‘labour market’ also only began to make sense at the turn of the century, crucially supported by the foundation of the journal ‘The Labour Market’ (*Der Arbeitsmarkt*) by Jastrow³⁵ in 1897 (Vonderach 1997: 77f.). In the case of the US, Garraty points out that the earliest use of ‘unemployment’ in the Bulletin of the U.S. Department of Labor occurred in 1913 (Garraty 1978: 122). Zimmermann (2006) and Topalov (1994) have shown how the notions of ‘placement’, ‘insurance’ and ‘statistics’ around which discourses of unemployment began to evolve in the late nineteenth century in Western welfare states emerged as part of more practical considerations of social intervention. The definition by Marx and Engels that ‘involuntary idleness’ was a necessary element in the capitalist system of production was commonly accepted and reflected the opinion of most nineteenth-century economists (Mares 1997). As with other dangers of liberal industrial society (understood as faults or misfortunes of ill health, old age, and work accidents, for example), however, the condition of being without work was seen as a personal rather than a social problem: its victims were responsible for their own condition, or to rely on measures taken by charity, municipal poor relief or by trade unions (Niess 1979/1982: 47f.; Garraty 1978: 104f.; Ewald 1986).

By contrast, unemployment in its ordinary sense – and the way it is understood here – has primarily a social dimension operative for social intervention.

³⁵ Ignaz Jastrow (1856-1937), professor for state sciences in Berlin 1905-1924, was instrumental in implementing municipal placement services in the German Reich. See Maier (2004: 155-6).

Conceptually, this approach emphasises that the emergence of a new category, as well as the construction of a related social problem to be resolved, should not be considered a means to describe a somehow pre-existing social reality of non-work linked to forms of labour and social assistance. Rather, it was ‘un instrument destiné à la [the reality of non-work, JM] changer’ (Topalov 1994: 15).³⁶ In this sense Topalov highlights the *invention* of unemployment at the turn of the nineteenth century as opposed to the *discovery* of a new reality (lack of work and poverty have existed in all historical periods). For Topalov: ‘C’est pourquoi l’on peut dire que le concept moderne du chômage a précédé le chômage moderne lui-même et a été forgé pour créer de dernier au moyen des politiques de réforme qu’il a permis de concevoir et de légitimer’ (Topalov 1994 : 15). Pointing to the gradual process of the state, through social insurance schemes and respective institutions which took over responsibility for intervention in unemployment, this body of work is concerned with the objectification of the phenomenon of non-work as a ‘social fact’, the consequence of the recomposition of prior categories within the domains of charity, local assistance and labour unions respectively.

The history of unemployment is closely linked to the statistical and legal codification of work as a force for social cohesion. Without reviewing the history of work and wage labour (Castel 1995; Kocka and Offe 2000), it is important to underline that the constitutive counter-part of non-work was not work in general, but its reduction to particular accepted meanings. Considering wage labour as a historically fluid entity (Kocka 2000) reveals the changing relationship between work and politics. Wage labour, determined by the principles of economic liberalism, was understood as a commodity that each person theoretically should be able to sell by way of agreed contracts. During the ‘fabrication of labour’ (Biernacki 1995), work, through contractual mediation, became ‘a general legal and abstract category, separate from the individual who produced it. This was the invention of abstract work, quantifiable and measurable in time and money’ (Zimmermann 2003: 239). Paradoxically, it was the Marxist critique which introduced new elements to the conceptualisation of wage labour (see Conze 1972: 200-5 for a concise outline of the

³⁶ Note that such epistemological historical stance towards unemployment does not shine through in Garraty’s (1978: 103-128) analysis, which mainly refers to contemporary economic thought. See Topalov (1985: 11-13) for further elaboration on the concept of ‘invention’.

Marxian notion of work). Marx introduced labour power (*Arbeitskraft*) and non-work into political economy, by means of which work was no longer reduced to the economic sphere of buying and selling goods, but ‘henceforth associated as well with the means of production in a capitalist market society’ (Zimmermann 2003: 240).

Against the backdrop of such broader developments, the following sections look at crucial episodes in the birth of unemployment as a social category between 1871 and 1927 in the German Empire and Weimar Germany. Particular emphasis is laid on the concomitant establishment of the labour administration (Reich labour office, ministry of labour, labour offices, including labour statistics) across a national federal territory simultaneous to its unification in legal, political and spatial terms after World War One. Crucially, these formalisations enshrined in the 1927 RAVAV would lay the administrative, political and also statistical foundations for the post-1945 period – with the important rupture/continuity of the Third Reich 1933-1945. As will be shown, the experience of being out of work was first and foremost embedded in local contexts. It was only with the construction of a legal and statistical generality that various practices in the administration of labour would become formalised on a national scale, then under the auspices of the state.

The chapter moves on to show how the National Socialist takeover in 1933 largely destroyed the labour administration official established in the previous decade only. Crucial for the present context, the Nazi preparation for war and the concomitant economic planning policies gave birth to a new statistical database of labour based on file cards. Various chapters of this dissertation will scrutinise the significance of that database and the politics involved for the post-war context.

The main part of the chapter concerns the re-establishment and evolution of the labour administration after 1945. Particular attention is paid to the double structure of labour statistics as produced within the StBA and the BAVAV. Official Statistics in West Germany are further introduced with regard to professional backgrounds (social, official, and mathematical statisticians), technological equipment, and institutional spaces. The StBA, as well as the *Statistische Beirat* (StBR, Statistical Advisory Committee) and co-called *Amtsleiterkonferenzen* (chief officer conferences) constitute institutional spaces of statistical expertise important to this thesis. This section particularly highlights the legalistic character of German

official statistics regulating every StBA statistical activity. Further, the rationalisation and coordination of statistics has to be emphasised as a remarkable *topos* of the German statistical discourse in that it emphasises the economical character or efficiency as a criterion of legitimacy (to speak with Boltanski and Thévenot 2006) for the development of statistical programmes and elicitation – an argument that crucially supported those in favour of representativeness (in opposition to a full count, see Chapters 6 and 9). Some historical details of the German Statistical Society (DStG) are recounted as far as these are considered relevant to the context of this study. Given the absence of scholarly historical work on the DStG, Grohmann, Krämer et al.’s edited volume, the contributions of which were authored by professional statisticians and members of the DStG at the occasion of its centenary, will have to serve as main source for this section (Grohmann, Krämer et al. 2010).³⁷

The OEEC/OECD’s organisation and functioning are presented, as well as some important characteristics of West German post-war statistical discourse, namely a close relationship between statistics and economics, and economic and employment forecasts as a mode of government. The chapter ends with the presentation of archival evidence and with a brief discussion of the methods applied in analysing this material.

3.2. From Situated Unemployment to a Socio-National Category 1890-1933

The formation of unemployment in the German Empire was simultaneously accompanied by the establishment of a coherent order linking individual identities to economic and political practices on the basis of the principles of class and nation (Wagner and Zimmermann 2005). The situation was thus characterised by a variety of co-existing potential spaces for the categorisation of unemployment, defined by different actors with different ‘principles of grouping individuals together, or in other words on the expression of the social link (*Bindung*) which prevailed in a given

³⁷ The epistemological and methodological problems of such internal perspectives on the history of statistics will be discussed in Chapter 3.9.

group or context' (Zimmermann 2003: 243): Town councils, historically, were in charge of social issues by virtue of the principle of self-administration (*Selbstverwaltung*), which favoured place of residence (in German administrative language: *Unterstützungswohnsitz*) as the rationale for legitimately deciding upon entitlement for social assistance in order to differentiate the unemployed from the indigent. Trade unions, in contrast to territorial entities, favoured the profession as a distinctive expression of the social link, mainly concerned with the reduction of pressure on wages exerted by the unemployed (Zimmermann 2006: 97-121).³⁸ In the context of what Zimmermann (2006: 97) calls 'situated unemployment', these principles of grouping – until the First World War – generated a plurality of practices with regard to unemployment and a multiplicity of criteria by which to identify the unemployed (Zimmermann 1996).³⁹

Zimmermann (2006: chapter 3) highlighted the central role of statistics as a means to reduce contested and multiple situations of non-work into a unitary and national category of unemployment by the end of World War I. In her account, such formalisation is depicted as mainly a transformation of how socio-economic knowledge and knowledge about society went hand in glove with transformations of methods and objects of social sciences by the end of the nineteenth century. Zimmermann emphasises the role of various associations (*Verbände*) as crucial for the collectivisation of spatially – and socially – restricted initiatives (mostly on a municipal level) to formalise the fight against unemployment at the turn of the nineteenth century.⁴⁰ The work of the association of *Deutsche Städtestatistiker* (German Municipal Statisticians) in particular contributed to translating the discussion of unemployment to a national level (especially within the *Reichstag*).

³⁸ See Mares (1997) for the employers' role regarding the development of unemployment insurance in the Weimar period.

³⁹ Geographically speaking, the formation of unemployment as a social category was related to several scales at the same time. The agents constructing the issue (statisticians, legal experts, politicians etc.) acted on different levels: municipal, national, even international, in such a manner that these varying scales were in part constituted through one another, and, at the same time, defined the logics of action related to situations of non-work.

⁴⁰ Indeed, before the *Reichsamt für Arbeitsvermittlung* started operation and published on a regular basis the unemployment numbers announced by local employment offices within a general survey for the entire German Empire, situations of non-work were, during the first half of the nineteenth century, mostly indirectly estimated or inferred from what Niess (1979/1982: 77) calls a 'symptom statistics'. Within the framework of poverty and social assistance – unemployment as term and concept had not made its way into statistical nor political nomenclature and language yet – data were not directly collected, but inferred from other symptomatic data available on, for instance, emigration, meat consumption, poor relief, vagabondage or delinquency. The numbers of social insurances, sickness funds in particular, delivered a similarly fragmented picture of unemployment, as already recognised by contemporary experts (Kumpmann 1923: 798f.).

Unemployment as a social category must not be reduced to a mere emanation of the state (the *Reich* and its governmental and bureaucratic institutions). On the contrary, ‘unemployment’ was to be considered a ‘long-term product of complex interactions between authorities concerned with labour issues on the national (central state), the local (municipalities) and the professional (trade-unions) level’. The ‘construction of a statistical generality’ (Zimmermann 1994) was at the heart of this process, epitomised by statisticians’ request for an agreement on what is to be counted (classification of the unemployed) and the application of a single, comparable statistical methodology (see also Zimmermann 1996: 19-29).

In the German Reich, different attempts to unify the various trade unionist and municipal statistics towards a national statistics of unemployment were mainly a concern for trade unions, who vehemently pushed for its implementation following the economic recession of 1891-92. As Zimmermann (2000; 2006: 205-253, especially 205-210; 220f.) has shown in great detail, the standardisation of different statistics between 1907 and 1914 mainly failed due to the lack of both a territorial frame for the establishment of equivalences between local economic practices and their socio-political response in the form of statistical measurement of social assistance or insurance benefits and, on the other hand, the assumption of political responsibility by the national government to do anything about the problem of unemployment (see also Maier 2004: 31-35). Such equivalent relationships between the statistical average, administrative action, and economic practices were further hindered by the absence of a conception of the common good. The democratic order based on fundamental values such as equality, dignity and trust so important to the early twentieth century social reformers could not be formulated in a way that economic, social and political practices were made equivalent on the level of the nation with a view to combat the problem of unemployment. Only with the planned economy of World War I could the Reich administration and the state assume its role as executive concomitant with the formation of the state territory into a unitary space of intervention. For the turn of the century, Niess aptly notes that ‘it was unimaginable for the state to intervene into the labour market to remedy the consequences of mass redundancy of craftspeople, or the complexity of markets in general. To the contrary, there were plenty of voices who explicitly commanded the

administration to ignore unemployment' (Niess 1979/1982: 94; see also Stolleis 2001: 297-304).

In this context, the national aggregation of statistics derived from trade union (*Gewerkschaftskassen*) and certificates of employment (*Arbeitsnachweise*) since 1903 on behalf of the department of labour statistics within the Imperial Statistical Office was a second-class remedy. These trade union statistics of unemployment were published monthly for many years by the *Reichsarbeitsblatt*, the official German labour gazette, beginning with 1903; earlier, they had been compiled quarterly.⁴¹ These nongovernmental records were rather a 'calming measure' (Zimmermann 2006: 205) resulting from compromise between requests of the *Reichstag* for a frequent unemployment statistics, and the government's resistance to a national census. Any reliable engagement of the Reich in the field of unemployment statistics was not yet in sight. Moreover, around 1906 fierce polemics broke out on the methods used. Social Democrats brought to the table the view that the records were incomplete since not all workers were union organised (thus unrepresented in the labouring population). Numbers also depended on the purpose of the recording process, which affected the willingness of union members to provide information. In short, the aggregation of labour union records into a national unemployment rate by the Reich was considered a political fraud. These records, at most, allowed estimating tendencies of labour market evolution from one quarter to the other. As Fritz (2001) emphasises, the monthly sample testing on behalf of the trade unions (*Gerwerkschaftskassen*) would remain the only source for a continuous observation of the employment level until the introduction of the labour identification card (*Arbeitsbuchkartei*) on the basis of a compulsory registration (*Arbeitsbuchpflicht*) within the labour offices in February 1935 (see section 3.3).

Subsequently, meetings were arranged between various labour union leaders and leading statisticians of the Reich Statistical Office to explore the ways in which

⁴¹ Around 1900, unemployment rates had been determined by trade unionists for the first time on a national level to be subsequently taken over and published by the Statistical Reich Office from 1914 (Zimmermann 2006: 224). Shortly after its re-foundation in 1927, the *Reichsamt für Arbeitsvermittlung* (Reich Placement Office) began its own compilations (Stern 1958: 1042). Since then, the idea of a definable and measurable unemployment rate slowly began to be integrated into both the network of common social representations of the labour market or the Welfare State broadly. Public consciousness learned to read and understand unemployment statistically as a 'social fact'. Thus, unemployment rates, as Porter notices, hinted at, among other things, 'a condition of society involving collective responsibility rather than an unfortunate or reprehensible condition of individual persons' (Porter 1995: 37).

the heterogeneous and provisional labour union records might be aggregated to national rates and figures without at the same time abandoning the routines and practices of data collection linked to the organisational structure of the respective union. The national aggregation for statistics of employment services faced similar difficulties. How to establish and secure the representativeness of diverse local practices without giving up the local practices in which they were embedded? During subsequent talks between representatives of the Reich Statistical Office and the ‘Association of German Employment Offices’ (*Verband Deutscher Arbeitsnachweise*) in 1907 and 1912, the Reich statisticians understood that only a political link at the level of the nation could bring into being the general principles upon which labour market statistics could be based. Thus, in union with the local employment services, Reich statisticians pushed the government to intervene, which would guarantee a common, national frame of reference to coordinate the diverse practices on different territorial scales (municipalities, provinces and the Reich). ‘The territorial unification of practices of labour administration – inseparably linked to the establishment of a national labour market – was thus made into the necessary precondition for any progress towards a statistical standardisation’ (Zimmermann 2006: 207). A common mode of measurement for the entire German Reich would eventually be introduced given the urgencies of the World War I, simultaneously to the *Reich* taking over legal and governmental responsibility for a national politics of unemployment under the umbrella of the 1919 Weimar Constitution (Zimmermann 2006: 221-253; Niess 1979/1982: 74-87): The *Reichsarbeitsamt* was founded in October 1918, and by March 1919, was transformed into the ministry of labour, functioning as the first institutional framework for the development of a national employment policy, and gathering expertise on questions of employment and work for the first time within the governmental executive (cf. Rindt and Saffert 1968: 13f.; Zimmermann 2006: 232-235).

With the development of municipal employment agencies, data availability slightly improved. Para 2 of the 1920 decree on the establishment of a Reich Placement Office (*Reichsamts für Arbeitsvermittlung*) defined as a first task ‘the observation of the labour market and the issuance of continuous publications (*Reichs-Arbeitsblatt, Arbeitsmarkt-Anzeiger*) about its situation for the purpose of

initiating conciliation between supply and demand between different regions and professions' (taken from Maier 2004: 32). At the same time, the Reich Placement Office was granted the status of an 'independent higher Reich administration' (*selbstständige höhere Reichsbehörde*) within the Reich Ministry of Labour's area of responsibility released from the Reich Statistical Office, which was then under the authority of the Reich Ministry of Economics. With institutional re-organisation, administrators (newly trained scientifically and statistically) and technical equipment found their way into the offices. Clearer alignment of the duties to the needs of the department's administration was also noted (von Valta 1923: 878). The 1920 decree reflected the need to have data regularly available for the new Reich Placement Office with 'local and occupational details and as current as possible' (von Valta 1923: 878) – a precondition that would not have been possible within the Reich Statistical Office's procedures.

These improvements in labour statistical terms were given legal foundation with the 1922 *Arbeitsnachweisgesetz*: In the name of the President of the Reich Placement Office all non-commercial employment agencies (in municipalities, chambers of commerce, craft, and agriculture, health insurances etc.) were required to report monthly to the *Land* Employment Office (*Landesamt für Arbeitsvermittlung*) according to a standard procedure. At the same time, for the Reich office to perform its task it was obliged by Reich law to undertake general labour statistical enquiries, and to publish their results. (cf. von Valta 1923: 878/9). Thus, the 1922 *Arbeitsnachweisgesetz* authorised the Reich office to gather data (on the basis of 'mandatory' disclosure of information) on the condition that results were published, and the duty to report was met. Information was gathered on the situation of the labour market, working conditions, strikes and lockouts as well as on the member flow in employers' and employees' associations (Vonderach 1997).⁴² In Germany, the 1927 law on *Arbeitsvermittlung und Arbeitslosenversicherung*⁴³ (RVAVG) was ratified, eventually rendering intelligible the social category of unemployment within a nationally closed space of political action and entitlement to

⁴² The history and geography of the unemployment rate has to be placed in this context. The detailed history of the invention of unemployment rates around 1900 in the German Reich is yet to be written (see Topalov 1994, ch. 13 and 14 for the cases of Britain, France and the US). The legitimate measurement of a given labour market performance can be interpreted in the context of what Fourcade (2006: 163) called the ongoing 'reconstruction of national societies as economies' (see chapter 3.8).

⁴³ Law on 'the placement of unemployed people and unemployment insurance'.

welfare based on state membership.⁴⁴ The RVAVG laid down the principles of post-war unemployment policies bringing together placement, insurance, and vocational training and counselling. Among other things, the RVAVG combined earlier institutional developments, such as the Reich Placement Office (*Reichsamt für Arbeitsvermittlung*), which kept statistics on employment of labour, unemployment and employment service. The double aim of occupational rehabilitation und financial security in case of job loss can be considered as its most distinct characteristic, in practice until the so-called Hartz-reforms in the early 2000s (see Zimmermann 2006: 243f.). Thus, beyond the principal idea of earnings replacement in case of job loss, the incorporation of apprenticeship training positions und employment service, as well as vocational training, pointed in the direction of alleviating the consequences of unemployment, and, even of overcoming unemployment altogether.

In line with Salais et al's (1986) perspective, several historical works pointed to the emergence of labour markets through institutional arrangements and conventional forms of action at the turn of the century. Labour offices helped to visualise and put into practice the relationship between supply and demand as the fundamental ordering principal of labour markets (Buchner 2008). In this regard, the notions of supply and demand were gradually translated into other resources such as material equipment, economic theory and architectural arrangements necessary to establish the labour market as a market (Mattieson 2007). Labour offices at that time became spaces of 'modern' experiences, where gender roles (the separation of female and male unemployed persons mirroring a labour market for women and men) and social class division (contact between employers and unemployed within labour offices was practically impossible) were enacted (Schlehan 2005).

The differentiation of labour statistics into administrative statistics (*Geschäftsstatistiken*), and special surveys (*Sondererhebungen*) during the early twentieth century was intimately linked to these institutional and conceptual practices. In the first instance, 'records for mass observations are generated automatically in the course of bureaucratic procedures within a particular administrative branch'. In this case, textual documents, produced by registering

⁴⁴ By 1911 a single national insurance scheme was established for white-collar employees in Germany (cf. Kocka 1981), and when unemployment insurance was introduced in 1927 this scheme coincided for the first time with the territorial borders of the *Reich*.

‘recurrent incidences in the course of regular administrative service’ (von Valta 1923: 873) only needed to be transformed into statistical information by listing and, subsequently, counting them. As for the other case, the material was not necessarily readily available, but needed to be gathered through ‘special surveys’ (von Valta 1923: 873), as was the case for e.g. wage statistics. Also, the task of labour statistics, as for official statistics more general, had been defined in the 1920s already as a double one of administrative self-control and data procurement for the purpose of social legislation. In this context, labour statistics were defined as ‘that section of the totality of mass observation by which the social conditions of the working population and its relations to economic life are numerically explored’ (von Valta 1923: 872). Also, the notion of labour statistics as a ‘guide and counsellor for the healthy development of social policy and legislation’ (von Valta 1923: 873) can be discerned in later statements.

The formalisation of unemployment was also advocated by powerful transnational reform networks, such as the 1910 International Conference on Unemployment and the ILO after World War One (Besson and Comte 1992b; Topalov 1994). Whilst experts played an important role in helping the welfare state to be put in place as a national social state, and consecutive reforms were essentially a nationalising phenomenon, their role of experts seems to be even more fundamental on the international level. Several studies have shown how, especially during the 1920s and 1930s, the international scene became a specific resource for national experts desiring recognition from local practitioners (Rodgers 1998; Topalov 1999; Kott 2008). Transnational perspectives opened up a whole new world for the exchange of ideas, experiments and expertise enabling national experts and administrators to reflect on the national categories in use: as Bertrams and Kott observe, ‘les perspective ,transnationales’ fournissent les moyens propres à subvertir les isomorphismes mis en place par les États-nationaux aux XVIIIe et XIXe siècle’ (Bertrams and Kott 2008: 2). At the same time, in order to compensate partly for their rather weak political and social legitimacy, these networks or transnational bodies ‘s’appuient sur leur capacité d’expertise pour imposer leurs orientations politiques sur les scènes nationales où se prennent les décisions politiques’ (Kott 2008: 27). In 1929, the ILO began publishing a world index of unemployment,

which, as its producers were aware, had various limitations and at best only revealed trends (Garraty 1978: 169f.). Unemployment figures across different national settings, as it turned out, were hardly comparable, but little was done during the 1930s to make figures comparable internationally, or to measure part-time unemployment. ‘As late as 1939, the index, although by then somewhat improved, was prefaced with an admonition that its figures were merely approximations’ (Garatty 1978: 170).

3.3. The Destruction of the Labour Administration and the Birth of a New Database 1933-1945

The 1933/34 purge of political and racial ‘undesirables’ within the RAVAV self-administration is considered a particular case in the nazification of the German bureaucracy (Silverman 1988). Given the agency’s functional connection to the German labour market, the RAVAV included many alleged communists, socialists, and Jews subject to the purge. The National Socialist takeover in 1933 also portended for the RAVAV, as Silverman argues, not its nazification but its ‘destruction’ (Silvermann 1988: 506). At the same time, Hitler’s preparation for war placed mounting demands on the RAVAV. Its agencies became increasingly involved in compulsory labour allocation methods in the course of which the workbook was introduced in 1935.

Between April 1933 and March 1934, roughly 6000 employees of the Reich Labour Office were dismissed (out of 26 500). At the same time, more than 11 000 new employees were hired, mostly NS party members from the pre-1933 period (so-called ‘Old Fighters’) (Silverman 1988: 514; Maier 2004: 95). A decree from March 1933 empowered the Reich Labour Minister to transfer the authority and powers of the self-governing committees to the president of the RAVAV, Dr Syrup.⁴⁵ The administration, in an attempt to realise the *Führer*-principle, was transformed from a self-governing body to a state-directed administration for the mobilisation of labour.

⁴⁵ Dr Friedrich Syrup (1881-1945) studied machine construction, took his examinations in engineering, and then obtained a doctorate in jurisprudence after university studies in Rostock and Munich. See more biographical details in Silverman (1988: 501-2) and Maier (2004: 161-2).

(Niess 1979/1982: 177; Maier 2004: 92). From the very beginning, its activities were incorporated into preparation for war. 'Placing the unemployed in work naturally continued as an important RAVAV function, as Silverman argues, 'but *regulation* of the labor force now became just as important as the pursuit of full employment' (Silverman 1988: 502; emphasis in original; see also Kahrs 1990: 17-26). The term 'labour market' was wiped off official language use because of its 'liberalist' connotations (Maier 2004: 98).

Importantly for the present context, with the preparation for war, a new data gathering-cum-statistical system was introduced: the workbooks. The workbooks had first been issued in 1935 on the initiative of the military in the context of conscription (Tooze 2001: 236), but were essentially directed towards labour allocation for the purpose of economic planning and the mobilisation of labour (Maier 1986).⁴⁶ The introduction of the workbook (the initial issue was not completed until the autumn of 1936) provided RAVAV authorities with the name, birth date, family situation, place of residence, education, skills, knowledge of agriculture, special preparation, and employment history for every German worker and salaried employee earning up to 1000 RM per month (Maier 1986: 308; Silverman 1988: 505). Upon commencement of employment, every employer was required to register a work book with their employer, who transferred the information to the local AA. There, the individual information was stored on a file card (*Arbeitsbuchkarte*) compiled for every work book, and updated by employers' notifications (*Veränderungsanzeigen*) and by inspection on behalf of the AA placement officer. By the end of the first issue in August 1936, the occupational history contained in the workbook was mirrored in the filing system. This essentially comprised four compartments: a main file, a placement file, a dormant file, and a tracing file.

By February 1938, these notifications, together with health insurance notifications were transferred to health insurance funds on a standard form. Health insurance agencies double-checked the information (for completeness and legibility) and transferred the carbon copy of correct blanks to the AA. As Maier notes, the amalgamation of insurance and labour administration for the purpose of statistical

⁴⁶ In January 1935, a similar 'libretto del lavoro' was introduced in fascist Italy. See Maier (1986: 307).

registration was a crucial step towards later efforts of similar kind. For Maier, it even set a precedent for the ‘integrated notification procedure’ (*integriertes Meldeverfahren*) of the 1970s (Maier 1986: 308) – an issue I will further discuss in this thesis. In June 1938 and August 1941, surveys of more than twenty-two million workers were carried out respectively by simply sifting through the card files. Since the entire operation was internal to the labour administration the survey was completed with unprecedented speed. As Tooze notes, ‘[r]egional and national figures classified by sex, age and 200 occupational categories were compiled in the space of only five weeks’ (Tooze 2001: 236).

Maier (2004: 200-202) and Kahrs (1990: 24) reproduce partial copies of a work book. The book, in shape and size comparable to a passport, comprised thirty-two pages of which twenty-six were reserved for the occupational history of the holder (name and seat of the company/employer, its kind, commencement and termination of employment, as well as occupation). Information was to be filled in handwritten (by pen). Interestingly, no photograph of the holder was required. The signature alone was considered sufficient to prove identity. This was probably due to the fact that the book was held with the employer, and not carried with one like a passport. The office number (*Dienststellenummer*) together with a unique consecutive number coded every book.

In December 1938, the authority and responsibility of the RAVAV president was transferred to the Minister of Labour. The RAVAV disappeared as a discrete entity, its headquarters were incorporated in the Reich Labour Ministry, LAÄ and AÄ became Reich institutions under the auspices of the Reich Labour Minister, and Syrup was appointed state secretary in the labour ministry (Kahrs 1990: 26-29). Through decrees in April 1939 and June 1941, compulsory workbooks were gradually introduced for the entire economically active population. Among others, foreign workers were now required to register a workbook, too (a different model).⁴⁷ The labour administration was instrumental in preparation for war and in the persecution of Jews. Before September 1939, AÄ were empowered to remove employees from their workplaces for special service obligations (*Dienstverpflichtungen*). With the outbreak of the war, the ‘militarization of the

⁴⁷ Maier estimates that more than 35 million work books were issued from 1935 (Maier 1986: 308).

labour market' (Kahrs 1990: 53) was further accompanied by a radicalisation of the RAVAV institutions. The 'total management' (*totale Lenkung*) of the labour force and the involvement of the labour administration in forced labour programmes in occupied territories were the most significant developments (Aly, Hamann et al. 1990).

3.4. The Re-establishment of the Labour Administration After 1945

For the re-establishment of post-1945 labour administration, the experiences of the Weimar Republic were paramount. 'The state's responsibility for the economy' (Zacher 2001: 447) was a consequence emanating from the time preceding the 1919 Weimar Constitution: the experience of war economy on the one hand, the fundamental questioning of the private economy by the revolutionary forces in 1918/1919 on the other. During the 1920s, the alternative between a market economy guaranteed and set free by the state, and economic structures governed by more immediate social steering (e.g. economic management, price regulations) and designed in favour of social aims (e.g. socialisation of enterprises) could not be resolved. In the post-1945 period, the alternative was being developed towards a social market economy setting a competitive order to maximise the GDP intended to bring about immediate (by distribution) and mediate (by re-distribution) social benefit. 'Economic growth is the leitmotif of west-German post-war history' as Abelshausen aptly summarises the credo (Abelshausen 1983: 85). An inherently optimised economy was given priority over an immediately managed one.

However, actual economic policy practices during the immediate after-war period, albeit inspired by ordoliberal ideas, carried strong marks of social policy and economic steering, rhetorically aptly expressed in Müller-Armacks 'socially guided market economy'. For example, Müller-Armack advocated an 'employment policy embedded in economic policies' with the aim to 'make all reasonable efforts to guarantee security to workers against crisis backlashes' (Müller-Armack quoted in Schmid, Wiebe et al 2005: 274/5). In this sense, some leading figures of 'social market economy' considered 'full employment' a pre-condition for free wage

calculation and not the other way round. Moreover, with regard to labour market policy and unemployment insurance, programmatic ordoliberal texts contain relatively few concrete ideas. Lampert (1981: 758) rightly points to the ‘considerable deficit with respect to labour market theories and labour market policy programmes’ within the social market ideology.

Against this backdrop, the institutional foundations laid down during the Weimar period – the 1927 AVAVG in particular – was perennial for the post-war reconstruction efforts in the field of labour market administration and policies. As laid down in the Weimar legislation, placement and vocational training were prioritised over the grant of benefits. The so-called ‘great amendment’ of the AVAVG in 1957 then defined the notions of placement und vocational training more clearly, and a comprehensive catalogue was put in place to prevent and terminate unemployment (Schmid, Wiebe et al. 2005: 283f.). With regard to employment service, the 1957 amendment re-affirmed the monopoly of placement under the auspices of the BAVAV. A larger pool of people to be placed and improved transparency was regarded as advantages of a central institution. (Schmid, Wiebe et al. 2005: 295). With entry into force of the *Grundgesetz*, freedom of profession and movement were guaranteed and employment planning rejected. All management prescriptions (*Lenkungs Vorschriften*) hitherto in place were annulled, and the alterations of the corresponding directives were requested from the Allies – with the exception of the (rather controversial) *Arbeitsplatzwechselverordnung* from 1 September 1939.⁴⁸

The *Arbeitsplatzwechselverordnung* was still considered a reliable source to register employees (Galand 1956: 27). By way of locating both food rationing and registration within labour offices (that is, certificates on the basis of which everyone could receive food ration cards were exclusively issued by the labour offices), labour offices would resume their role post-1945, and, more importantly, their registers for all *Erwerbstätige*, defined as ‘anyone who performs an activity for the purpose of income or salary’ (Galand 1956: 26) would be restocked. This war decree – which also bound employers by way of an application for consent for every prospective employee to be handed in at the labour office – was in place until the 1951

⁴⁸ This decree allowed change of jobs with the consent of labour offices only.

Employment Protection Act (*Kündigungsschutzgesetz*). This re-established the authority of labour offices with regard to ‘labour market movements’ (*Bewegungen am Arbeitsmarkt*) by virtue of the 1954 ‘decree for the implementation of compulsory registration’ (*Verordnung über die Durchführung der Meldepflicht*). Accordingly, the commencement of employment of all employees was notifiable by way of de- or re-registration with the local health insurance, or through notification at the labour office for all other employees. Legally binding and on pain of penalties for employers, the legal foundation was laid to ensure that labour offices would be informed about any change of job. Further, with the 1954 implementing regulations a uniform and binding legal foundation was established for the management of the employees’ registry.

What had been the *Reichsanstalt für Arbeitslosenvermittlung und Arbeitslosenversicherung* in 1927 became a *Bundesanstalt* (Federal Office) by law of 10 March 1952 (cf. Hockerts 1980: 155-160). Long discussions among trade unionists, representatives of state and public bodies about issues of self-governance and the extent to which public bodies were to be incorporated into the overall structure considerably delayed the re-establishment of the federal office (see also Schulz 2005: 120; Maier 2004: 144-150). Schmid, Wiebe et al mention that ‘in spring 1950 new labour statistics were introduced together with an altered occupational classification in order to ameliorate the information situation’ (Schmid, Wiebe et al. 2005: 296). Chapter 4 further examines the re-introduction of the new labour statistics to reveal their particularities. It is also shown that these statistics and the infrastructure that came with them were not particularly ‘new’ with regard to the previous period.

3.4.1. Extensions During the Post-1945 Period: Unemployment for Everyone

Already during the war economies across Europe and the US, policies towards (un-) employment, again, changed their nature. Thence, the politics of ‘full employment’ were less directed to single persons (the workers subjected under a work contract, ILO (1925)), who were supposed to be put under the control and attention of the

placement offices, but rather to economic disequilibria, which needed to be put in balance: the variable ‘unemployment’ adopted a universal dimension. As Comte summarised : ‘La définition international traduit ce changement, glisse du chômage du *travailleur* à celui du *citoyen* : en 1954 le BIT ajoute, aux ‘travailleurs qui...’ de 1925, les non-travailleurs qui cherchent un emploi et n’en trouvent pas’ (Comte 1992a : 91, emphasis in original). In that respect the sixth International Conference of Labour Statisticians in 1947 conducted significant preliminary work recommending a comprehensive statistical system designed to range over ‘all branches of economic activity, all persons (irrespective of whether employed, unemployed), and over all social levels (whether employer, employee, family worker, civil servant etc.)’ (Galland 1956: 180). The 1954 ICLS recommendation was concerned with the mobilisation of the ‘labour force’; everyone willing to work was included into the population (see Besson and Comte 1992a: 10f.).

The ‘right to work’, proclaimed by several constitutional post-war texts on the international level, was considered a collective right (as opposed to an individual right which would oppose the liberal principle of contractual liberty), ‘don’t la politique économique, menée par l’État, doit assurer les conditions générales d’exercice, soit en évitant la depression, soit en assurant une croissance suffisante’ (Besson and Comte 1992b: 152). Concomitantly, the concept of unemployment changed radically, shaping both the politico-administrative actions towards it and the subjective experiences that came with it after 1945. As Comte noted, unemployment, in the light of a ‘right to work’, principally, was not any more ‘une parenthèse dans le travail, pendant laquelle il faut maintenir les droits acquis, mais l’expression d’un droit universel d’accès à l’emploi. Le chômeur n’est plus défini négativement (privé d’emploi), mais positivement (en quête d’emploi) (Comte 1992a : 92).

Reasons for the extended ILO definition of unemployment after 1945 may be found, firstly, in the discovery of a reservoir of ‘labour force’ (most notably ‘inactive’ women who would be recruited to drive the economy replacing men at the front) for the war economies and in the reconstruction period in Europe. An indicator limited to the ‘centre’ (salary workers already employed) was no longer sufficient: the incorporation of the ‘periphery’ (those willing to work) mirrored the new conventions of that period. Consequently, the field to which the notion of

unemployment could be deployed encompassed the entire population capable of work, defined by the criteria of age (minimum for children), availability (being able to take up a job immediately), and aptitude. A second reason was the shift in dominant representations of the labour market, principally in the shape of Keynes' General Theory,⁴⁹ which opened the way epistemologically to a macro-economic formalisation of national economies, depicting unemployment as a collective and involuntary phenomenon. Under the influence of Keynesian conceptions, unemployment is the result of general economic equilibria; unemployment becomes a matter of choice for society, and is part and parcel of a collective responsibility: 'sans abandonner la gestion individuelle des chômeurs (secours, etc.), on entreprend alors une gestion globale du chômage et de l'emploi' (Comte 1992a: 92).

Third, and more practically, obstacles after 1945 to international comparability of measurement of active and inactive populations (behind which stand different social legislation and economic systems) called for an harmonisation of statistical methods and definitions (cf. Galland 1956: 178f.). By 1950, very few countries kept records, for instance, on the composition of the inactive population which did not participate in the economic process (housewives, invalids, pensioners, children etc.). Apart from population statistics, which register births and deaths and all sorts of facts about the person, continuous records existed only for those who were somehow partaking in the social security system of their country (*Arbeitnehmer*). In the German case, self-employed, family workers, family members without a main occupation (children and wives) were systematically under-represented or not even continuously observed. Such was the picture presented to the OEEC Manpower Committee when it set out in 1948 to engage international comparison about work force in member countries. It became apparent that without harmonisation in methods and definitions, there were no common grounds to be expected when talking about the 'employed', 'unemployed' or the 'labour force' in general. Chapter 5.2. takes up this issue and shows how the combination of experiences with less costly and complex representative samplings – developed and

⁴⁹ However, the notion of a 'Keynesian revolution' has been criticised for depending on implausible notions of how economic policy is made (Tomlinson 1991). Further, Suzuki (2003a,b) argues, from an accounting point of view, that the dominating notion of macro-economy and the prevalence of economic management in modern societies are rather to be described as an accounting movement, i.e. the social construction of official economic reality in an accounting framework.

routinised in the US during the 1930s and 1940s (see section 3.4.2 below) – and the desire to develop internationally comparable standards set the ground for the 1952 OEEC council decision which contained clear recommendations how member countries were to undertake labour force sample surveys (including those on the classification of their population of at least 14 years of age), and how to present tabulated results of employed and unemployed persons, as well as of unpaid family workers. This Council recommendation constituted one of the crucial international sources of the StBA *Mikrozensus* to be developed and introduced 1950-1957.

3.4.2. The Idea and Concept of the Representative Sample in the German Post-war Context

In contrast to the Norwegian (Lie 2002), the Russian (Mespoulet 2002), French (Armatte 2003) and the American case (Didier 2009) academic scholars have scarcely studied the invention, circulation and reception of representative techniques and ideas in German contexts. From what has been gathered from the literature, the post-1945 introduction of representativeness into German official statistics (namely with the development of the *Mikrozensus*) is most fruitfully to be analysed as part of the concepts transnational (re-)import with the workings of the US Bureau of the Census as its starting point. (Weischer 2004: 155-158; Esser, Grohmann et al 1989: 54f.). These experiences, mediated through the OEEC, since 1952 fed into the preparation of a representative sample of the German population, introduced as the StBA *Mikrozensus* in 1957 (see Chapter 3.4.3).

Historians of statistics attribute the invention of ‘representative surveys’ usually to the Norwegian Anders Kiaer who presented his ideas at meetings of the International Statistics Institute between 1895 and 1903 (Desrosières 1998: 225f.). Debates on the more detailed formalisation of the method continued between 1925 and 1934 hinged on the choice between the methods of ‘random sampling’ and those known as ‘purposive selection’.⁵⁰ Desrosières (1991a; b) further places the actual

⁵⁰ Statisticians turned historians have produced a vast amount of literature on the history of representativeness (see references in Desrosières 1991a: 242). As Desrosières emphasises, however, ‘each develops satisfactorily the

invention of representativity and random selection in the social contexts of England and Norway in the period 1895-1935 when, parallel to the debates in the International Statistical Institute, as he puts it, ‘the norms presiding over legitimate descriptions of the social world were completely changed – at least with respect to the possibility of *generalizing* observations of a part of it over society as a whole’ (Desrosières 1991b: 212, emphasis in original). Problems of poverty resulting from industrialisation and urbanisation in Britain were particularly conducive to the invention and diffusion of the representative method and of random selection.

Generally, the problematisation of poverty in late nineteenth and early twentieth century Britain was shaped by as well as enabled three simultaneous and mutually intertwined transformations: (i) with the invention of random sampling based on the notion of representativity the ways to describe social world became ‘de-territorialised’ (Desrosières 1988/2008: 148): the nature of error and accuracy changed from exhaustive models to the acceptance of imprecision and margin of error. (ii) The ways to act upon the world of work and poverty shifted from a local context based on direct contact and immediate relief to national systems of social protection (insurances, based on more general criteria of membership based on law and social categories) (iii) the welfare state slowly came into being as a national social society essentially made up of these membership categories and impregnated by the ways such societies were visualised (statistically) as nations. As will be shown in the following section, this machinery, however, would not generalise until the 1920s and 1930s.⁵¹

increasingly precise formal definition of the actual idea of representativeness’, but ‘none [...] studies the history of the requirement of representativeness as such’ (Desrosières 1991a: 242).

⁵¹ Didier (2002; 2009) places the evolution of statistical representativeness within US agricultural statisticians who had been working to select representative groups of farmers able to answer questions about crop production since the 1920s. For him, the idea of a representative sample ‘emerged in a tradition totally unaware of debates at the International Statistics Institute’ (Didier 2002: 443). He shows that models of representative democracies can be used to understand how selection methods were made credible in order to generalise partial data. Here, Didier follows Desrosières, Boltanski and Thévenot for whom the association between (statistical) representativity and (political) representation is not just a word game. Both imply operations sufficiently similar to call for an analysis which helps to shed light on the ‘composition de ces opérations et de la confection d’un lien politique instrumenté statistiquement’ (Thévenot 1994: 7). Accordingly, Didier considers theories of representative democracy (the liberal tradition of J. Locke and the Federalists in particular) a ‘resource’ for statisticians concerned with problems of representative sample. Particularly the nineteenth-century idea of a ‘spokesperson’ being close to the ‘elected’ informed the establishment of the ‘good informant’, a volunteer farmer acting as spokesman for his neighbours during the survey. From 1930 onwards, however, this model of representativeness was increasingly replaced by natural scientific notions, especially with the so-called ‘master sample method’, backed by probabilistic formalism (Didier 2002).

The technique of surveys conducted by representative sampling, re-adopted around 1900 first by Kiaer in Norway, then by Bowley in Great Britain, became first routinised and popularised in the US of the 1930s by an ‘alliance among mathematicians, statisticians, political officials, and journalists’ (Desrosières 1998: 204). This centred upon two events that were to play the part of this founding deed. The case of soaring unemployment convinced political and administrative officials of the merit of this technique, and the votes people would cast convinced the press and public opinion. In both cases – the 1935 unemployment survey and Gallup’s 1936 experimental poll – statisticians of the new generation proposed adding a complementary questionnaire that concerned only five per cent of individuals (Conk 1987; Herbst 2003). According to Desrosières, thanks to this association with the exhaustive survey, these operations ‘allowed essential theoretical and practical questions to be asked and resolved concerning the trustworthiness of the sampling process’ (Desrosières 1998: 206). In both cases the sample surveys were believed to deliver the more accurate results on lower costs and, thus, to help to make the idea of representativeness widely popular, strengthening the arguments of statisticians calling for regular sample surveys of economic and social questions.

The occasion for this came shortly after, with the war economy under President Roosevelt, and the development of the ‘labour force’ concept to measure the total number of persons having a job or looking for one during the week in which the census took place (Durand 1947). The labour force concept was developed during the period 1937 – 1939, when the Works Projects Administration made a number of experiments in estimating, as distinct from actually counting, the unemployed in local labour market surveys (Garraty 1978: 234; Durand 1947: 87f.). These experiments were considered sufficiently persuasive for the results of a survey by sampling to be henceforth used for the Monthly Report on the Labour Force, to be published first in March 1940 under the name of a ‘sample survey of unemployment’, then, in 1942, as a ‘monthly report on the labour force’, and finally, in 1947, as a ‘current survey of the population’ delivering monthly figures on population, employment, unemployment income and other fields (Desrosières 1998: 206). The question as to whether the individual was actively seeking work was made the primary basis for the enumeration of the unemployed. Instead of asking for

gainful occupation at any time, the professional interviewers asked what one had actually been doing during the one-week period covered in each survey. As Durand (1947: 88) summarised this experimental phase, ‘it appeared that the labour force enumeration could be based chiefly on the two activity concepts of working and looking for work’.

As for the post-1945 German case, literature seems to be comparably scarce. According to Weischer (2004), the concept of representative sampling was only hesitantly introduced into the repertoire of official statistics. Comprehensive surveys had been *the* method of collecting data within official statistics for more than 100 years. Indeed, Friedrich Zahn’s⁵² entry on statistics to the *Handwörterbuch der Staatswissenschaften* subsumed representative methods under a section entitled ‘surrogates’, where he discussed ‘mass observation conducted with less exact methods’, such as ‘market surveys, estimates, or enquiries’ which – undertaken in the name of official statistics – ‘discredited’ its reputation (Zahn 1926: 877). Zahn discussed their advantages in contrast to ‘statistical mass observations’ (less costly, faster publication of results, less harassment for population), but identified their weakness in a ‘precarious’ since ‘political’ or ‘arbitrary’ case selection (Zahn 1926: 878). He concluded: ‘Therefore, the typical as well as the representative method are out of question for independent investigations, which should be conducted with the statistical method instead, even though their application seems tempting in times of financial hardship and rapid change’ (Zahn 1926: 878). Weischer claims that by 1940, in a *Festschrift* for Zahn, several contributors grappled with mathematical statistics, as well as with the new opportunities that came to be provided with sample techniques and representativeness, without these reflections, however, bearing any immediate consequences for the practical workings of contemporary official statistics (Weischer 2004: 155).

Weischer’s remarks arguably would need to be further scrutinised with regard to the pre-1945 period. Moreover, the reception and treatment of the concept, in both

⁵² Prof Dr Dr Friedrich Zahn (1869-1946) was professor for Social Policy (*Sozialpolitik*) and Statistics at the Friedrich-Wilhelms-Universität, Berlin 1902-1905, and took up office at the Bavarian StLA in Munich in 1907, (president between 1917 and 1939). In 1926 he became president of the DSStG, and 1931-1936 president of the International Statistical Institute. See <http://www.sammlungen.hu-berlin.de/dokumente/6873/>, accessed 11 February 2011.

its technical and statistical-mathematical dimensions, would need to be differentiated by various statistical branches and professions. Debates during the first DStG annual meeting in 1948 suggest that representative methods were used in economic and agricultural statistics during the Second World War already (DStG 1949: 136). Further, Rudolf Meerwarth (1883-1946), official statistician and lecturer in Berlin who had shown a long-standing concern with deficiencies of Wilhelmine official statistics,⁵³ published an article ‘On the Representative Method’ (*Über die Repräsentative Methode*) in the Prussian Statistical Office’s organ as early as 1934. But it is certainly true that with the defeat of the Third Reich and the re-opening of scientific communities towards foreign developments, the German professional statisticians’ pre-occupation with representative sampling and associated techniques intensified. Weischer’s sketchy observations on the first DStG annual meeting in post-war Germany and its discussion of the representative method can be taken as a starting point for further research (Weischer 2004: 156): Hans Kellerer’s (see Appendix I) presentation of new methods of representative sampling in official statistics with a view on the US example to that same DStG meeting in 1948 has been mentioned already (Kellerer 1949). Activities aimed at a dissemination of these methods and actual training of statisticians, both mathematical and official, within the DStG will be mentioned in Chapter 3.5.5. Weischer further mentions some contestations at the boundary between mathematical and social and economic statistics, centring on issues about the value of this methodical innovation, and on the definition of legitimate statistical practices as well as the defence of established routines and qualifications within social statistics. The lines of conflict were similar to those evoked by Zahn twenty years earlier. The advantages of the sampling method (low costs, quicker results and the possibility of an allegedly exact calculation of sample errors) were opposed to the disadvantages of the regular exhaustive census, which, in turn, was considered to require more immediate knowledge of the terrain under observation. The role of Oskar Anderson and Hans Kellerer, as well as that of Allied control offices in this respect would certainly merit further historical investigation. Chapters 5.2, 6, and 9 varyingly take up issues of

⁵³ See Tooze (2001: 50f.) for biographical notes on Meerwarth.

representativeness as an important component both of post-war labour force sample surveys and the West German labour administration.

3.4.3. *Mikrozensus*: The Statistical Unemployed (*Erwerbslose*) of the Federal Statistical Office

The international sources produced by the ILO and OEEC (see 3.4.1) fed into the preparations for the German *Mikrozensus*, which was introduced in 1957 according to the law on *Repräsentativstatistik der Bevölkerung und des Erwerbslebens* (Esenwein-Rothe 1978: 30, Galland 1956: 182f.). The questions categorised the population, mixing the two concepts of ‘labour force’ and ‘means of subsistence’ (*Unterhaltkonzept* and *Erwerbspersonenkonzept*). In the case of Germany, there is no labour force survey in its own right. By way of a mini-census of one in 100 persons,⁵⁴ the *Mikrozensus* is designed to ask all sorts of questions about the economic and social life of its population. Censuses of the unemployed had been conducted in the context of the general population and professional census since 1871. The *Mikrozensus* for the first time gave numerical information about ‘Activities which serve not as a person’s predominant source of income’ (Koller and Herberger 1960: 236). The *Mikrozensus* went through three different stages since its foundation in 1957 (Herberger 1977a: 37-39).

Between 1957 and 1961, emphasis was on the *Mikrozensus* as a ‘Labour Force Sample Survey’ (*Arbeitskräftestichprobe*) (Herberger 1977a: 37) and on the aim of methodical and organisational consolidation through comparing results of the *Mikrozensus* with other statistical counts, such as the BAVAV labour statistics based on the enumeration of files. In the second phase (1961-1975), the so-called ‘basic programme’ was extended. Between 1962 and 1974, for example, forty new sets of questions (fields of enquiry) were introduced to shed light on social and professional stratification, the extent of night and Sunday shifts etc. (Lefèvre 1999b: 17). In 1968, following the requirements of the Statistical Office of the EEC (EUROSTAT),

⁵⁴ In 1970, for example, this relation resulted in a sample of 230 000 households questioned. For more details on the highly complex characteristics of the survey, see Besson and Comte (1992a: 123-149) with a focus on unemployment.

employed persons were also counted among unemployed persons, who ,merely evince a willingness to work or plan to take up employment' (Esenwein-Rothe 1978: 31). Since then, the *Mikrozensus* has considered *erwerbslos* 'non-activated unemployed' (*nicht aktivierte Arbeitslose*) (Esenwein-Rothe 1978: 31), since they constitute a potential reservoir of labour with regard to 'employed persons: neither proof of active job search, nor some kind of recent employment, nor criteria of the unemployed person's 'availability' for the labour market was taken into account.⁵⁵ After 1975, statisticians envisioned a 'greater flexibility' (*größere Beweglichkeit*) (Herberger 1977a: 38) for the entire census. The basic programme of the *Mikrozensus* was cut down for the benefit of more short-term variables which would be used alternatively in shorter intervals. There was no need to ask all questions annually, while others were asked more frequently in order to picture the social and economic German space. The aim of 'greater flexibility' was, from the early 1970s, to integrate the traditionally separated concepts for the statistical measurement of unemployment (*Erwerbskonzept vs. Arbeitsmarktkonzept*) into an 'overall system' (*Gesamtsystem*) (Herberger 1975; Herberger 1977b). The general idea of the 'Overall System for Employment Statistics' (*Gesamtsystem der Erwerbstätigkeitsstatistik*) was to put together a diverse multiplicity of measurement in one 'uniform overall picture' (*geschlossenes Gesamtbild*) (Herberger 1975). With regard to social and demographic aspects, the *Gesamtsystem* aspired to fit into the 'system of social and demographic statistics' animated by the UN, which, in turn, was supposed to be inscribed into the national statistical authorities' effort 'to organize, improve and expand social, manpower and demographic statistics' (UN 1975: Preface iii).

⁵⁵ As Karr (1977: 351) notes, these wider definitions according to the labour force concept led to a considerable augmentation of unemployed numbers. Thus, the numbers of registered unemployed within the BA decreased from 501.000 in April 1967 to 331.000 in April 1968, whilst the *Mikrozensus* numbers increased for the same period from 288.000 to 402.000.

3.5. Official Statistics in West Germany: Official, Social, and Mathematical Statisticians and Institutional Spaces

For Desrosières, the legitimacy of official statistics up to the present day is strongly based on the authority of both sciences and the state. Accordingly, as old as official statistics has been the question of whether statistical institutes should follow an administrative or rather a scientific agenda. ‘Elle [official statistics, JM] risque toujours de basculer d’un côté ou de l’autre, soit vers des débats sur le statut scientifique de cette statistique, soit vers des analyse de son rôle institutionnel, indépendamment de son contenu, et sans établir de lien entre ces deux dimensions’ (Desrosières 1997/2008: 105-106).⁵⁶ Concomitantly, a broad history of the statistical profession could be written in terms of the slow rapprochement and complex interaction between administrators and scholars as paradigmatic figures. The former emerged with the field of the mid-seventeenth century German *Statistik*, or ‘state-istics’; the latter with late seventeenth-century English natural and political arithmetic. The two differed radically in that the former, administrative by nature, emerged from the sciences of the state, or the *Staatenkunde*. The German *Statistik* was a systematisation of knowledge, concerned with *classifying* facts (taxonomy) for static and comparative analysis of the state, presenting ‘snapshots’ of their power and capabilities. The latter, in contrast, inspired by the natural sciences, was more concerned with past and present changes, with *measuring* (metrology) dynamic processes and causal regularities (Donnelly 1998; Bödeker 2001). The result has been that the statistical profession from the beginning has had a double identity. On the one hand, the French *fonctionnaire*, the English civil servant, or the German *Verwaltungsfachmann* or *Ministerialbürokrat* each administrated various governmental fields governed by law, rules and routines inscribed in the workings of the state. On the other hand, the French scientific *académique*, the English professional or the German *Universitätsstatistiker* disposed of particular methods and expertise (see Desrosières 1998/2008).

⁵⁶ Schneider (2010) with regard to the Prussian Statistical Bureau has convincingly shown how the differentiation into administrative *and* scientific organisation of official statistics effectively developed from 1860 only. Before the appointment of Ernst Engel as head of the *Preußische Statistische Bureau* in 1860, the self-understanding of the office and its practitioners was largely dominated by an administrative logic of ‘gathering facts’.

German official statistics, other than in many other Western countries, have been characterised by a close scientific and personal relationship to statistics as an academic discipline (see Schneider 2010 for an excellent account of the Prussian case). As Desrosières observes, directors of nineteenth-century German bureaus of statistics were often university professors who taught sciences of the state (*Staatswissenschaften*). ‘In these two simultaneous activities, they compiled vast amounts of information on the various aspects of a territory, with the region’s historical, religious, cultural, and economic identity providing a descriptive and explanatory guiding thread’ (Desrosières 1998: 180). The bureaus and their staff inherited and amalgamated three earlier statistical traditions: ‘the political, historical, and geographical descriptions furnished by university professors; the administrative records kept by officials; and the numerical tables established by scholarly amateurs’ (Desrosières 1998: 180). Not only were the double roles of leading statistical staff in diplomacy or in university typical for the German case. Also, the bureaus held close ties with the state administration: their tables were calculated on the basis of data gathered in demography and recorded during other administrative activity.⁵⁷

In the German Reich, Quetelet’s work was mostly interpreted by statisticians, economists and historians (cf. Schäfer 1971: 137-139). His social laws and the idea of the ‘average man’ – expressing, through his regular features (which followed the ‘normal curve’), a reality of a higher order than that of contingent and unpredictable individuals (Hacking 1992) – were stigmatised, especially by the ‘historical school’ within the *Verein für Sozialpolitik*, as mechanistic or individualistic, ‘a product of the arid rationalism of the Enlightenment’ (Desrosières 1998: 187). The philosophical tradition of the ‘historical school’ constituted another current which was to influence the development of the German statistical discipline. As Desrosières emphasises, their ‘methodological debate’ (*Methodenstreit*) was not concerned with statistical and mathematical arguments like those being developed during the same period by the English school of eugenics (MacKenzie 1981). Rather, the issue centred on the methods and the epistemological character of economics, as either supported by general theories based on atomistic individual components, or by historical

⁵⁷ The statistical bureaus were attached to the Ministry of the Interior, a ministry of immediate political administration. Hence they symbolised the power of the state and its administration, unlike in France or England, where statistical offices depended more on ministries of economics.

experience, political institutions, and social interaction. Statistics, in this regard, were often used as ‘a *descriptive method* rather than a method of discerning *laws*. [...] German economists used the abundant data published by official statisticians, who were often close to them both intellectually and politically, to fuel descriptive monographs dealing with precise, localized themes’ (Desrosières 1998: 187-188, emphasis in original). Retrospectively, the German historical school ran out of steam by the beginning of the twentieth century, especially given the radical transformations both in macroeconomical and macrosocial policies, and economics (econometrics) and sociology (quantitative social research based on surveys). Its intellectual legacy, however, did contribute to the development of social statisticians as a particular scientific position in twentieth-century German statistics.

With regard to the twentieth-century, Weischer has identified what is termed a German statistics ‘discourse coalition’ (Weischer 2004: 147) comprising both of institutional structures and practices of official statistics, and the statistician’s self-understanding as a professional identity within universities and statistical offices. Litz and Lipowatz also speak of a ‘scientific community’ (Litz and Lipowatz 1986: 53) comprising economic and social statisticians, mathematical statisticians, statisticians within statistical offices, economic institutions, and social organisations. In this respect, Weischer (2004: 163-170) usefully distinguishes between three ideal types of German statisticians understood as ‘self-definitions’: official statisticians as located on the boundary between sciences and administration; social statisticians essentially concerned with factual logic; and mathematical statisticians considering statistics a universal methodology (*universelle Methodenlehre*). Although Weischer’s ideal types constitute a useful entry point to the heterogeneous professional and disciplinary field of German post-war statistics, they also present historical and analytical problems:

First, the double position that many contemporary statisticians filled between official and academic statistics is not sufficiently grasped. Second, changing statistical practices (including the development of statistical instruments and machines), as well as the expanding fields of their application is not reflected appropriately for the simple reason that such ideal types are anchored to the individuals and their conscious reflections rather than on wider notions, such as

discourse that would additionally account for practices and material things. Third, analysing the self-understanding of official statisticians by drawing on published material only potentially homogenises opinions held by actors or institutions less visible in such terms. For example, Fürst's publishing activities as StBA president (1948-1964) render his perspectives into a primary source for the idealisation of 'the' official statistician. Municipal, *Länder*, let alone labour statisticians, however, did not necessarily share his self-understanding. Fourth, and linked to the previous point, the specificities of both government and labour statisticians in terms of training, education and statistical reasoning are only unsatisfactorily reflected in Weischer's subsumptions.

These methodological problems notwithstanding, Weischer's three ideal types have some utility with reference to the post-1945 period. The professional and disciplinary stance of each will be fleshed out further by drawing on published archival sources.⁵⁸ This will be done against the backdrop of two important institutional spaces, the Federal Statistical Office (StBA) and the German Statistical Society (DStG). Formally, the DStG functions as the organisational structure for the scientific community thus defined. The *Allgemeine Statistische Archiv* (see Rinne 1991, 2010), the *Zeitschrift für Nationalökonomie und Statistik*, as well as the *Statistischen Hefte* were established as the main publishing organs. *Wirtschaft und Statistik* was issued under the auspices of the StBA, containing both methodical reflections and statistical analysis, numerical and text-based.

⁵⁸ The complex relationship between social and economic sciences, empirical research and statistics, will have to be pushed aside here (but see section 3.8 on official statistics and economics as resource for each other, and 3.9 for forecasts as a particular mode of government) Weischer (2004) scrutinises empirical social research in post-war West Germany. Nützenadel (2005) and Hesse (2010) look at post-war economics as science and important sponsor of scientific advice to government. Schäfer (1971) investigates the relationship between Historical National Economy and social statistics. Hesse deplores the fact that he was unable to account for the development of statistics in his study (Hesse 2010: 309). Both economics and statistics came to entertain an intimately close relationship from the 1930s (Porter 2001; Morgan 2003).

3.5.1. The Federal Statistical Office – Organisation and Functioning

As with major labour market institutions, the federal statistical system owes its basic organisational structure and purpose to the system that existed during the German Empire and the Weimar Republic before its absorption into the unified statistical office of the Nazi State in 1934 (Lee and Schneider 2005: 60f.; Hüttner 1972: 9f. for an internal perspective). Contemporary German statistics rely on a negotiated balance between the federation of the *Länder* – which have statistical offices of their own – with the federal parliament playing an important role in controlling the StBA activities (Lefèvre 1999a). In contrast to other national statistical systems, the German system is dependent, since 1949, on *Rechtsnormen* (legal norms), so that any statistical action requires legal justification. Only censuses which are undertaken either on the basis of the voluntary consent of participants or under the auspices of public authorities are exempt from this *Legalisierungsgebot* (legal imperative) (see Litz and Lipowatz 1986). Thus, by a 1953 law regulating federal statistical activity (*Gesetz über die Statistik für Bundeszwecke*), the StBA was hedged around with restrictions. Technocratic initiative was to be contained within the framework of the *Rechtsstaat*. As Tooze highlights, ‘[t]he primary concern in the early 1950s was to draw a clear line between the state and the private economy. Official statistics were to be subordinated to the rules of the social market economy’ (Tooze 2001: 290). This is in contrast to British official statistics, which operate without any particular legal basis, and different from the French, where surveys are simply under the veto of the CNIL (*Conseil National Informatique et Libertés*). Statistical observations by the StBA (and thus also in the case of the StLAÄ) require legal authorisation by both chambers of Parliament. As Desrosières summarises: ‘Face à une proposition d’observation, le statisticien allemand se demande: *est-ce legal?*; le statisticien anglais: *est-ce que ça marche?*; et le français: *est-ce logique?*’ (Desrosières in Besson and Comte 1992a: 35, emphasis in original). As I shall show, this legal restraint would repeatedly frustrate administrative statisticians and labour administrators during the 1960s (Chapters 8 and 9).

The *Statistische Beirat* (StBR, Statistical Advisory Committee) – brought into being through § 4 of the *Gesetz über die Statistik für Bundeszwecke* (Law on Federal

Statistics) from 3 September 1953 – brought together users, interviewees and producers of federal statistics for annual meetings usually aiming at advising the statistical work of the federal office.⁵⁹ Its composition largely reflected that of the statistical committee at *Statistisches Amt des Vereinigten Wirtschaftsgebiets (Statistical Office of the Bizone)*.⁶⁰ Chaired by the president of the federal office, the StBR gathered representatives of economic research institutes, federal ministries, the German Federal Court of Auditors (*Bundesrechnungshof*), the Federal Bank, of the German Federal Railways, and members of the trade unions as well as Heads of the Land statistical offices. The StBR has been considered an important instrument both to coordinate ‘needs and demands of consumers’ and to meet ‘requirements to use limited technical and financial resources in an optimal way’ (Hüttner 1972: 43). Most importantly, the StBR can convene working parties and expert committees for interdisciplinary issues. Litz and Lipowatz, however, consider the council’s opportunities to influence the design of federal statistics relatively weak since financial restraints and administrative necessities within the StBA could always counter-act its recommendations and suggestions. They point out that the interests both of employees and social scientists, other than those of employers, business, industry and trade were only marginally represented in the council, which, in turn, further strengthened its focus on economic statistical issues: generally, social groups which are not defined by ‘relations of labour and production’ have been underrepresented (Litz and Lipowatz 1986: 92).

Particular questions and issues of practical statistical work were usually discussed in meetings with heads of division of the Land statistical offices. The so-called *Amtsleiterkonferenz* (chief officer conference), joined by the heads of division within the federal office, ‘is concerned with current basic questions and important organisational and methodical statistical problem’ (Hüttner 1972: 44). The DStG constitutes a further institutional spaces important to a historical reconstruction of German official statistics.

⁵⁹ See § 5 of the 1953 Statistikgesetz: § 5(1) ‘Das Statistische Bundesamt hört bei der Durchführung seiner Aufgaben in methodischen und technischen Fragen den Beirat oder seine Fachausschüsse und Arbeitskreise [...]. (2) Das Statistische Bundesamt hat die Anregungen und Vorschläge des Beirats zu prüfen und im Rahmen der verwaltungsmäßigen Notwendigkeit und finanziellen Möglichkeiten zu verwerten’, see Bundesgesetzblatt I, page 1314, re-printed in Hüttner (1972: 200-201).

⁶⁰ See Bundestagsdrucksache Nr. 4168 Begründung zum Regierungsentwurf eines Gesetzes über die Statistik für Bundeszwecke, 9 March 1953, re-printed in Hüttner (1972: 205f.).

3.5.2. The German Statistical Society

The DStG was founded in 1911 as a section of the German Sociological Society (*Deutsche Soziologische Gesellschaft*, DSG) at its first Chairman's instigation, Georg von Mayr (see Steger 2010 for an internal perspective). The affiliation with the DSG reflects von Mayr's primary goal to establish statistics as an empirical science of state and society primarily concerned with the systematic collection of countable and measurable results. Statistics and an inductive and descriptive sociology, as Weischer remarked, thus entertained various personnel and epistemological linkages. For example, university-based representatives of social and economic statistics played an important role in statistical training and education of the 'first generation' of empirical social scientists in the German Empire (Weischer 2004: 148).⁶¹

At the time the DStG was founded, labour statistics, as well as the labour administration in general, were in their infancy (see Chapter 3.2 above). No labour statistician was among its first eighty-four members (see Annex 2 in Grohmann, Krämer et al 2010: 227f.). Nevertheless, the vast majority (sixty members) had a background in official and administrative statistics; most were employed in municipal statistical institutes. Thirteen university professors were present. The make up of the DStG members thus mirrored the general functional organisation of the Society: administrative and official statisticians were in the majority; joint activities in academic and official statistics were typical of its leading members, as well as for the contemporary German statistical profession more broadly. Further, the disciplinary interrelation between descriptive statistics, national economy (*Nationalökonomie*) and/or sciences of the state (*Staatswissenschaften*), epitomised by a whole series of early twentieth century German statisticians, was also reflected in the DStG membership structure from the beginning (see Wilke 2010: 24 for examples).⁶² As far as statistical methodologies are concerned, issues of

⁶¹ To mention but the probably most famous example: Ferdinand Tönnies, first president of the DGS and prolific sociologist, was disciple of Ernst Engel (head of the Prussian bureau of statistics 1860-1882 and statistical scholar) and Richard Böckh (head of the Berlin statistical office since 1875 and professor in Berlin from 1881).

⁶² Until the mid-1970s, the DStG's main organ, the *Allgemeine Statistische Archiv*, gave a voice to traditional social and economic statistical issues. Ideas and methods of mathematical statistics (either represented by the 'continental school' (Oskar Anderson) or by Anglophone academic statisticians) were hardly represented until the Second World War and only slowly gained access to the journal afterwards. The main reason was, as Rinne

representative methods, and mathematics and statistics, at the DStG 1922 annual meeting, could only be presented under DStG Chairman von Mayr's open contempt. Business cycle research and prognosis, since the First World War, enjoyed a kindlier reception at the DStG, as not least exemplified by Ernst Wagemann, head of the Berlin Institute for Business-Cycle Research (IfK), professor of business cycle statistics in Berlin, and author of a widely read book (Wagemann 1935). His book, *The Fool's Mirror of Statistics* also introduced the reader to mathematical statistics, albeit hesitantly (see Chapter 5.2.). Wagemann became DStG honorary member in 1941 (cf. Wilke 2010: 22-23).

With the Nazi seizure of power, the DStG under its president and *Führer* Friedrich Zahn was essentially forced into line: all members had to be of German blood. Friedrich Zahn wrote in 1940 that 'the government of our *Führer* and Reichschancellor Adolf Hitler is [...] statistics-friendly'. He described statisticians as 'scientific soldiers' and concluded: 'No wonder. After all, statistics by its nature is close to the national socialist movement [...] German statistics thus, not only became witness of but helped to shape the great events of our time.' (Zahn in Wilke 2010: 33). Various important statisticians within the DStG and in statistical offices and universities emigrated or quit their jobs (Wilke 2010: 26f.).

Under the initiative of Karl Wagner, former president of the Bavarian StLA and re-installed as such in 1947, and Gerhard Fürst (see Appendix I), the DStG was re-established in 1948. During the first post-war annual meeting in September 1948, Hoeber of the Bipartite Control Office in Frankfurt demanded the introduction of representative sampling in industrial reporting. For him, the fairly recent method was a necessary requirement for the implementation of the Marshall-Plan (Strecker and Bassenge-Strecker 2010: 48). Anderson's contribution deplored the university teaching of statistics, and Kellerer reported on new sampling techniques in official statistics with reference to the American experience – an essay returned to in chapter 6. The issue of representative methods would further occupy a new DStG committee

observes, that most DStG members had backgrounds in 'practical', official statistics (cf. Rinne 2010: 82). Methods of representative sampling were mentioned as an exception (Rinne 2010: 81). In this regard, the journal was a forum for a passionate debate between Oskar Anderson and Adolf Blind during the 1953 DStG annual meeting on differences between mathematical methods in statistics (Anderson), and their applied, social issue-related character (Blind). The journal thus offered a scholarly space for such debate as reinforced its essential boundary between mathematical and social statistical methods – cleavages that would only be evened out in 1972, after Gerhard Fürst's term as DStG chairman and co-editor of the journal had come to an end, and Wetzell, university professor in Kiel, was elected president.

‘Sampling Techniques’ (*Stichprobenverfahren*) convened under the chairmanship of Kellerer time in 1949 as a response to the ‘German deficit’ felt by both statistical theoreticians and practitioners. The principal task of the committee was to ‘procure foreign, above all Anglo-Saxon literature, and to promote and help disseminate German literature on representative sampling’ (Strecker and Bassenge-Strecker 2010: 51). For that purpose, several texts were self-published, among them Anderson’s 1929 article on his experiences with the representative method in the Bulgarian agrarian census in 1926 (Anderson 1949). Kellerer’s 1953 introductory textbook emanated from his multi-day, well-frequented courses on representative sampling taught for academic and official statisticians in June 1952 and October 1954 (Kellerer 1953/1963).⁶³ The committee meetings at times were attended by more than 200 participants (Strecker and Bassenge-Strecker 2010: 51). Kellerer’s textbook was re-issued three times before 1963 (see Chapter 3.5.5 for further details). In 1957, the committee was renamed the ‘Committee of New Statistical Methods’ (*Ausschuss für neue statistische Methoden*) – respectfully dubbed the ‘Kellerer-Committee’ (*Kellerer-Ausschuss*) by his disciples (Schaich and Strecker 1976: 199) – reflecting the rapid development of statistical methods beyond representative sampling alone.

3.5.3. Official Statisticians and Official Statistics

These post-war debates among professionals and academic statisticians were crucially marked by the double nature of statistics as both scientific method and administrative tool. Fürst, first StBA president and eminent post-war official statistician, interpreted the relationship between statistics, state and sciences as a slow process of separation of the former two from the latter:

‘As long as ‘statistics’ in the sense of state description was identical with official population and economic statistics, the statistical practitioner himself developed the scientific methods. Only when statistical methods were applied to stochastic processes beyond social and economic sciences did it become possible that statistics as a science assumed an existence independent form the methods of counting and measuring, thus moving increasingly closer to mathematics’ (Fürst 1963: 220).

⁶³ Other speakers on these seminars included Siegfried Koller and Heinrich Strecker, one of Anderson’s disciples (see Strecker and Bassenge-Strecker 2010: 51).

The schism in contemporary German statistics, was understood by some as a consequence of such a close union between natural sciences, mathematics and statistical methods against the coalition between practical statistics and the state administration. ‘This brought about [a situation in which] many ‘statisticians [...] generally only regarded such mathematical-statistical problems of methods [...] as statistics, whereas for the official demographic, economic, and social statistician the question of ‘what’ is going to be measured [...] still prevails’ (Fürst 1963: 220). Following this division of labour between official and practical, and mathematical statisticians, the former considered their activities broadly as of an applied nature, occupied with the procurement of ‘empirical’ basic material for the latter, which, in turn, was rather concerned with ‘theory’ and methodical issues (cf. Weischer 2004: 165).

As Litz and Lipowatz emphasise, the StBA, as understood by its personnel was not considered an institution of empirical scientific research. Such understanding would have meant the pursuit of statistics as an expansive, open-ended and explorative scientific enterprise. The demand both for objectivity and ‘administrative correctness’ (*Anspruch auf administrative Korrektheit*, Litz and Lipowatz 1986: 120) in statistical analysis counteracted such more scientific goals. Publication policies on whether or not the author should be mentioned in StBA journals serve as a good illustration for the ways in which such objectivity came to be interpreted, or, vice versa, how authority was attached to public figures. Litz and Lipowatz (1986: 120) interpret the absence of the author’s name in the StBA in-house publication *Wirtschaft und Statistik* – unless the essays treated fundamental topics – as a suppression of the author-statistician as scientist and an adherence to ‘administrative correctness’ (*administrative Korrektheit*) assumed by the StBA as a state institution.⁶⁴ Such observations underscore the remarks above on objectivity. As socio-scientific ideal, objectivity since the late nineteenth century came to be defined mainly by the absence of the subject as author or researcher. In the present case,

⁶⁴ For Tooze, the transition from author’s to institutional names was a by-product of the revolutions in 1830 and 1848 (Tooze 2004: 328-329). He notes with regard to the Prussian Statistical Office that before the revolutions, the authority of the chief statisticians was considered sufficient to vouch for the authenticity of the figures. Afterwards, the personality of the chief statistician slowly vanished behind the official emblem of the Statistical Office. ‘The state appeared as author’, as he summarises this development (Tooze 2004: 329).

objectivity as a scientific-administrative ideal gave name to the suppressions of an analytical, problem-oriented statistical reasoning in favour of a rather bureaucratic, functional interpretation behind which the statistical activity of the author tended to disappear. Budget restraints and the preference to publish continuous statistical time series further contributed to repressing more experimental statistical activities in German official statistics. Pfeuffer and Schultheis (2002) illustrate this issue in comparison with French official statistics. The legalism that characterises post-war German official statistical activity up to the present day foreclosed more profound independent analysis beyond numerical descriptions of the social world. The StBA, in contrast to the INSEE 'n'accumule [...] aucune savoir sur la validation des outils qu'il utilise, ce savoir méthodologique et théorique, tant statistique qu'économique se trouve du côté des universitaires' (Pfeuffer and Schultheis 2002: 27). StBA civil servants were almost exclusively recruited among jurists, economists and mathematicians to the effect that the theoretical or methodological reflections so pronouncedly developed by some professional circles within the official statistics in France is virtually absent from the German official statistical landscape. Thus, where the French homologues have a pertinent sociological perspective built in the respective statistical constructions and artefacts, 'legalism' and methodical realism confines German official statisticians to rather descriptive and number-based studies.

Against this backdrop, official statistical activity, especially under Fürst's presidency (1949-1964), was defined as a 'control function, which was supposed to not only enable the state to quantitatively understand its own activities, but also to subject this very activity to parliamentary control and to control by every single citizen' (Litz and Lipowatz 1986: 121). Given this double control function of statistical data, the notions of objectivity and neutrality gain their importance as the main guiding principles of the official statistician's work and self-understanding. Data could only exert a control function if producers were institutionally, legally and ideologically apart from those controlled, 'neutral' with regard to the state executive. Fürst's early elaborations on the task and organisation of post-war German official statistics likened statistics to a 'compass' suggesting a mere instrumental function, 'no matter if state politics are dedicated to liberal or social market economy, to planning or rigorous regulation of business' (Fürst 1949: 435). Obviously, such

statements are an essential part of statistical rhetoric, which have been identified for other statistical institutions alike (see Hilts 1978 for the Royal Statistical Society).⁶⁵ Organisationally and legally, the StBA was part and parcel of the state executive (subordinate to the Ministry of the Interior), with the effect that the autonomy for the statistical work – as a necessary precondition for the alleged neutrality – was granted neither legally nor organisationally (see Chapter 3.5.1).

The alleged objectivity of statistical data also guided the StBA leading personnel's intellectual attitude towards economic and labour forecasts as both became increasingly central to economic policy and planning since the early 1960s. Any prognoses based on economic statistics were rejected on the basis of human and hence political volition, which allegedly informed their fabrication (Litz and Lipowatz 1986: 121). As Litz and Lipowatz (1986: 121-2) remark, however, Fürst's guiding principles in this case were rather inconsistently applied, since population forecasts, which were already undertaken by the Reich statistical office on indications on employment and profession, were not considered to fall under this general ban. Section 3.8 shows that official statisticians took rather lightly the objective of statistical neutrality with regard to economic institutions. As I show in Chapter 7, the official statistical rhetoric of impersonality and freedom from theory guided the discussions on employment forecasts as suggested by the OECD and other circles inclined to the economic planning spirit of the time.

At the same time, however, a simple functional distinction between official statistics and empirical social research would be historically distorting since it would obscure the various interrelations that existed between both in terms of personnel, methodical and practical exchange. Weischer notes the family resemblances between official statistical and scientific activities more broadly. Both were concerned with the collection of data starting from a (research) question. Both described social and economic worlds by abstract categories or facts. Both activities held dear notions of neutrality and objectivity; results were published in reports or scientific treatises

⁶⁵ Hilts (1978) offers a compelling analysis of '*aliis exterendum*', a phrase that appeared in the emblem of the Statistical Society of London in 1834, meaning 'to be threshed out by others'. Anybody apart from the statisticians should thresh out, extract conclusions, while they professed to abstain from opinions or conjectures, limiting their role to that of collecting data and interpreting it. As Hilts asserts with regard to *aliis exterendum*: 'at one blow, the phrase deflected accusations that the Statistical Society was excessively political, it satisfied the previous ideas about the nature of statistics developed by the political economists, and it suggested an objectivity worthy of science' (Hilts 1978: 43). Further, by promoting *aliis exterendum*, the Society also promoted 'an intellectual attitude hostile to all theoretical advance' (Hilts 1978: 42).

(Weischer 2004: 165). These observations could easily be amended by more general remarks on the interrelations between administrative, scientific, and statistical practices (see Bonß 1982; Héran 1984 and Poovey 1998 for more general histories on the mutually constitutive fundament of social sciences and statistics).

The dynamic evolution of academic and empirical social and economic research during the twentieth century further complicates the landscape within which official statistics were located. Mathematical statistics, in this regard, soon became one of the various contenders to the official statistical profession. For instance, the classical schism between official statisticians as providers of empirical basic data, and social and economic sciences as their users for theoretical purposes, was further challenged with the ascent of both survey research and polling (Herbst 2003), and forecasts of different kinds in West Germany and the Western World more broadly (Schmidt-Gernig 2003; Seefried 2010). Both trends – often resorting to representative sampling (see Chapter 3.4.2) – increasingly became established as solid competitors for official statistics and their self-understanding as the sole provider of empirical data ‘to be threshed out by others’ (see section 3.9 for a discussion of forecasts as a mode of government).

3.5.4. Social and Economic Statisticians in Post-war Germany: The ‘Frankfurt School’

The scientific position of social statisticians in the 1950s and 1960s was crucially marked by von Mayr, who in 1914 announced his substantialist credo that statistics was a ‘science of the social masses’ (von Mayr quoted in Weischer 2004: 166). Concomitantly, throughout his scholarly and professional life (his DStG presidency included) von Mayr emphasised the state science character of statistics and remained sceptical about the application of mathematical statistics for the purpose of social research (*Gesellschaftswissenschaften*). In this vein, Paul Flaskämper laid the foundation of the ‘Frankfurt School’ in social statistics with a contribution to the 1927 DStG annual meeting (Wilke 2010: 23). In post-war West Germany, Adolf Blind (see Appendix I) and Heinrich Hartwig were, next to Flaskämper, the most

prominent representatives of the ‘Frankfurt School’. All held chairs in social and economic statistics and wrote widely-read textbooks (cf. Weischer 2004: 167; Litz and Lipowatz 1986: 52). Others, such as Ingeborg Esenwein-Rothe, Rolf Wagenführ⁶⁶ and Charlotte Lorenz were trained in social and economic statistics and contributed in various ways to the field (Weischer 2004: 168). For Rinne the programme of the ‘Frankfurt School’ was characterised by the ‘primacy of factual issues for the development and application of statistical methods, a parallelism of material and numerical logic, and the problem of adequation’ (Rinne 1991: 35).

The problem of adequation describes the discrepancy between the logic of social facts and the quantitative character of statistical methods (Litz 1990). The parallelism between factual and numerical logic – claimed by Flaskämper in a 1933 article on ‘the significance of the number for social sciences’ – pointed to the logical differences between the mathematical and stochastic characteristics of indicators, and the quantification of originally organic social facts. Flaskämper did not reject axiomatic mathematical methods to measure statistical facts, but demanded a selection of axioms by factual logic (Klein 2004: 10). Flaskämper in 1936 summarised his stance towards mathematical statistics as follows: ‘We will take [mathematical statistics, JM] only as far as it can be reasonably applied within social research’ (Flaskämper in Weischer 2004: 159).

The point of departure for Frankfurt statisticians were problems detected within other substantive disciplines (*Substanzwissenschaften*), such as demography or economics. Proceeding ‘from the matter’ urged them to introduce both scientific and statistical notions into a statistical method, hence their concern for ‘adequation’ and the emphasis on the differences between a numerical and factual logic as problems of operationalisation. Their epistemological anchor in ‘substantive’ disciplines led to questions often foreign to the nature of statistics as a formal science (Klein 2004: 9). As I show in Chapters 5.2., 6 and 7, the concern for ‘what’ was measured and the primacy of factual logical notions over ‘abstract’ and mathematical calculations preoccupied the minds of labour administrators and applied statisticians alike. The demarcation from mathematical and methodical statistics, however, was not always as sharp as the differentiation in different schools, paradigms or

⁶⁶ See Tooze (2001: 284f.) for details of his remarkable career as major statistician before, during and after the Nazi reign.

individual biographies suggests. After all, Flaskämper as eminent member of the Frankfurt school accused von Mayr, the epigone of German social descriptive statistics, of being responsible for a general methodical scepticism within German statistics (Klein 2004: 9).

German post-war social and economic statisticians soon saw themselves marginalised due to a two-fold development. For one, from within the statistical disciplines, the adaptation and development of mathematical methods gained momentum after 1945, when various sub-disciplines gathered under the realisation of backwardness with regard to Anglophone developments (see section 2.3.2). For another, and since the 1920s, economic sciences' curricula increasingly incorporated academic social and economic statistics. As Hesse notes, statistics next to business administration (*Betriebswirtschaftslehre*) was an obligatory element of the earliest university examination regulations in economic sciences (*Volkswirtschaftslehre*) in the Weimar period (Hesse 2010: 88). The question of which status to grant economic statistics within *Volkswirtschaftslehre* would develop into a full-fledged quarrel between mathematical and historical economists in the after-war period. Despite all differences, a compulsory basic statistical formation became firmly established within the curricula, further marginalising social statisticians (Hesse 2010: 91f.).

3.5.5. The Mathematical Statisticians

Before the mid-1970s, mathematical statistics developed within probability research and mathematics only played a minor role within the DStG. The main reasons were a strong link between official and academic statistics for most of its members, and the embeddedness of much of the statistical discipline in other substantive disciplines such as economics, demography or sociology. During the Nazi period, the situation was hardly any better. In the monumental two-volume *Festschrift* for Zahn edited by Burgdörfer in 1940, only Flaskämper's (1940) and Riebesell's (1940) essays were concerned with mathematical statistical methods. After the Second World War, however, the German 'special path' in disciplinary statistics slowly recognised international developments. Various initiatives transformed the niche existence of

mathematical methods in statistics. The workings, since 1949, of the DStG committee on ‘sampling methods’ under the chairmanship of Kellerer, head of department at the StLA Bavaria, later professor in Berlin and Munich, have been mentioned (see sections 3.4.2 and 3.5.5). The DStG initiated the ‘Bulletin for Mathematical Statistics’ (*Mitteilungsblatt für mathematische Statistik*) in 1948, in the wake of the realisation, as Strecker and Bassenge-Strecker suggest, ‘that mathematical statistical methods, as already cultivated abroad, would increasingly gain in importance’, (Strecker and Bassenge-Strecker 2010: 54).⁶⁷

Oskar Anderson was probably the most eminent mathematical statistician in post-war West Germany. Familiar with both mathematical statistics and sample survey theory through his teacher Tschuprow, Anderson published an introductory textbook on mathematical statistics in 1935 (Anderson 1935). His 1954 textbook *Problems of Statistical Methodology*, was re-issued four times (Anderson 1954/1965). He strongly opposed von Mayr and Zahn’s attempt to bring statistics as a social scientific discipline (*Gesellschaftswissenschaften*) in line with state sciences (*Staatswissenschaften*). For Anderson, von Mayr’s attempt ‘uncoupled’ German statistics ‘from the general development by over decades’ (Anderson 1954/1965: 8). Anderson suggested the notion of a ‘theoretical statistics’ in the style of the Anglophone statistical discussions, a distinction which he hoped would cut across the battle among German statisticians between elementary or non-mathematical and mathematical statistics. Anderson considered ‘theoretical statistics’ a ‘particular discipline which was anything but a social science any more’. It was to be established by ‘proper mathematicians’ and was meant to ‘set up a science about the appropriate treatment of mass phenomena, statistical totalities, aggregates or collectives, and especially about the issue of which conclusions can and may be drawn from the ‘statistical shadows’ of mass phenomena about causal relationships within them’ (Anderson 1954/1965: 17). Next to theoretical statistics, Anderson envisioned particular sub-disciplines, especially social statistics (*sozialwissenschaftliche Statistik*), which were to apply the results of elementary statistical theory. At the same time, the sub-disciplines were distinct in that Anderson defined objects of the social world as of an essentially different nature. Interestingly,

⁶⁷ The gazette merged with the Vienna-based *Statistische Vierteljahresschrift* in 1958 to become *Metrika*.

he reserved a certain essential difference for the social world and its scientific investigation in that he rejected the mere transfer and application of modern mathematical statistics – mainly developed within natural sciences – to social sciences.

Sagoroff considers Anderson's experiences in representative samples gathered in Russian and Bulgarian official statistics during the 1920s and 1930s as central to the implementation of the method in Bavaria (Sagoroff 1960: 94). As noted, the German experience with representative sampling has not yet been the object of scholarly treatment. It has been noted, however, that Anderson, after his move to the University of Munich in 1947, collaborated with the Bavarian StLA and Hans Kellerer, who was head of the department 'Statistical Theory and Technique' there until 1953, on mathematical methods and representative sampling. Anderson defended mathematical statistics as an academic discipline proper against both the descriptive German tradition in statistics associated with the names of von Mayr and Zahn, and the ignorance of economists and empirical social researchers towards its methods and theories (see Hesse 2010: 92). In 1953 the DStG 'Committee on Training Issues' (*Ausschuss für Ausbildungsfragen*) set up the *Heidelberger Programm* demanding proficient knowledge both in statistical methods and in 'material' statistics (Strecker and Bassenge-Strecker 2010: 50). As Strecker and Bassenge-Strecker note, in the course of a general increase in chairs in statistics at West German universities from the early 1950s, classical statistical formations in applied demographic, economic or social statistics were slowly replaced by a methodical training based on probability and representative theories. The basic mathematical skills required were provided by professors in statistics; by 1961 almost half of these were trained in mathematics (Strecker and Bassenge-Strecker 2010: 44).

3.6. On Statistical Machines and (Non-)Punched File Cards

Next to the materiality of administrative practices, a cultural history and geography of administration also focuses on the technological equipment of administrative offices (Becker 2003: 312-317; 2011: 28f.). Most importantly, the focus merely on the invention and dissemination of technology forecloses the wider perspective on their application within administration or private firms, and the change of practices and social organisation that they may imply. The workings of an administration or a statistical office can only be understood appropriately if technologies as part of the material basis of administrative action are analysed in connection with other factors, such as the education and training, career paths and thought patterns of administrators and engineers. Here I have turned to the biographies of relevant actors for this reason (see Appendix I).

Max Weber in particular deployed the machine as metaphor to describe public and private administration at the turn of the last century, so re-affirming a longer tradition within social and political thought (Schmid 1988; Dreier 1991: 36f.). By contrast, he devoted relatively little scholarly attention to the role and effects of machines and technology *within* state administrations – most certainly due to the fact that office machines, especially those for statistical use, were in their infancy during his time of writing. Desrosières (1998; 2008a; b), despite the breadth of his studies and the broad definition of the statistical production he assumes, likewise pays little attention to technical points.⁶⁸

Some historians of technology, however, have assessed machine technology in connection with statistics. This work, however, rarely reaches beyond the Second World War. Agar (2003) with respect to nineteenth- and twentieth-century Britain proposes a history of statistics and government as one of mechanisation. He argues – in line with a cultural history of administration as proposed by Becker (2003) – that

⁶⁸ Part of the reason for the relative paucity of scholarly studies on the history of (early) office technology might be that the archival material to pursue such work, the machines themselves at least, are usually not stored in classical archives, the common working space of historians, but in museums. Accordingly, historians are not always the most suitable community to undertake such studies. This broad view becomes all the more pertinent since two of the works under review here were written by curators of engineering and automation at national museums (Lubar 1992; Petzold 1992). IBM technology is exhibited in the 'House of the History of IBM Data Processing' in Sindelfingen/Germany. Joyce (2010) mentions the Early Office Museum for an online archive/museum with plenty of information on machines and technology, although with a very strong US emphasis. Available at www.earlyofficemuseum.com, accessed 30 September 2011.

the apotheosis of the civil servant could be found in the computer. He particularly focuses on expert movements that promoted machines for the purpose of government. Although neither his historical nor his geographical focus suit this thesis well, his attempt to bridge two areas of scholarly interest – historians of state administration and of science and technology – constitutes an important inspiration and starting point for the purpose of this study. Heide's work on punch card equipment is suggestive for the pre-1945 period (Heide 2008; 2009). Work published under the auspices of museums give excellent accounts of the technological side of statistical productions and go beyond the Second World War (Campbell-Kelly 1990; Petzold 1992). Petzold's study addresses the technical objects and the engineering discourses in which they were embedded before 1960, when emerging chip technology epitomised a radically different way to provide the hardware necessary for calculations (Petzold 1992: 168-173; 221-289). Statistical textbooks often mention the technological, machine-based side of statistical work, and, for some explain its content (e.g. Kellerer 1960; Hüttner 1972: 32f.).

The history of 'punched humans and things' (Petzold 1992: 117) is one closely linked to the history of *International Business Machines* (IBM) and its eminent engineer Hermann Hollerith (Campbell-Kelly 1990; Petzold 1992: 117f; Heide 2008; 2009). Hollerith invented the original punched card system and built the related devices which were first applied to process the completed forms in the US 1890 population census. The system consisted of the punch card and two simple technical devices, a punch and a tabulator, operated by hand. The technology changed over the decades, but Heide's definition is sufficiently broad to explain the basic functioning:

'Punch card facilitated storing information through combinations of holes in individual cards that various machines processed. Each job required the punched cards to be handled in a predetermined order [...]. The cards were punched on a key punch and the perforation verified by use of a separate device. Afterwards, a sorter arranged the cards in a specific order before their subsequent tabulation. The tabulator was a combined calculating machine and printer that performed the additions – and, in advanced versions, the subtractions – needed to figure the total amount due before printing the invoice' (Heide 2009: 5).

For Heide, the punch card system only became attractive to European countries during the 1910s as a means to mechanise public and private office work – despite

Hollerith's early promotion tours through Europe – when business organisations were established in Europe to attend to maintenance (the German IBM branch *Dehomag* was founded in 1910), and the technology itself was improved to a level that could impress European bureaucracies (Heide 2008). In 1910, some provinces of the German Empire started to conduct population censuses by the help of punched card machines; social and health insurance agencies were among the early clients. By 1924, the Reich Railways (*Reichsbahn*) maintained the largest Hollerith installation of the Republic for both traffic statistics and bookkeeping purposes (Petzold 1992: 120f.).

The Nazi period has attracted a particular rich scholarship on punch card machines and mechanisation more broadly. Tooze's (2001, especially 255-259) important study on German economic statistics records machine equipment in relation to the 'fantasies and realities of total knowledge during the Nazi period'. According to him, Hollerith processing started in the military but was not adopted seriously until 1937. In 1941, a standardised, national numbering system was proposed that would make the entire economy 'machine-readable' (Tooze 2001: 256). Only with the military crisis in 1941 was mechanisation given real urgency, of which the establishment of a Mechanical Reporting System (*Maschinelles Berichtswesen, MB*), a multi-departmental and regionally differentiated administrative unit within Speer's armament ministry was the most visible consequence (see also Petzold 1992: 153-159; Schneider 2002: 414f.). The most important activity of this organisation was the project to create a numbering system for the entire workforce, and ultimately the entire population, of the Third Reich. It involved coordinating the registers of the personnel offices of local businesses, the local population register, the registers of local hospitals and the local police. Crucially, this required machines to handle employment returns from roughly 80 000 businesses. In contrast to Aly and Roth's (1984/2004) claims of a smooth transfer and processing of information, both Tooze and Petzold point out the failure of the reporting system by 1944 and refer its motivation rather to the 'aesthetics of total control' (Tooze 2001: 257) held by some of the leading technicians (see also Petzold 1992: 157f.): Industrial organisations were suspicious of ceding control over their own statistics, and without the cooperation and adequate advice from businesses,

military technicians were at a loss. ‘A decentralized, mechanized system looked attractive on paper’, as Tooze summarised. ‘But, as the experience with the MB demonstrated, mechanical efficiency did not guarantee that the results were useful’ (Tooze 2001: 258).⁶⁹

All levels of the West German state administration during the 1950s, other than private businesses, were cautious over the incorporation of punch card procedures into their activities. As Kaiser reports, by 1957 only twenty six of 564 West German towns with more than 10 000 inhabitants actually deployed punch-card machines (Kaiser 2009: 237). By contrast, 3000 large and medium sized businesses worked with punch-card machines in 1958, notwithstanding several central data centres rented out to businesses by the punch-card manufacturers for the purpose of wage accounting (Petzold 1992: 251f.). The German Federal Railways during the 1950s used the system most comprehensively (Czech 1955).

The German experience was rather minor in comparison with the USA. In the US, parts of the financial administration were mechanised as early as 1934; the Social Security Administration in Baltimore operated 850 punch card machines and electronic calculators to operate roughly 80 million cases (Förster 1955; Norberg 1990). Further, the punch card itself came to represent the threat of bureaucratisation during the 1950s and 1960s since it, as the materialised interface between the public, the state and business administration, stood for the de-personalisation of information (Lubar 1992). The slow dissemination of punch cards in public offices was partly due to the fact that despite several technical advancements which mostly accelerated the procedure, the preparation of the punching itself essentially remained

⁶⁹ With regard to official censuses, there is considerable scholarly debate as to how crucial IBM’s information technology was for the Nazi government to collate statistics on the whereabouts of Jews and others as a prerequisite for their automated destruction. Especially Black’s (2001) book made compelling claims that the statistical knowledge of the population – generated through census in the 1930s – was mainly gathered through the help of Hollerith machines installed by IBM’s subsidiary in Germany, Dehomag. Neither the role of punch card machines for the Holocaust, nor the subsequent scholarly debate is of particular interest to the present context (but see Allen 2002 for excellent critique of Black’s study; Heide 2004). What is of interest here, however, are Allen’s (2002) remarks of caution with regard to the prevalence of statistical machines for the purposes of individual identification. Following Allen, there were many non-IBM punched-card systems, and some punched cards were not even intended for mechanical tabulation. The author mentions the Reich Compulsory Registration Decree of January 1938 as a case in point (Allen 2002: 152). The Nazi authorities had to systematically combine and cross check the census data with existing registries of personal information, such as land registers, the records of local government, police and church, and the labour identification card – all of which were not machine readable. For the purpose to generate state knowledge of the names and addresses of individual Jews aggregate censal data, as Allen notes, would have been inadequate anyway. This required a registertype of information (see also Kistermann 1997; Wietog 2001 and Schneider 2002: 415).

a manual work. The introduction of electronics into punch-card machines was, as Campbell-Kelly terms it ‘evolutionary not revolutionary’: ‘the functional characteristics remained unchanged and the new technology merely enhanced the speed and reliability of the machines’ (Campbell-Kelly 1990: 150). At the same time, IBM’s announcement of a new era of punched card technology as early as 1950 symbolised through the metaphor of ‘electronic brains’ might have had the effect that any organisation considered a new establishment of conventional, non-electronic punch card equipment – in the light of these rumours – a provisional solution at best (cf. Petzold 1992: 171f.). Importantly, however, the procedure generally was not suitable for every administrative activity. Punch card equipment was at the core of much of the businesses’ bookkeeping and the financial administration of the state (e.g. tax offices) by the end of the 1950s, but was absent, for example, from the labour administration (see Chapter 4.4).

As with other fields of societal development, the US experience was taken as the example that would set the standards for mechanisation in Germany: much of the technology – in the form of IBM machines – was produced in the US or through IBM branches in West Germany. One of the first initiatives of the German Research Association (DFG) after the Second World War established research clusters in applied mathematics and electronics, which could count on Marshall Plan money (Petzold 1992: 236). Representatives of the German Parliament, for instance, went on a study trip to the US in October 1955 to convince themselves of the mechanics of book-keeping in the field of taxation (Schmidt-Schmiedebach 1955: 15f.).⁷⁰

Non-punched cards have attracted far less scholarly attention than the punched ones, exceptions being Yates’ (1982) analytical account of filing systems in early twentieth century American business and Joyce’s (2010) text on the file as a political

⁷⁰ In addition to the focus on statistical machines (and office technology more broadly), historical scholarship on offices has varyingly emphasised the role of the administrative gender division of labour and the complexities of ‘doing’ (and ‘undoing’; Butler 2004) gender. This issue can only be granted limited attention in the course of this thesis. Its importance is imminently graspable since administrative statistical practice usually depended on the concerted mobilisation of thousands of personnel the majority of whom were female employees on lower ranks. They were usually designed to do the mundane work of tabulating, tallying, card punching, or signing. Historical analysis of the reasons and conditions for such gendered division of labour arguably would need to go back to the emergence of white-collar work in the late nineteenth century and examine the critical social, cultural and economic changes that affected women’s work and labour market situations, women’s class positions, and their political mobilisation (e.g. Adams 1988 for Wilhelmine Germany and contributions to Anderson 1988), as well as the gendered organisation of bureaucracy (e.g. Witz and Savage 1992).

technology of Imperial Britain. In line with the argument followed here – looking at the power of the state by analysing scientific and technological forms of knowledge and practice involved in it – Joyce considers ‘the file is the central unit by which information is assembled and knowledge produced, knowledge that enabled the institution to know and control itself as well as that which it governed’ (Joyce 2010: 111). The focus on ‘material powers’ such as the files draws attention to the spatial organisation of documents, the physical nature of writing, and in particular to paper, pens and other means of communication that were used (see Chapters 4 and 6).

3.7. The OEEC/OECD – Sponsor of Social and Economic Measurement and Hub for Manpower Policies

The OEEC/OECD as a ‘talking shop’ (Clark 2001: 710) or a forum for transnational governance has recently attracted considerable scholarly interest, especially from fields such as politics, political economy and international relations (Mahone and McBride 2008; Woodward 2009; Martens and Jakobi 2010; Trondal, Marcussen et al. 2010; Carrol and Kellow 2011). Most of this work, however, has been written without reference to archival material. From a historical point of view, the OEEC/OECD remains underexplored with the result that little is known of its personnel, its internal debates or the relations entertained with other international organisations and member countries. This is even more evident for the OECD’s predecessor, the Organisation for European Economic Co-operation (OEEC; 1948-1961). Apart from an OECD in-house publication (Griffiths 1997), and Bühner’s study on West Germany’s incorporation into the OEEC between 1947 and 1961 (Bühner 1997), the OEEC has not been the object of scholarly treatment yet. Wolfe’s historical overview, for instance, grants little attention to the OEEC years (Wolfe 2009). With regard to the post-1945 period, the OEEC/OECD, arguably, can be considered an important space (as the UN and the ILO) within which international statistical activities slowly became institutionalised (Ventresca 2002).⁷¹ This section

⁷¹ To a certain extent, these international institutions developed parallel to and adopted partly the functions of an older ‘statistical internationalism’ in place since the 1850s. Brian notes that during the second half of the nineteenth century, the level of international scientific transaction increased when the European nation-states

introduces the OEEC and its successor, the OECD with particular attention to its statistical activities. The OECD's organisation and functioning are considered, as well as so-called active manpower policies disseminated under the OECD umbrella from the early 1960s.

The OEEC as a network of officials and organisational structure developed directly from the urgencies of European recovery from 1947. During a July 1947 conference on an economic recovery plan for transmission to Marshall, the US Secretary of State, the Committee of European Economic Co-operation (CEEC) was created. This committee pondered the development of a permanent organisation to administrate the Marshall Plan. As a consequence, in April 1948, representatives of sixteen member states of the CEEC plus the Commanders of the French, and joint British and American zones of Occupation in Germany signed a Convention establishing the OEEC (Woodward 2009: 14f.). West Germany assumed membership in autumn 1949 – its first in an international organisation after the Second World War (Bührer 1997: 2).

The performance of the OEEC has mostly been described in terms of 'astounding levels of cooperation' among its member countries, and 'its role in repairing Europe's faltering trade and payments system' (Woodward 2009: 15). Whilst the responsibility for allocating aid was transferred to the Economic Corporation Administration in 1951 in the wake of divisions between European countries over funds, a considerable rise of intra-OEEC trade between 1948 and 1956 was linked to two OEEC inspired initiatives, the European Payment Union and the Code of Liberalization of Trade, both ratified in 1950 (Woodward 2009: 15).

Various scholars have highlighted the role of the OEEC in disseminating a system of standardised national accounts (Tomlinson 1991; Nützenadel 2005: 101-103; and various contributions in Voy 2009; Tooze 1998). For Tooze, the fact that the OEEC statistical unit then was based in the Applied Economics Department of Cambridge University is one of the reasons that the Standardized National

became more clearly defined (Brian 2002). Statisticians, in particular, have shaped since then a stable body of administrative and scientific knowledge and facilitated the building of a specialized network that met in international congresses. Gagnon notes that the success of such 'statistical internationalism' in the late nineteenth century is not only visible in the creation of the International Institute of Statistics in 1885, but also in the connections successfully established with international committees and associations of other scientific disciplines, notably actuarial sciences, demography, anthropometry, hygiene, and the international labour union movements pushing for international labour standards (Gagnon 2000).

Accounting scheme published by the OEEC in 1952 followed the Anglo-American model (Tooze 1998: 223). OEEC initiatives have also been mentioned in connection with the employment service organisation. Especially the 1954 OEEC ‘Council recommendation concerning standards of employment service organisations’ is considered instrumental in the attempt to balance manpower across member countries on the basis of free movement (Schmid, Wiebe et al. 2005: 300).⁷² Mainly due to the parallel development of the European Economic Community, the OEEC from 1958 onwards was considerably weakened. In the wake of ongoing Anglo-French frictions, the OEEC Council was dissolved in December 1958 and would never meet again until the re-foundation of the OECD in 1961 (Woodward 2009: 17-8). The OECD went on to develop and refine techniques for surveillance of member country economic performance and assessment of their policies across a growing range of fields. The organisation did not possess budgetary or sanctioning powers. Unlike the ILO, whose conventions have to be submitted to parliaments, governments can choose to ignore OECD recommendations.

Article 3 of its convention contains a commitment by member states ‘to furnish the Organisation with the information necessary for the accomplishment of its tasks’ (cited in Mahon and McBride 2008b: 8). This commitment, as Mahone and McBride continue, ‘formed the basis for the routine collection of statistics from member countries [...], and their assembly into regular reports such as the Economic Outlook’ (Mahon and McBride 2008b: 8). These seemingly mundane activities led Porter to consider the OECD ‘a pre-eminent sponsor of social and economic measurement’ (Porter 2008: 8). OECD statistical productions in particular, as Mahon and McBride assert, constituted ‘the basis for intersubjectively meaningful comparisons of national experiences’ (Mahon and McBride 2008b: 8). Importantly in this respect, Godin’s research has shown how OECD initiatives in the field of statistics of research and development helped to establish – mainly through the so-called OECD Frascati manual – standardised measurement of science among member countries from 1962 (Godin 2005; 2008). Godin and Ratel note that by the

⁷² In this context, chapter 5.2 outlines the steps taken towards a reconstruction of the organisational and personnel networks that, between 1948 and 1952, enabled the dissemination of labour force sample surveys, the statistical knowledge and technical skills involved. As I show, the demand for comparable data on labour force and manpower utilisation in order to overcome the consequences of war and to normalise economic development was met through the workings of so-called Technical Assistant Missions on behalf of the OEEC from the late 1940s.

early 1960s the OECD in this particular field ‘jouit [...] d’une excellent réputation et dispose de ressources importantes. Elle détient le capital symbolique et les moyens financiers qui lui permettent de développer des outils méthodologiques’ (Godin and Ratel 2000: 262).

The Secretariat has been described as the ‘heartbeat’ (Woodward 2009: 49) of the OECD, exercising ‘all the functions necessary for the efficient administration of the Organisation assigned to it under the Convention, or entrusted to it by the Council and the Executive Committee in the course of their work’ (OECD 1963b: 38). Subdivided into directorates (e.g. Manpower and Social Affairs Directorate) and departments that parallel and service the Council and the Secretary-General, the Secretariat is recruited predominantly from member states. It exerts some independent power in that the Secretary-General, the head of the Secretariat, has permission to make recommendations to the Council about what the Secretariat should study, albeit the Secretariat remains the servant of the members. The Secretariat supports the work program directed by the Council ‘by acquiring and dissecting data, proposing policy ideas and providing administrative and logistical backing’ (Woodward 2009: 43).

The Council composed of representatives from all member states and the Commissions of the EEC (since 1960) is ‘the supreme body of the Organisation [...] from which all general or administrative decisions taken by the Organisation derive’ (OECD 1963b: 27). The Council meets regularly at the permanent level when the Secretary-General chairs it and annually at ministerial level. The Council considers the preparatory studies submitted by the different bodies of the Organisation or the Secretariat. Further, the Council ‘decides on the measures to be taken to ensure the proper working of the Organisation’, to which end ‘it may at any time set up committees or any other bodies which appear necessary for the performance of the tasks of the Organisation’ (OECD 1963b: 27-8).

The field of ‘manpower’, as described by an OECD brochure, ‘involves problems of education, occupational counselling, vocational training, the social adaptation of workers to new conditions, labour-management relations, and the movement of manpower across national borders’ (OECD 1964b: 125). Generally, manpower research and policies were undertaken in a number of different

international organisations. By the early 1960s, the OECD alone had established working relations with the European Economic Community, the Council of Europe, the ILO, the UN High Commissioner for Refugees, the Inter-Governmental Committee for European Migration. Moreover, the TUAC and the BIAC⁷³ were invited regularly to co-operate (see OECD 1964c: 125). The Manpower and Social Affairs Directorate and the Scientific Affairs Directorate, together with the corresponding Committees were the main centres for manpower research.⁷⁴ The Economics and Statistics Department, the Agriculture Directorate, as well as the Information Service also contributed. The MSAC, as described in the 1960s, ‘deals with manpower questions connected with the general objectives of the Organisation, social questions closely linked with manpower problems and manpower movement in Europe’ (OECD 1963b: 36). See also (OECD 1964c: 61f.)

In case of ‘active’ labour market policy, Georg Altmann (2003: 289; 304 and 2004: 109f.) mentions the role of the recommendation C 64 (48) by the OECD Manpower and Social Affairs Committee (21 May 1964) preceding German labour market reforms during the latter half of the 1960s. The author recognises a potential international effect on German reforms, but refrains from inferring any ‘causal influence or without even concluding on an unambiguous point of reference’. (Altmann 2003: 289). Generally, scholarly opinions differ over the effect international organisation might have had on the preparation of the 1969 Employment Promotion Act. Voices reach from Altmann’s more hesitant ‘an international influence is likely to have taken place, albeit hitherto hard to prove in concrete terms’ (Altmann 2003: 304), to Schmid and Oschmiansky’s (2006: 336) more audacious claim that the turn from a reactive to an active labour market policy was essentially initiated by the Organisation for Economic Cooperation and Development (OECD) (Schmid and Oschmiansky 2006: 336). Chapter 7 further outlines active manpower policies, and explores this issue with regard to the role of OECD employment forecasts.

⁷³ From 1962, the OECD connected with organised labour and employers through the Trade Union Advisory Committee (TUAC) and the Business and Industry Advisory Committee (BIAC). ‘Financed and steered by affiliates in OECD states, BIAC and TUAC are autonomous organizations that exist to sway OECD policy and inform members about the repercussions of its work’ (Woodward 2009: 55).

⁷⁴ My short description disregards any manpower research directed towards the then newly entered ‘less developed countries’. The institutional outlook would have to take into consideration, for instance, the Development Department (including the respective Committees) as well as the Development Centre.

3.8. Planning, Economisation of Statistics, and (Employment) Forecasts during the 1960s

Together with prognosis/forecast and the ‘scientisation’ or ‘rationalisation of politics’, planning has been identified as a major ‘problem area’ in which political and social action would take place in the course of the 1960s (Metzler 2002: 75). During the ‘the decade of planning and feasibility’ (Metzler 2003),⁷⁵ planning gained importance as a particular governmental matrix in Western political thought. More generally, as a ‘historical a priori’ (Bröckling 2008: 63) planning and related notions of feasibility and mastering of the future have been thought to replace the role utopia and the philosophies of history played in common societal self-description until the late 1950s.⁷⁶ A first section broadly outlines some major lines of debate in relation to ‘panning’. It will be shown that two interdependent semantic shifts during the 1960s indicate the breakthrough of state planning hitherto tabooed in West Germany as both totalitarian and economically inferior: rationality as a third party of the strict juxtaposition between market and plan, and the emphasis on planning as explicitly democratic. It will be shown that whereas the planning metaphor and related governmental rationalities were rapidly established under labels *à la mode* such as *Strukturpolitik* (adjustment policy), *Regionalpolitik* (regional policy), *Bildungspolitik* (education policy) or *Bildungsökonomie* (economics of education), ‘forecast’ was the much more frequent notion in the field of labour market policies in preparation of the 1969 Employment Promotion Act. The ‘planning euphoria’ (Wagner 2003b) will be shown to have had effects on official statistical infrastructure, in particular with regard to the introduction in 1962 of national accounting, based on comprehensive statistical instruments being developed since the 1950s under the auspices of the Federal Statistical Office. These effects are much less tangible in the case of the Employment Promotion Act. In terms of ‘statistical paragraphs’, the new legislation did not differ much from its precursor, the 1957 AVAVG. As will be shown in Chapter 9, the statistical observation of the increased governmental preoccupation

⁷⁵ This decade roughly lasted from the early 1960s until c.1974. See Süß (2003: 350) for a similar periodisation.

⁷⁶ However, as Bröckling (2008: 73; 77) aptly observes, notions of planning themselves were heavily impregnated by utopian imaginations and philosophical-historic tendencies, as plausibly shown by contemporary, ample philosophical, journalistic and political literature that elaborated on questions of legitimacy of planning in a democratic political system.

with occupational training and inter-regional manpower movement, however, led to considerable extensions of the BA statistical service. Political and legislative resources for the development of a new statistical infrastructure of employment from the late 1960s were largely derived from analogous attempts to rationalise the pension insurance system (chapter 9.3).

3.8.1. ‘The Decade of Planning and Feasibility’ as an Attempt to Cognitively Master Economy and Society

A recurrent *topos* of historiographical literature interprets planning and its diagnosis of the present as informed both by a rhetorically powerful ‘do-ability optimism’ (*Machbarkeitsoptimismus*) and a great deal of ‘defensive thinking’ (*Defensivdenken*) (Süß 2006: 221). Thus, historical scholarship considers the different notions of planning within state apparatuses as the all-comprehensive ‘answer’ to the challenges an industrial society was to face since the advent of ‘classical modernity’: social security, political democratisation and societal integration (cf. Frese and Paulus 2003; Metzler 2003). So viewed, planning is meant to respond to crisis-laden perceptions of a ‘acceleration of the experience of time’ (*Beschleunigung der Zeiterfahrung*) (Süß 2003: 363) during industrial modernisation, or as Süß summarises elsewhere: ‘At the heart of the matter was the creation of zones of stability and calculability by foresighted state action in a world, which, by the dynamic of its change was believed to be thrown out of joint’ (Süß 2006: 221).

If the beginning of such a new knowledge-policy nexus can be traced to the inter-war period (Raphael 1996; Wagner 2003a; b), its breakthrough went hand in hand with the great expansion of state activities that has come to be known as the Keynesian, or interventionist, welfare state after World War II. During this ‘second attempt at social planning’, efforts were made to implant both ‘democratic planning’ and ‘modern social science’ on continental soil – often promoted by transnational institutions, such as the UNESCO, the OECD, or US-based private foundations and the Marshall Plan (see also Wagner 1990, part IV). These efforts entailed ,discourse coalitions for modernization between social scientists and reform-oriented policy-

makers' (Wagner 1994a: 113), and, as such, propagated the role of the activist policy designer, technician and the 'social engineer' (Ross 2003: 219f.; Etzemüller 2009b). In comparison to the earlier effort, this second movement for social planning was shaped – and this holds for the 'German' experience in particular – by the historical experience of totalitarianism, whose affinity to social planning and control, i.e. the idea of ruling elites organised in large-scale bureaucratic apparatuses using knowledge about mass behaviour and about the average citizen to improve order and domination, it aimed to avoid by emphasising democratic consensus.

Indeed, initially, the French experience of *planification* (Fourquet 1980; Desrosières 2003) was regarded by the Germans (and British and Americans) as contrary to market principles and contaminated by totalitarian associations, both Nazi and Soviet. Indeed, the almost militant tabooisation of planning in post-war Germany by either ordoliberal thinkers or/and anti-communist forces and the subsequent 'radical re-evaluation of the notion' (Bröckling 2008: 64) during the 1960s has been identified as a recurrent *topos* in almost every contemporary contribution to the planning debates (e.g. Altmann 2003: 297f., Metzler 2003: 786f.).

Ordoliberal thinkers, such as Ludwig van Mises, Walter Eucken and above all Friedrich von Hayek, since the 1920s, founded their 'new liberalism' on a stringent opposition between the rationality of planning vs. market. Such harsh semantic demarcation of 'market' vs. 'plan' served to enforce the ordoliberal concept of 'social market economy' as the general model for the economic-political order in post-war West Germany: A combination of market and planning mechanisms was not only contaminated by the experiences of the totalitarian past (and present in the German East), but also economically inferior and practically impossible, so the verdict of Hayek (cf. Bröckling 2008: 65; see also Foucault 2008: 171f. on planning according to Hayek). Correspondingly, historiographical research unanimously identifies the role of experts – initially on an international level – as key for gradually intensified debates on the concepts of planning within the German political and scientific elites.⁷⁷ Further, the breakthrough of planning has been interpreted in

⁷⁷ The 1962 EEC memorandum on the planned coordination of economic policies within the EEC, and the subsequent clash between Walter Hallstein (then President of the EEC Commission) and ordoliberal German minister of economic affairs Ludwig Erhard during a meeting of the European Parliament on 20 November 1962 has been defined as the legitimising event for further elaborations on the planning issue henceforth (cf. Metzler 2005: 234f.).

the light of Germany's 'westernisation' (Metzler 2002: 88): Not least the 'society of reference' (*Referenzgesellschaft*; Hockerts 2003: 251) – the United States under Kennedy and Johnson – would have embarked on several planning initiatives, such as the *Great Society* and *War on Poverty* as representations of major programmes of planned social change, thus providing powerful arguments for its German proponents. With reference to the fierce criticism on behalf of a remarkable alliance between liberal and conservative thinkers, respective bodies of work have identified two interdependent semantic shifts in the field of social, political and economic planning, which, subsequently, would set the stage for the concept's breakthrough in the strategic field of – ironically – economic policies (cf. Ruck 2003: 380): democratic planning and rationality.

A common thread in historiographic literature identifies the apparent post-ideological nature of planning together with its social-science base as the major determinants of the contemporaries' then (apparently) successful attempt to come to terms with both a political process perceived as complex and increasingly heteronomous, and a society and economy problematised as ever more demanding and regulatory. In this context, 'rational' or 'scientised politics' was still regarded as political and accessible by democratic scrutiny. (Democratic) planning, at the same time, was considered as an attempt to re-conquer the political – widely understood as exclusively state-centred – from the claws of *Sachzwang*,⁷⁸ imposed by rapid 'technological change'.

Pursuing this line of analysis, the literature revised marks the notions of rationality or rationale as the 'common third party of the strict juxtaposition of market and plan' (Bröckling 2008: 67): Planning is rational, so the argument goes, since its procedures are based on scientific methods and results. Whereas even neo-liberal thinkers as, for example, Hayek conceded the existence of a rationality (albeit in both the market as 'planning without planner' and the subject as a rational economic planner) and also favoured indirect or prophylactic intervention with respect to what Gertenbach calls 'permanent care of the market' (Gertenbach 2007:

⁷⁸ *Sachzwang* can be translated as inherent necessity and refers to prominent German-speaking debates of the early 1960s.

81),⁷⁹ public and scientific discourses on government became unthinkable without any reference to rationality, rational politics, but also ‘modern’ or ‘reform’ (cf. Metzler 2002: 87; Süß 2006: 208). In contrast to earlier efforts, the state was meant to ‘actively’ adopt designing policy measure, supported both by committees of cross-departmental coordination and increasing scientific expertise supplied for the benefit of political and administrative advice. Chapters 9.7 and 9.8 will show how issues with regard to electronic data processing as a means of ‘modern’ social policy repeatedly arose in the context of rational administration and informational transparency.

At the same time, the new generation of planners had a higher opinion of advances in social science than had the first planning movement. Their conceptions rested on fairly strong assumptions about both the state and social science as well as about ‘society’ for which the social science had taken over the monopoly of description, diagnosis and future projections by the 1960s. Social knowledge was increasingly produced on demand on behalf of government agencies, business organisations, and political parties with a view to their own policy and organisational planning needs. Looking back from the early 1980s to the 1960s, a French research administrator, Robert Fraisse, spoke of their pervasive ‘optimism with regard to the exhaustive cognitive mastery of society’ (Fraisse in Wagner 2003b: 605).⁸⁰

A re-orientation of state economic policies since the late 1950s seemed to open the door to Keynesian ideas in the Federal Republic (Allen 1989: 273f.), the most visible and prominent example of which was the creation of a Council of Experts (*Sachverständigenrat*), known colloquially as the Five Wise Men, in 1963.⁸¹ Criticising the government under ordo-liberal Chancellor Ludwig Erhard for inactivity in the face of growing inflation, the *Sachverständigenrat* developed

⁷⁹ In this respect, the common assumption of rationality – although so fundamentally different in terms of both its direction and bearer – served, at least in the public discourse, as reconciliatory force between the reason of planning and the reason of a market competitive order. Or, as Bröckling (2008: 67) puts it: ‘The irreconcilable alternative between plan and market was, if not resolvable, then indeed mitigated by transferring it to a debate on conditions and criteria for rational action’.

⁸⁰ Fraisse continued (ibid.): ‘This research is led to endow itself with an aura of the all-comprehensive, owing to the functional use which administration wants to make of its results – and without doubt owing also to the optimism which gives responsible administrators the idea of a strong and continuous growth [of knowledge]. One speaks in terms of knowledge gaps, which are now to be closed. In a certain sense, the objective is the exhaustion of the real, as is evidenced in the requests for proposals of the time which underline the relevance of comprehensive inquiries about consumption, income, life-styles; about regional and national economic accounting; about global modelling of public action systems etc.’.

⁸¹ See in great detail on its long prior history and creation Nützenadel (2002) and, further, extensive academic literature mirroring the council’s eminent importance mentioned in Schanetzky (2004: 314).

concrete solutions and political guiding lines for a ‘concerted stabilising action’ (1965) that, two years later, was famously taken up again by recently appointed minister of economics, Karl Schiller under a new ‘Grand Coalition’ (which marked the end of an era in which social market economics was virtually unquestioned). The idea of a ‘concerted action’,⁸² aiming at ‘une action qui tente de maintenir l’équilibre entre des elements ordo-liberaux, des elements keynésien et des elements néo-corporatiste’ (Dupré, Giraud et al. 2006: 352) was accompanied by a Stability and Growth Law which was passed by the Grand Coalition in 1967 under immense public praise. The legislation obliged the state to macro-economic planning and ‘global regulation’ to secure the goals of the ‘magic polygon’ (price stability, economic growth, full employment, and balanced trade).⁸³

In the field of employment and economic stabilisation policy (*Konjunkturpolitik*), planning has been analysed under the rubric of so-called ‘active labour market policy’ (Altmann 2004; Schmid and Oschmiansky 2006), of which *Vorausschau* (forecasting) and the full employment convention were key constituents (see Chapter 3.8.3). As ‘significant founding metaphor’ (*prägnante Begründungsmetapher*, Altmann 2003: 285), planning induced numerous reforms in the field of West German labour market and employment policies, most notably the 1969 Employment Promotion Act. Fundamentally, the notion of labour market policy (*Arbeitsmarktpolitik*) was crucially redefined in latter half of the 1960s as the micro-political reverse of macro-political Keynesianism, which both stood for the then widespread ‘steering optimism’ of economy and society (Schmid and Wiebe 1999: 365f.).

⁸² Referring, linguistically at least, to international precursors, such as the ‘concerted actions’ within the US-American Antitrust legislation or the *économie concertée* within the French *planification*. See Schanetzky (2004: 320).

⁸³ Further, public budgets were committed to mid-term financial planning. See Schanetzky (2004: 318) for further literature on the *Stabilitätsgesetz*. See also Dupré, Giraud et al (2006: 352f.).

3.8.2. Economics and Statistics as Resource for Each Other

National accounting has been placed at the heart of after-war economic policy issues (Nützenadel 2005: 99). Due to deficits in the official statistical system in the after-war period, national accounting – promoted by international institutions such as the UN and those related to the Marshall Plan – set the statistical-scientific standards not only in economic policy, but also in the field social and demographic policy. As Litz and Lipowatz observe, only within national accounting had more explicit theoretical and methodological orientations (economic cycle theory) been accepted by the 1950s (Litz and Lipowatz 1986: 32). By contrast, for social and demographic statistics, during the 1960s and 1970s, explicit considerations of social scientific theories were met with great reservations. Thus, whilst national accounting and the underlying economic cycle theory gained – to the ordoliberal economic theorists’ dislike – scientific authority at the time, and became the symbol of a successful self-description of national economies throughout Europe (cf. Suzuki 2003b), the methodological basis of official statistics continued to be opaque and contested. Certainly, also with regard to economic cycle theory, there were serious debates as to whether it was capable of theorising economic practices underlying economic statistics in an appropriate and comprehensive way.⁸⁴ Between 1950 and the mid-1970s, in the German case, social statistics, outside the academic field of statistical methodologies, mainly operated without a clearly defined methodology derived from theoretical considerations under the topic of, for instance, labour market theories, socialisation theory or growth theories.

Post-war statistical reasoning in Germany has to be placed in the context of exigencies of scientific objectivity and mathematical-natural scientific reasoning (Nützenadel 2005: 91; 354f.). With regard to the economic disciplines, and econometrics in particular, the methodological attractions of physics and mathematics were greater by far than those of sociology and history. By turning to more abstract and mathematically formalised models, such disciplines claimed to be ‘applied functional science’ (Nützenadel 2005: 354). For this reason, precise

⁸⁴ See, for instance, the late 1960s debate among major statisticians on the ‘systembildende Kraft’ (system shaping powers) of national accounting mentioned in Litz and Lipowatz (1986: 32).

statistical measurement of national accounts and their business cycles were of major concern.

The post-war rise of empirical economic research and its relatively strong institutional and personal connection to official statistics dates back to the 1920s when economic theory, mathematical modelling and economic statistics were brought together in the attempt to align empirical, econometric research with mathematical-natural scientific thought and its promising claims to scientific objectivity (Nützenadel 2005: 90-121). For example, the Berlin Institute for Business-Cycle Research (IfK) was inaugurated in 1925 by Ernst Wagemann, recently appointed President of the Reich's Statistical Office (cf. Tooze 2001: 103-148 for more details on Wagemann and the IfK). Its formation, according to Tooze, was to be 'a defining moment in the history of German official statistics' (ibid.: 104) in that Wagemann and his staff claimed to combine intensive statistical monitoring of the fluctuations of the economy (*Konjunkturbeobachtung*) with scientific analysis of the business-cycle (*Konjunkturforschung*) – both meant to enable the power of prediction, providing policy-makers with a definite outlook on which to base long-term decisions. Thus, the cooperation between the Statistical Office and the IfK is noteworthy in that the latter would draw on the Statistical Office for raw material. At the same time, its independent status would allow it 'to venture into speculative areas of statistical estimation that were off-limits to official statisticians' (Tooze 2001: 104).⁸⁵

The rise of economic research embedded in official statistical infrastructure and concepts gained new momentum in the post-war period. The relationship between the two fields – statistics and economics – was probably most tangible through institutional arrangements. In France, for instance, the Official Statistical Institute, formerly known under the name of General Statistics Office (*Statistique Générale de la France*) was re-established in 1946 as the National Institute of Statistics and Economic Studies (Touchelay 2000). In the German Federal Republic statistical and economic perspectives maintained a close institutional relationship, too. The StBA was represented within the Committee for Economic Research

⁸⁵ In summer 1945, the *Deutsche Institut für Wirtschaftsforschung* (DIW) would emerge from the IfK developing into one of the leading institutions in empirical economic research outside universities (see Nützenadel 2005: 93f.).

Institutes (*Arbeitsgemeinschaft wirtschaftswissenschaftlicher Forschungsinstitute*),⁸⁶ which, in turn, was represented in the Statistical Advisory Committee thus helping to define programme and methods of official statistics.

Further, the German Council of Economic Experts – arguably the most powerful economic advice body in the political discourse of the Federal Republic – would take up office (in form of a branch office) at the StBA in February 1964. Nützenadel assumes that its comparatively influential position can be ascribed, among other things, to the fact that it could rely on an incomparable scientific infrastructure, operated by the branch office under the auspices of a General Secretary at the StBA where regular meetings would also be held. Most importantly, as Nützenadel (2005: 170) notes, ‘the institutional connection to the Federal Statistical Office [...] provided direct access to the most recent statistical surveys’. Metzler (2004) contextualises the founding and early years of the Council in terms of both reification (*Versachlichung*) and objectivity in the wider sphere of rational politics and planning, and US-style economic advice to politics. In order to still fears of involved ministries that an oppositional force or a quasi-ministerial institution was being created, the BMWi for reasons of neutrality proposed to institutionally attach the Council to the StBA. In 1962, Fürst, first StBA president was even discussed as Chairman – ‘as guarantor for the intended neutrality’ as Metzler (2004: 135) puts it. Fürst himself, however, rejected these plans and let the BMWi know that ‘an instrument maker cannot be expected to compose and conduct a symphony without further ado’.⁸⁷

⁸⁶ The committee was founded at Ludwig Erhard’s suggestion in October 1949 (see Nützenadel 2005: 98). Its member institutions (seven in 1949 and twenty-two in 1961) were supposed both to intensify scientific cooperation and serve as contact for ministries, state agencies and political parties. Since 1950, the committee presented a bi-annual report on the west-German and international economic trends entitled *Die Lage der Weltwirtschaft und der westdeutschen Wirtschaft*. By the end of the 1950s roughly 330 scientists and 1000 staff were employed at various institutions comprising the committee (Nützenadel 2005: 99).

⁸⁷ Gerhard Fürst an Wolfram Langer (BMWi), 30 March 1962, taken from Metzler (2004: 135).

3.8.3. Economic and Employment Forecasts as a Mode of Government

Scholarship from various disciplines has had a long-standing interest in the history and theory of forecasting. Different disciplines adopted different epistemological standpoints towards and scientific beliefs about it. Science researchers, for example, are broadly concerned with the social context (e.g. restricted networks among policy-makers, academics and business people) through which economic forecasters develop the expertise that is essential for the credibility of their predictions (Evans 2007). Critiques from within economics and political economy have shown more openly that forecasts express a long-standing human desire to know the future rather than a serious scientific enterprise. According to such critiques, such endeavour was doomed to fail against the backdrop of an inherently complex and multifaceted social world. Peck, for instance, considers the economy and the social world more broadly as ‘intrinsically *unpredictable*’ (Peck 1999: 342, emphasis in original), and hence deems forecasting employment entirely ‘pointless’ (Peck 1999: 340). For him, by confronting predicted labour market outcomes with the ‘real world’, employment forecasts are at best ‘tales of the expected’ in that all their predictions are only true in that they are usually wrong. Whilst one can easily agree with his witty account of ‘voodoo economics’, his main argument arguably misses the more interesting point: why that both forecasters and consumers still rely on forecasts for their decisions even though they have repeatedly been proven wrong by their own models? In a similar vein, McCloskey (1992) historicises forecasting as an ancient human practice, thus taking away some of its contemporary scientific appeal. Relating methods of forecasters to ancient examiners of entrails is a powerful strategy for disclosing some of their rhetoric as pure ‘magic’ or ‘art’, but does not do much to illuminate the more historically specific question of why forecasts became a powerful mode of government in the first place.

In contrast to such criticism of the scientific status of prognosis, several contributions to a recently published volume take seriously the idea that the knowledge-based disclosure of the future was (and still is) a firmly established mode of scientific practice (Hartmann and Vogel 2010a). Such perspective directs scholarly attention to the social and cultural contexts within which scientific

communities struggled both for new horizons of meaning and sources of legitimacy expected from politics and the public. Methodological and technical questions within forecast research, as well as questions on the accuracy of predictions fade into the background. Or rather, such issues, together with criticism of the scientific status of forecasters and their models are placed in the historical discursive grammar within which forecasts were spelled out. In this respect, the negotiated future is considered a reflection of the respective ways in which (and the various spaces within which) sciences and politics interpreted the present (Hartmann and Vogel 2010b).

Historically and geographically, mid-twentieth century economic forecasts can be contextualised within three distinct albeit interrelated spaces: (1) a state 'government of variables' (Donzelot 1988) seeking legitimacy of its actions upon the economy and the public; (2) a welfare state increasingly dependent on knowledge about the future in the context of a 'scientisation of the social' (Raphael 1996); (3) an economic system thought and acted upon through business cycles considered to be predictable. As will be shown with respect to the West German case, economic forecasts came to be firmly established in the 1950s with the rise of applied economic research as a state science, and a state government increasingly dependent on economic expertise and statistical data. Labour forecasts, by contrast, were a more recent technology. The StBA – in order to meet legal requirements and international recommendations – for the first time conducted short-term labour forecasts in 1959. But only by 1962 did the German labour administration engage with the idea of comprehensive labour market forecasting.

Nützenadel's (2005; 2010) research on post-war German economics as expert culture provides some telling historical evidence on the wider politico-scientific context of prognosis and forecasting. The gaze into the future was primarily enabled by an unprecedented rise of empirical economic research (*empirische Wirtschaftsforschung*) as a governmental science during the 1950s, and a simultaneous demand for scientific data and models by the German state as it sought to observe and analyse the economy. This double movement built on manifold institutional and scientific inventions made during the previous era of planning and rational government in the 1920s, when business cycle research

(*Konjunkturforschung*), market and economic research were first institutionalised (see Chapter 3.8).

As far as the ministerial bureaucracy is concerned, in 1950 already an ‘Interdepartmental Working Group on National Accounts’ (*Interministerieller Arbeitskreis Volkswirtschaftliche Bilanzen*) was initiated under the chairmanship of the StBA president Fürst (Nützenadel 2005: 109). Against initial reservations from ordoliberal fractions within the BMWi, the government and its ministerial bureaucracy were soon pushed further to follow prospective, quantified economic policy goals. In 1956, the Social Democrats, in opposition then, drafted a bill to the German Parliament. In the same year, the WiBR demanded public portrayals of the entire governmental economic policy as well as of the effects on the economy as a whole. Shortly after, the BMWi institutional structure expanded into a further department on national accounts and forecasting (cf. Nützenadel 2005: 109f.). Crucially, Input-Output-tables as well as national accounts based on statistical data were retrospective in nature. Nevertheless, they were not produced – as Gerhard Fürst, then president of the StBA emphasised – ‘to furnish historical data, but to support decisions about the future based on the present situation’ (Fürst in Nützenadel 2005: 108).⁸⁸ Indeed, it was a primary aim of official economic statisticians to produce numerical series as relevant as possible both for decision makers and for trend extrapolation and econometric modelling.

Economic forecasts were particularly criticised by academic economists, and in particular by those of ordoliberal provenience (Nützenadel 2005: 112f.). During the 1950s and 1960s however, their criticism, inspired by methodical, humanistic and philosophical ideas, was rather marginalised.⁸⁹ Within economics and economic

⁸⁸ Fürst’s statement was taken from his contribution to an event on *Die sozialpolitische Bedeutung der Volkswirtschaftlichen Gesamtrechnung* organised by the *Gesellschaft für Sozialen Fortschritt e.V.* in 1958.

⁸⁹ A focus on discourses and their historical transformation is particularly useful at this point, since analogous positions among critiques and proponents within the discursive field of economics and prognosis can be detected across time. For example, McCloskey’s (1992) and Peck’s (1999) critique might differ in style and direction, but their fundamental position against an economic science obsessed with forecasting (McCloskey) or policy-makers emulating market trends predicted by ‘hard’ science (Peck) occupied the minds of historical critics already. For instance, Peck’s humanistic criticism (expressed in his analogy between knowing the machine and knowing the future vs. the idea that humans and the social world are too complicated or too changeable to be forecasted) emulates Albert Hahn’s critique of false ‘mechanical’ causal relations established by economic forecasters between ‘objective data and the decisions taken by the individual members of an economy’ (Hahn in Nützenadel 2005: 112). McCloskey’s more historical critique reflects Friedrich A. Lutz’s historico-philosophical discontent expressed in the 1950s. Both, at least, could subscribe to the following allegations made by Lutz: First, incorrect prognosis in history gives the lie to the general possibility of forecasting economic development (*die*

expert cultures, the epistemological and political legitimacy of natural sciences (especially medicine and physics⁹⁰) was too firmly established for economists not to attempt to position their discipline (econometrics in particular) in its bright light. Succumbing to the exigencies of economic political practice, doubts about the reliability of forecasts were easily sidelined either following some sort of probability theory (building uncertainty into system and environment making the occurrence of a prognosis more or less likely) or by recognising the value of weak or vague prognosis, according to the principle: ‘It is better to be vaguely right than to be precisely wrong’ (Herbert Giersch in Borchardt 1962: 497).⁹¹ Further, as Nützenadel (2005: 119) suggests, such appeals to modesty or cautions against exaggerated optimism served ‘to protect one’s own discipline and its methods’ against being discredited among colleagues, policy-makers and the public.

Towards the end of the 1960s, in the context of growth and economic stabilisation policy, planning and target goals attained an even more prominent status in the context of rational governmental action. In fact, the entire concept of general regulation (*Globalsteuerung*) was future-oriented. Repressive crisis relief was replaced by crisis prevention, as it was laid down in §1 of the 1967 Stability and Growth Pact, which, of course, required reliable forecasts about future developments (see 3.8.1. above). As Nützenadel suggests, forecasts of different origin had been in use for a while within ministerial planning groups, parliamentary committees, and economic and financial policy bodies. The so-called concerted action (*Konzertierte Aktion*) initiated in 1967 by the minister of economics Karl Schiller in the name of an ‘enlightened social market economy’ serves probably as the paradigmatic example for a ‘government by variables’ (Donzenlot 1988). Based on the belief in rational planning and enactment of social and economic policy as a result of systematic cooperation between the state and representatives of social and economic collective actors, these gatherings based their work variously on statistical tables produced by

Prognostizierbarkeit wirtschaftlicher Entwicklungen). Secondly, forecasts are based on a deterministic philosophy of history which is latently threatening a free society (see Nützenadel 2005: 113).

⁹⁰ Especially medicine provided semantic and metaphorical resources to establish analogies between the tasks of doctors and economists: Just as a doctor infers the future course of an illness from a diagnosis believed to be correct does the economist infer future economic development from present and correct data. See some hints in Nützenadel (2005: 114) with reference to economist Günter Schmolders.

⁹¹ Nützenadel (2005: 114) points out that the conference this statement was taken from would not debate whether or not economists should actually research or are able to predict the future. The four-day event organised by the *Verein für Sozialpolitik* in September 1961 merely debated which forecasting methods were superior to others and how to disable interferences.

the BMWi and the Economic Research Council (Schanetzky 2004). Having outlined the historical background, we can now turn to an assessment of the archival material necessary for a reconstruction of the period c.1950-1973.

3.9. 'My' Archive

This dissertation is based both on unpublished and published material. As the previous sections of this chapter disclosed, the production of labour statistics was primarily a matter for the BMA and the BAVAV/BA as well as of related institutions such as LAÄ and AÄ. With regard to the double structure of official labour statistics in West Germany, the StBA also played an important role. Accordingly, archival material relating to these institutions and housed in the Federal Archive in Koblenz (BAK) serves as the main empirical evidence for this dissertation. Material from the repository on the history of labour administration in Germany, Mannheim (SEAD-BA) complements this collection. From 1967, the IAB emerged as a further institutional space adjoint to the BAVAV (from 1969: BA). The BAK also houses archives from this institution. Further, archival material from the BMWi was consulted at the BAK, even although it turned out that the personnel of this ministry was hardly involved in the issues discussed in this dissertation. Institutional as well as personal connections between the BMWi and the BMA/BA were reconstructed from archival remains in BMA or BA repositories.

A full history of labour statistics cannot be written without reference to the labour movement and trade unions. This dissertation partly accounts for this history. The Archive for Social Democracy (AdsD) in Bonn provided for me archival evidence on the DGB, the German industrial union (IG Metall), and the Economic Research Institute (WWI) under the auspices of the DGB. Archival materials from DGB federal executive departments 'Social Policy' and 'Economic Policy' constitute an important basis for this study. Other material was not consulted for reasons of time constraint. Potential ramifications of this deficiency are discussed in the conclusion to this thesis.

In order to account for the internationalisation of labour statistical discourse during and after the Second World War, the OECD Archives in Paris were visited. Material from the ILO Archives in Geneva would have usefully complemented the international perspective adopted in this study. Due to the constraints of time and finance which limited access, I resorted to ILO published material only. As OECD initiatives in this field partly emulated those of the ILO, the empirical basis of this study is not lessened by this omission. A wide range of OEEC/OECD published material complement this selection.

Published material constitutes a further important empirical basis to this dissertation. Sources of different kind or ‘genres’ (Desrosières 2000/2008) were consulted. The BAVAV specialist journal *Arbeit, Beruf und Arbeitslosenhilfe: Das Arbeitsamt*⁹² was analysed systematically for the period 1950-1974. Chapter 6 largely builds upon a debate between local labour office practitioners and BAVAV representatives that took place in this journal in 1964. As local or *Länder* archives were not visited, published material partly helps to incorporate evidence on those scales into the overall archival design of the thesis.

The IAB in-house publication *Mitteilungen aus der Arbeitsmarkt und Berufsforschung*, founded in 1968, was systematically analysed for the period 1968-1973. The organ of the DStG *Allgemeine Statistische Archiv* was systematically evaluated for this thesis with the help of an index of all publications and DStG annual conference topics contained in Rinne (1991). Next to various specialist contributions on statistical issues important to this analysis, this journal published the proceedings of the DStG annual meetings which serve as the empirical basis for Chapters 5 and 7. Other periodicals were consulted such as the BMA gazette *Bundesarbeitsblatt* and the StBA journal *Wirtschaft und Statistik*.

Statisticians themselves at times acted as historians and produced internalist and descriptive histories of the institutions they worked in. These publications constitute important primary material for this dissertation. StBA president Fürst, for example, produced various historical accounts of the development of German and

⁹² This journal, as the subheading specified, was a ‘Specialist Journal for the BAVAV areas of activity’ (*Fachzeitschrift für die Aufgabengebiete der Bundesanstalt für Arbeitsvermittlung und Arbeitslosenversicherung*) edited by the BAVAV. Former title 1950-1956 was (*Das Arbeitsamt. Fachzeitschrift für Theorie und Praxis der Arbeitsverwaltung*), to be entitled *Arbeit und Beruf. Fachzeitschrift für Theorie und Praxis der Arbeitsverwaltung* 1975-1993.

international official statistics (e.g. Fürst 1963; 1972). Hüttner, then Head of Department (*Leitender Regierungsdirektor*) at the StBA, published the office's institutional history in a series aiming at introducing public institutions and organisations of the Federal Republic to 'a wide circle of laymen' (Hüttner 1972). Further, the *Mikrozensus* (Esser, Grohmann et al. 1989), the DStG (Grohmann, Krämer et al. 2010), as well as the DStG's organ, the *Allgemeine Statistische Archive* (Rinne 1991) have each been studied. Fischer and Kunz' (1991) edited volume on the 'Foundations of Historical Statistics in Germany' contains a contribution on the history of German official statistics on behalf of the StBA's historical statistics department, co-authored by the then StBA president E. Hölder (Hölder and Ehling 1991). The volume also contains R. Hohls' useful (albeit descriptive) overview on the evolution of employment statistics since the foundation of the Imperial Statistical Office in 1872 (Hohls 1991). Fritz (2001) offers a brief chronology on the history of official labour statistics in Germany. Both sides, historical statisticians and quantitative historians, share the concern for accurate statistical data, the possibility of verifying sources and over long statistical series – an issue I discuss further in the general conclusion.

Such histories have also been produced for administrative and labour statistics. Important to the present context is Galland's, then *Ministerialrat* with the BMA (see Appendix I), 400-page work *Statistik der Beschäftigten und Arbeitslosen in der Bundesrepublik Deutschland* (Galland 1956). Similar to the above in terms of style, but more exhaustive and focused on one statistical sub-domain, his work was originally designed as a contribution to a handbook planned and commissioned by a resolution of the eighth International Conference of Labour Statisticians in 1954 to provide statistical background material (methods and concepts) for the purpose of international comparisons of manpower and (un-)employment. Galland's book is thus intimately linked to the historical context under study. As an administrative expert's work, it aimed to systematise abundant statistical and conceptual knowledge for the purpose of an international governmental and expert body (ILO).

In the present context such documents (see also Nothaas 1948) contain important case material, either with regard to the statistical inventions described or some biographical notes on leading DStG members. But they do not themselves

suffice as histories of statistical offices, not least because they do not problematise the relationship between the production of statistical programmes and their usages in different context. Technical and political controversies around statistics are mostly dismissed or ignored for the purpose of a rather uniform and chronological account of institutional developments and restructuring, or the achievements and merits of the leading personnel.

Statistical textbooks by leading contemporary statisticians constitute a further important empirical basis to this study (e.g. Anderson 1954/1965; Kellerer 1960). Such material provided invaluable insight into some of the professional statistical debates of the time and served as basic sources for the reconstruction of statistical techniques at the basis of statistical productions. Specialist handbooks such as the Code Key of Occupational Information (BA 1973), or the Annotations to Placement Statistics (BAVAV 1963) served to reconstruct some of the technicalities involved in labour statistics and the state administration more broadly. Horkheimer and Adorno's (1944/2002) *Dialectic of Enlightenment* was taken as a historical voice rather than an analytical treatise that – together with Süskind's publications as editorial journalist to the *Süddeutsche Zeitung* – expressed particularly well contemporary criticism of statistics and the fascist/post-war social state (Chapter 5.4).

3.10. Methods

Methodologically, this thesis assumes that social categories such as unemployment and labour have to be conceived as diverse socio-economic practices whose plurality and contradictions are to be described and analysed most fruitfully through a discourse analytical method. Generally, the notion of discourse allows for tracing how the making and interpretation of knowledge circulates through space and time beyond institutional frames (Foucault 2007). In accordance with the general research perspective adopted for this dissertation, conceiving labour statistics as a discourse extends the analysis from an institutional setting to one that focuses on the interlinkages and exchanges between different 'spaces' on different scales, whether institutional, individual, or technical (such as classificatory systems or technologies).

Before I give further reasons why ‘discourse analysis’ was adopted for this thesis, I need to outline my understanding of historical discourse analysis. A final section looks at how I went about analysing the material.

What has become known as the ‘linguistic turn’ (Rorty 1967/1992) in human sciences, intervened into epistemological and methodological conditions that can roughly be described as ‘the domain of the knowing subject’ (Prior 1997). Within that domain, fundamental questions in social and historical sciences were raised as to what constitutes the ‘sense’ historical subjects hold both individually and collectively. Inventing a self-conscious and speaking subject as ideal-type (Weber), its more or less conscious acts were to be analysed according to hermeneutical *Verstehen*: Historical research should contextualise any historical object by paying attention to meaning, modes of perception and sense giving (*Sinnstiftung*) of contemporary historical actors. (Sarasin 2003: 13f.).

Against such backdrop, social science research has long been calling attention to a dimension of human activity that ‘cannot be contained in the consciousness of the isolated subject’ (Prior 1997: 64; see for a concise report from a historiographic point of view Sarasin 2003: 10-30). In short, it has to look at something that lies beyond the world of the atomistic individual. Most prominently perhaps, this critique has been voiced within late twentieth century philosophy (Habermas 1985; Taylor 1987). These authors have railed against the epistemological presuppositions that accompany theories of the knowing subject, most importantly perhaps the observation that social life is established on various forms of collective activity or praxis, or, as Habermas has put it in reverse: ‘the historical context is not constrained by the mutual intention of human beings’ (Habermas 1985: 116; my translation). For example, such dimensions beyond the knowing subject have long been focused on in terms of collective mentalities. The idea of a history of mentalities has sometimes been used by sociologists (such as Durkheim and Mauss). For such thinkers, a mentality is a collective, relatively bounded unity, and is not readily examined by those who inhabit it. Foucault carries further such notions by introducing a set of presuppositions, which he calls epistemes. These epistemes structure a specific field of knowledge and elevate perception to the level of objective knowledge. In ‘The Order of Things’ Foucault (1970) claims that such a set of fields of knowledge

‘rested upon a sort of historical a priori [...] This a priori is what, in a given period, delimits in the totality of experience a field of knowledge, defines the mode of being of the objects that appear in that field, provides man’s everyday perception with theoretical powers, and defines the conditions in which he can sustain a discourse about things that is to be recognized to be true’ (Foucault 1970: 157-158).

Thus, within the analysis of such epistemes authorial, subjective intent and design is replaced by an attempt to examine the discursive rules through which knowledge comes to be produced, encoded and displayed. Discourses in the Foucauldian sense can be conceived in a double sense:

For one, discourses are considered as regular practices constitutive of knowledge. In such *theoretical* vein, discourses make an important contribution to a social theory of discourse in such areas as the relationship of discourse and power, the discursive construction of social subjects and knowledge, and the functioning of discourse in social change. This is a constitutive view of discourse, which involves seeing discourse as actively constituting society on various dimensions (Foucault 1972/2002; Bublitz 2001). For another, discourses are considered as methodological tools for a reconstruction of discursive reality. In the vein of a *discourse analysis*, Foucault and his like-minded successors were concerned with analysing ‘statements’. But, Foucault argued, a discourse never consists of one statement, one text, one action or one source (cf. Hall 2001). The same discourse, characteristic of the way of thinking or the state of knowledge at any time (i.e. an episteme) will appear across a range of texts. Briefly, discourse analysis is concerned not with specifying what sentences are possible or grammatical – discourse analysis is not to be equated with linguistic analysis, nor discourse with language –, but with specifying socio-historically variable ‘discursive formations’, systems of rules which make it possible for certain statements but not others to occur at particular times, places and institutional locations (Fairclough 1992; Diaz-Bone 2005; Diaz-Bone 2006).

One has to be aware that for discourse researchers in various disciplines it has always been a major methodological and methodical struggle to apply Foucault’s work within discourse analysis in general. Even though ‘the’ method is fairly well established in social and historical sciences (see Landwehr 2008 for a recent introduction for historians), there are various allusions to his famous quote to use his works, ideas and models as ‘tool box’. Fairclough aptly summarises a widespread convention among Foucauldian discourse researchers, that ‘one cannot simply

‘apply’ Foucault’s work in discourse analysis; it is [...] a matter of putting Foucault’s perspective to work’ (Fairclough 1992: 38). Thus, Foucauldian discourse research offers more a perspective than a theory or a research programme that merely needs to be applied (Landwehr 2008).

Such a broad understanding of discourse analysis also informs this thesis. A discourse analytical approach has a number of attractive features. It is arguably complementary with the theoretical concepts of a ‘politics of statistics’ outlined in Chapter 2. As noted, Boltanski and Thévenot’s (2006) reconstruction of social theory requires deploying as few categories as possible beyond those introduced by historical actors themselves (see also Callon and Latour 1981). In the attempt to link micro- and macro-sociological description of the social world, the authors reject the abstract categories of groups and social classes of much sociology, the representative individual of mainstream economics, as also case-study exemplary figures found in some historical studies. Instead, they prefer to ‘follow the actor’ (Latour 1987) and adhere as closely as possible to his or her procedure in establishing equivalences between things and humans, or particular justifications in a given situation. As is shown in Chapter 6, for example, this approach entails paying careful attention to the diversity of forms of justification. In order to make explicit these forms, careful attention to the semantics or discursive themes employed as textual forms in the archival material has been a useful methodological prerequisite in this respect. ‘Intensive’ (Hannah 2000: 4) analysis in particular (instead of ‘extensive’) allows us to link textual forms of knowledge with its political, technical and also moral context. Rather than attempting to cover ‘the’ archive of an institution, I lingered longer over a more limited range of archival documents, reports, and published texts. I refrained from following a step-by-step analysis of archival evidence as suggested by some handbooks not least for the reason that the empirical evidence used in this study exceeded a close semantic microanalysis. Some published material, however, (e.g. the analysis of Galland 1961 in chapter 7), statistical textbooks (as in Chapter 5), as well as administrative reports (such as in Chapter 6) were examined more closely on the assumption that ‘textually ordered knowledge packages and stabilises the order of things as they appear within a wider realm of discourse’ (Prior 1997: 67). In this sense, statistical textbooks or publications by leading ministerial

personnel were taken as indications of how contemporaries saw the world, how they differentiated the parts within it, and how they also – by way of describing the world – engaged with it.

In this regard, a discourse analytical approach was chosen to allow for a greater analytical sensitivity to the semantics with which contemporaries framed and expressed their views and justifications. For example, the idea and concept of ‘labour force’ (as analysed in Chapter 5) had a socio-political content of which contemporaries were more or less aware, depending on their political and moral standpoint. ‘Discourse’ can also be read as a particular structural expression of specific ‘semantics’ (Koselleck 2004a). It becomes clear, for example, that ‘labour force’ linguistically points to its constitutive other, the ‘armed forces’ and thence to the wider context of war. The analysis of origins, nature and structure of such discursive themes (or indeed single discursive concepts) serves particularly well to uncover these concepts and their historical effectiveness. Similar claims could be made for the semantic analysis of a particular statistical discourse along the lines of ‘isomorphism’ and ‘transposition’ as presented in Chapter 5.3. In this case, certain awareness for linguistic expressions of wider semantics (or ‘statements’ in the Foucauldian sense) opened the discursive field towards a particular neo-Kantian discourse inscribed in contemporary statistical language (see Chapter 5.3.).

Such historical-political semantics takes into account that, to speak with Koselleck, ‘neither social nor political history is ever identical with its conceptual self-expression’ (Koselleck 2004c: 157). Analytically, this stance assumes that for historical actors (as for the historian) language and sociopolitical content coincided in a manner that was not readily comprehensible to the speaking agents themselves. To put it more bluntly: ‘history is never identical with its linguistic registration and formulated experience [...], but at the same time, it is not independent of these linguistic articulations’ (Koselleck 2004c: 159). Methodologically, such a perspective entails, as Koselleck points out, reading sources in two ways at once: ‘as the historical utterance of agencies, and as the linguistic articulation of specific semantic structures’ (Koselleck 2004c: 158).

A further principle of discourse analysis has been useful to my analysis of the material. Discourse analysis as understood here requires a certain openness of the

researcher towards the ‘order of things’ as they reveal themselves as properties of the discourse in the course of analysis (Landwehr 2008: 102f.). This principle complements methodologically the ‘scarcity of theoretical presuppositions’ noted in Chapter 2 in the context of a ‘politics of statistics’. Methodologically, this requires first of all openness towards the selection of the archival corpus. As mentioned in the previous section, I chose institutions such as the BAVAV, BMA and StBA as the primary spaces within which labour statistical discourse were produced and debated. Given the often technical and scientific nature of statistical discourses as expert discourse, the rather close linkage between discourse and institutions is probably not particularly surprising. The nexus can be considered the semantic expression of the fact that statistical discourse was (and is) rather arcane comprising comparably few statisticians and labour administrators linked to specific institutions. Such ‘stabilised’ or more compressed discourses serve particularly well as an entry point to the study of discourse (Sarasin 1996: 153f.).

At the same time, I attempted to extend this methodological focus by incorporating further, rather dispersed material (see Chapter 3.9). A wider ‘genre’ of sources, for instance, allowed me to trace discursive elements of statistical textbooks (Chapter 5.3, 6.5) within state administrative contexts, or the presence of ‘public’ statements within the ministerial bureaucracy (9.2). Two further extensions of ‘discourse’ as analytical term have to be noted. The first is broadly inspired by Kittler’s (1990) notion of ‘discourse networks’. In Kittler’s usage, ‘discourse network’ designates ‘the network of technologies and institutions that allow a given culture to select, store, and produce relevant data’ (Kittler 1990: 369). The term is very extensive and beyond the analytical breadth of this thesis: it attempts to link physical, technological, discursive, and social systems in order to provide epistemic snapshots of a culture’s administration of power and knowledge. Nevertheless, Kittler’s focus on media, storage devices and machine technology inspired me to include several sections on statistical machines as material and technological-practical component of statistical discourse. The second extension is with regard to practices. Several Chapters account for the practical side of actually ‘doing’ statistics, creating facts and figures, completing file cards, setting up occupational classifications or code keys.

**4. On the Re-Establishment of West-German Labour
Statistics: Creating Facts and Figures and Situations
of Conflict 1949-1956**

4.1. Introduction

Having outlined the necessary background in chapters 2 and 3, I now turn to an investigation of labour statistics in post-war (West) Germany. This chapter shows how the labour statistical infrastructure was re-established in post-war Germany and how the main component, the files, became an object of debate within the BAVAV, and between state ministries and the labour administration.

As evidenced in chapter 3.4, little was found in the literature on the question of how labour statistics were implemented in the immediate post-war period. If mentioned at all, the establishment of statistics was considered a necessary by-product or self-evident tool for procuring information on the chaotic post-war period. In contrast to these findings, this chapter reveals striking continuities between the statistical infrastructure of the Third Reich and that of the post-war occupation zones and West Germany. Whereas post-war labour administrators distinguished between the practice of Nazi economic planning and proper, technical statistics, the evidence disclosed in this chapter blurs this line to subvert the distinction between the Nazi ideology and technical administration. As evidenced in Chapter 3.3, the labour administration and its statistical apparatus during the 1930s crucially developed into a powerful database for registration, detection and selection. Here, I sketch out the slow emancipation of the labour statistical infrastructure, its personnel and techniques in the 1950s from this fundamental re-organisation during the 1930s and 1940s.

In line with an analysis of bureaucratic apparatuses ‘from below’ (Chapter 2), this chapter shows how file workers went about turning myriad forms of individual economic activity into stable entities put on paper. These manual activities, I argue, were the necessary pre-condition for statistics to be produced and made intelligible. The ‘creation of facts and figures’ revealed serves as a necessary step towards an analysis of post-war German labour administration as an essential part of the state bureaucracy.

Two comparisons with the StBA labour statistical infrastructure further illustrate the nature of the BAVAV labour statistics. First, statistical machine technology – as during the Nazi period – continued to being absent from the labour

administration, despite the parallel transition from punch-card equipment to electronic data processing within the StBA and StLÄ. Second, I examine one of the central pillars of the statistical infrastructure more closely: occupational classifications. Here, I outline the central issues of a debate which reaches back to the early twentieth century in order to show how complex were statistical coding activities in this particular field, and how difficult contemporary statisticians found it to change that system. ‘German’ occupational classifications were rooted in a comparably simple bureaucratic nomenclature which was unsuitable, in the eyes of some statisticians, for a socio-economic depiction of the German working population.

The chapter begins by presenting a brief historical examination of the period between 1945 and 1950, when West-German labour market statistics were officially re-established under the auspices of the BMA. Dr Paul-Josef Maaßen’s⁹³ account on the topic serves as a useful source for the following overview. Other publications in respective BMA and BAVAV specialist journals complement this empirical material. Maaßen presented a first draft of the labour statistics to the ‘Committee of reformulation of labour market statistics for the federal territory’ (*Ausschuss zur Neufassung der Arbeitsmarktstatistik für das Bundesgebiet*) in July 1949. As one of the main actors in the immediate post-war era, he was entrusted with presenting the official account (Maaßen 1950a; 1950b; 1950c; see also Gegler 1950b). Maaßen’s chronological narrative praises institutional developments and individual achievements and eclipses any technical, political, or methodical controversies around the new (and old) labour statistics (see Chapter 3.9 for notes on the methodological caution with which such internal material should be treated). The other sections draw on archival material from the Federal Archive Koblenz and the SEAD-BA in Mannheim. A selection of published specialist and grey literature complements the archival analysis.

⁹³ Dr Maaßen then was *Regierungsrat* at the LAA Schleswig-Holstein. Despite all of Stefan Pabst’s (SEAD-BA) efforts, no further traces of him could be detected in the administrative annals.

4.2. The Re-Establishment and Nature of Labour Statistics 1945-1950

Until 1935, short-term and regular data on employees (*unselbständige Erwerbepersonen*), *Angestellte* and civil servants, and on ways to determine transformations of the labour pool, had to rely either on population censuses (conducted in 1925 and 1933), or on the membership figures of health insurances. These, however, were not classified by profession or economic branch (*Wirtschaftszweig*). Since 1903, the monthly sample testing by the trade unions (*Gewerkschaftskassen*) on behalf of the labour statistics department (*Arbeiterstatistik*) of the Imperial Statistical Office constituted the only source for a regular observation of employment until the labour identification card (*Arbeitsbuch*), together with the labour pass file (*Arbeitsbuchkartei*) as its administrative counterpart, was introduced in 1935. As evidenced in Chapter 3.3, the forced registration with local labour offices of all those who were occupied at all including self-employed persons as well as unpaid family workers, produced a comprehensive database of the employed population.

In the immediate post-war period, *Arbeitsbuchkarteien* were often destroyed insofar as they had not already been by the events of the Second World War. The earliest statistical activity after the war with regard to the labour market was the capture of persons fit for employment through labour offices within the LAA district Schleswig-Holstein in August 1945. Hamburg and Niedersachsen would follow the inventory for the purpose of reconstruction in a chaotic situation of mass migration and war destruction by the end of that year (Maaßen 1950b: 402). With the Allied Control Council decree from 17 January 1946, which brought together food rationing and registration of almost every German of working age (*im erwerbsfähigen Alter*) in local labour offices, the remaining parts of the file were re-established and adjusted. Activities within the British zone would set the pace for the following inter-zonal coordination of labour market statistical activities. By mid-1946, German and allied experts gathered at the so-called ‘German Labour and Housing Agency’ (*Beratungsstelle für Arbeit und Wohnungswesen*) within the Manpower Division in Lemgo – the precursor of the *Zentralamt für Arbeit* established between August and November 1946 – with a view to agree upon unified classifications and statistical

notions within the British zone. The first unitary labour market statistics were then introduced on 1 July 1947 within the British zone (Maaßen 1950a: 66). Once the records by way of forced registration with local labour offices were completed, a first comprehensive capture of workers and *Angestellte*, self-employed and homeworkers was undertaken (similar to the 1938 labour card survey) in September 1947 on behalf of the *Zentralamt für Arbeit*, but for the British zone only (Maaßen 1950b: 402). For the American zone, the office of the *Süddeutsche Länderrat*, sub-department ‘Social Policy’ worked towards a similar unified system. These efforts were further supported by the establishment of an ‘Interzonal Working Group Labour Statistics’ (*Interzonale Arbeitsgemeinschaft Arbeitsstatistik*) in autumn 1947. The working group was formed to establish new occupational classification and comprised representatives from all *Länder*, including those of the Russian zone and Berlin. Further, ‘formally binding definitions and uniform principles for the labour statistics were set’ (Maaßen 1950a: 66). Under the chairmanship of Dr Richard Luyken (see Appendix I), BMA *Ministerialrat*, the labour statistical issues – together with the LAÄ statisticians – were further pursued within both the *Verwaltung für Arbeit* in Frankfurt and the BMA in Bonn. A committee ‘Occupational Classifications’ (*Berufssystematischer Ausschuß*) – convening in Berlin – would develop a new classificatory system designed for the labour administration to be introduced in 1949 in the British zone, and by January 1950 – then as the *Systematik der Berufe* published under the auspices of the BMA – in all four occupation zones (see Zopfy 1951b for an expert's account). The file cards had to be re-signed following the new classification (see Volkert 1950 for the practitioner's account). The new labour market statistics for the federal territory were to be introduced simultaneously with the occupational classification in 1950. For that purpose, during the first meeting of LAÄ labour statisticians in May 1949 in Frankfurt, a Committee was formed on the reformulation of labour market statistics for the federal territory (*Ausschuß zur Neufassung der Arbeitsmarktstatistik für das Bundesgebiet*) staffed with representatives of the *Verwaltung für Arbeit* and LAÄ labour statisticians of the British and American occupation zones. Maaßen, representative of the British zone, presented a first draft of the statistics at the first meeting in July 1949. During further meetings among labour statisticians in September 1949, after corrections by *Länder*

representatives of the three West zones only, a more narrow drafting committee issued both final notification blanks and guidelines for the new labour statistics to be introduced by 1 April 1950 for the West German federal territory (Maaßen 1950a: 66; 1950b: 402).

These new labour statistics were essentially a continuation of the previous system, at least with regard to its administrative basis (the card files), its expertise (labour administrator and statisticians) and some of its classificatory infrastructure. As Maaßen explicitly stated: ‘With regard to its basic outline, classification and technique, the new statistics for the labour administration substantially draws on the previous trusted labour market statistics’ (Maaßen 1950a: 66). The placement statistics (*Statistik der Arbeitsvermittlung*), valid until the incorporation of the RAVAV into the Reich Labour Ministry in 1939 were drawn upon in particular (Maaßen 1950a: 66, in addition to the statistics of labour deployment (*Statistik des Arbeitseinsatzes*)). The latter, according to Maaßen, remained in place anyway at most LAÄ after 1945.⁹⁴ Strikingly, the 1943 ‘index of economic branches for the labour deployment statistics’ (*Verzeichnis der Wirtschaftszweige für die Arbeitseinsatzstatistik*) was kept in place (Maaßen 1950a: 67). A new occupational classification was advanced in that the new system was ordered more around individual activity (described as ‘profession’) than around economic branches (within which this activity was pursued) in order to account for the fact that professional categories and economic branches had increasingly come apart in an economy marked by a differentiated division of labour (Zopf 1951b and Galland 1956: 149f.).⁹⁵ The new system – developed under the leadership of Dr Fritz Molle⁹⁶ in a joint effort with the Statistical Central Office in view of the occupational census planned for in 1950 – was first introduced in the British zone in 1949, and a year later for the entire federal territory (BMA 1949).⁹⁷

⁹⁴ Any files from these filing systems that survived the war and the subsequent adjustments were destroyed per decree in late 1954. Any files outside the placement and employment file system of persons out of work for more than two years were supposed to be sorted out and subsequently scrubbed. See BAVAV, Ic2 (Siebrecht) to the LAÄ presidents, betr. Entlastung der Kartei durch Aussonderung nicht mehr benötigter Arbeitnehmerkarten, 2 November 1954, in: SEAD-BA 6.7.1/11.

⁹⁵ A new occupational classification had been in the making since the 1920s already but would only be deployed for the first time with the occupational censuses in 1946 and 1950 (see Zopf 1951b).

⁹⁶ Molle authored the occupational index for the labour deployment statistics in 1939 (Molle 1939).

⁹⁷ The 1949 Occupational Index bore the sub-title ‘Occupational Index for Labour Statistics’ (*Berufsverzeichnis für die Arbeitsstatistik*, BMA 1949). Since the index was dedicated to labour administration and hence aimed at the assignment of occupational titles for employees only, it should read, according to the usual pre-war

The issue of how to classify individual economic activity would occupy the administrators' minds for the following two decades (see section 4.7 below and chapter 9.4). The focus on unemployment remained central until the late 1950s, when economic policies centred on the full employment objective turned unemployment into a weak indicator for economic development (see Chapters 6 and 7). As to the other precursory classifications, statistical techniques and organisations, there was no word in Maaßen's account about the general reorganisation of labour statistics around the purpose of employment planning and labour deployment since 1934; nothing about the military mobilisation purposes for which, among others, the labour card index was developed and implemented in 1935. The re-organisation of labour statistics to identify and differentiate unemployed persons in 'deployable' (*Einsatzfähige*) and 'not fully deployable' (*Nicht voll Einsatzfähige*) in October 1936 was decontextualized as a matter of improved statistical techniques.

Maaßen regarded the new statistics as standing in a 'long tradition' lasting for more than half a century: 'they [the statistics, JM] were repeatedly confronted with difficult problems to which they always had to prove equal in technical, methodical, and organisational terms' (Maaßen 1950b: 403). In Maaßen's rhetoric, the Nazi period during which labour statistics were crucially developed and extensively deployed was nothing more than a challenge in technical and methodical organisation. The fact that much of the 'progress' in the labour statistical infrastructure was made *because* of the military and economic aims of the Nazi authorities in both the German Empire and occupied territories, was reinterpreted as a potential obstacle or threat to a labour statistical activity and profession otherwise conceived wholly concerned with scientific and technical matters: '*In defiance of* tumultuous times and changes in economic and social policy directions, they [the German labour statistics] made substantial progress' (Maaßen 1950b: 403, emphasis mine).

Essentially, the (not so) new labour statistics were organised around the unemployed as defined by the 1927 AVAVG. As Dr. Franz Gegler, labour statistician at the LAÄ Baden-Württemberg, noted. 'The number of unemployed is regarded as one of the most important symptoms of the economy because of its

demarcations, 'labour market statistics'. The fact that the choice was made for 'labour statistics' testifies the reluctance evident with respect to the 'labour market' of the Nazi period for the postwar period.

exceptionally fast and sensitive reaction to any seasonal and cyclical fluctuations' (Gegler 1950b: 108). With two million unemployed by February 1950, the 'economic, social and political threat' (Siebrecht 1950: 68) of unemployment for the existence of the state – as all labour administrators in office then witnessed with regard to the 1930/1933 situation – had become real again (see also Wilrodt 1950). In this regard, a statistics of incoming unemployed (*Zugang an Arbeitslosen*) was the only evidence that did not exist during the 1930s (Gegler 1950b; Maaßen 1950a: 68). The question about where unemployed persons came from, understood in terms of both national origin and entrance into the labour market from outside (defined as home, youth, or returning home from war or imprisonment), became particularly pertinent with millions of emigrants and refugees passing through the German national territory. More importantly still, the sharp rise in unemployment since the monetary reform in June 1948 required more accurate knowledge about the unemployed persons' whereabouts in terms of profession, economic branch, and the previous employment situation (if employed at all).

4.3. The Discursivation of the Files

Within the first months of their official rebirth the files and the statistics had to face two major tests in dealing with the wider public. One was linked to the sharp rise in unemployment in 1949/1950, and can only be alluded to in the present study. Between the end of October 1949 and mid-February 1950, following Siebrecht's (see Appendix I) calculations, the number of unemployed increased by over 700 000 (Siebrecht 1950: 68). Historically, rampant unemployment as a collective experience had stirred public interest in the nature of its components. These components – who is unemployed, where and why – since the birth of the category came to be most credibly measured and visualised by statistics (see Chapter 3.2). In connection with the greater public interest, the files and the new labour market statistics had to stand the first test with regard to doubts about their accuracy raised, as Maaßen reported, employers, by municipal representatives, and the wider public (Maaßen 1950b: 401).

The other example, which is dealt with in detail in the following sections, testifies to the extent to which the employment file, right after the defeat of the Third Reich, came to be seen as storage of valuable information on the individual. Especially the various agencies of the occupying armies considered the information on the files important for various purposes. Federal and *Länder* state ministries, as well as other public and private organisations, turned to the LAÄ for the personal information stored under their auspices. As will be shown, with regard to discussions between BMA, BAVAV and the Ministry for Postal Affairs and Communications (*Bundesminister für Post- und Fernmeldewesen*, BMPF hereafter), the notion of ‘administrative assistance’ (*Amtshilfe*) was at the centre of attention. This notion – although then loosely defined by German federal law – laid down the extent to which public bodies were supposed to assist each other for ‘state purposes’. The BMPF invoked the state as a ‘common cause’, which should allow the disclosure of information. The BMA, by contrast, leaped to the BAVAV’s defence and reserved the purpose of the files for the internal workings of the labour administration i.e., placement services and labour market observation (see Chapter 4.4 for the link between files and statistics).

The final section here itemises discussions *within* the BAVAV administrative and management boards on the future of the files shortly after the re-establishment of the BAVAV in 1952. Here, reasons of economy vis-à-vis the maintenance of the files mitigated attempts to inscribe the files – and hence justify their continuation – into federal law, especially the Federal Expellee Law (*Bundesvertriebenengesetz*).⁹⁸ Questions of whether StBA censuses were sufficient to cover the West-German employment situation stood against the imperative of single AA and LAA in knowing about institutional workings through statistical knowledge. Moreover, issues were raised of how information was best generated, either by conversation between placement officer and advice seeker, or by formal data exchange between AA, employers and other public bodies. This last section in particular points to the rather intricate decision-making process within the BAVAV self-governing bodies with regard to the files. As will be shown, with the decision of the BAVAV

⁹⁸ The federal law, issued in May 1953, regulated the rights of German refugees from Central and Eastern Europe (see Rübner and Goschler 2005: 713-716). In view of integration of refugees and expelled persons, the BAVAV was obliged to prioritise unemployed refugees and expelled persons for placement (see Schmid, Wiebe et al 2005: 295).

administrative board in August 1954 to abandon the data exchange hitherto essential for the maintenance of the employment files, the foundations were laid for a close-grained debate on the future data bases of West-German labour statistics. This debate would eventually outlast the life-span of the very object it produced, the file. Surprisingly, the essential issues raised in the 1950s would only be answered sufficiently with the introduction of a reporting system based on electronic data processing in 1972, then under very different political, statistical and technical circumstances. Debates on the employment files, as material and technical basis of labour statistics and indispensable tool for placement service are analysed in in Chapter 6. The future nature of the labour administration's statistical infrastructure is the concern of Chapters 8 and 9.

As the following work shows, with the re-establishment of the files, and especially with the foundation of the BAVAV in March 1952 and its own statistical service shortly thereafter, the question of how to build and use an information system had again become openly political. After the Nazi administrators had dreamed of a combination of punched-card census data with older local registry-based information to produce a centralised information system, the question again occurred of whether or not and, if so, how, a partial but fairly comprehensive register of personal information might be allowed to overlap with other systems. In the course of almost a decade – until May 1955 when BAVAV president Scheuble (1890-1965)⁹⁹ issued a circular, which generally prohibited LAÄ presidents and local labour offices from passing on information contained on the files – the boundaries between the file informational system, technically and legally a means for placement service and labour market information, and other registries remained contested beyond the boundaries of the labour administration (BMA and BAVAV).¹⁰⁰ Such discussions reveal the manifold administrative purposes for knowledge assembled, produced and kept up to date through the files. Analytically, thus, the files as objects of debate reveal where actors drew lines with regard to what was to be known about

⁹⁹ Julius Scheuble was head of BMA department II (Labour Market Policy, Placement Service, Occupational Counselling, Berufsbildung, Unemployment Benefit) between 1950 and 1952, before being appointed as first BAVAV president 1952-1957. He was also president of the Central Labour Office in the British occupation zone 1946-1949. See Schmid, Wiebe et al (2005: 286) and biographical notes in the Federal Archive Online edition of the cabinet protocols of the Federal Government.

¹⁰⁰ As Chapter 8 shows, these debates cropped up again when the BAVAV self-governing bodies eventually voted for the abolishment of the files in February 1963. Various state ministries and public bodies re-affirmed their concern, this time in defence of the entire file system on the brink of being scrubbed.

economically active state citizens. What was considered necessary in an administrative logic was often prohibited by federal law. Or vice versa, what made sense in terms of work simplification and organisational efficiency was foreclosed by legal obligations to report about the employment situation.

4.3.1. Filed Information between State Power and Labour Administration

Until the establishment of a statistical department within the newly-founded BAVAV, LAÄ were required to send their statistical reports and tables directly to the BMA statistical division.¹⁰¹ From late 1950, various organisations, private and public, as well as state ministries on federal and *Länder* level approached the BMA labour administrators for reasons of provision of information from the files: collection offices (*Finanzkassen*) and district court funds (*Amtsgerichtskassen*) sought information on tardy debtors. Private lawyers wanted to know where debtors were at work. Private companies addressed the BMA minister Storch¹⁰² directly to inquire into the whereabouts of former employees in debt. Several tracing services, such as the Red Cross and church-based services, sought the help of labour offices for the whereabouts of refugees, displaced persons or invalids. The Berlin case invoked by the Senator for Federal Affairs (*Bundesangelegenheiten*) is suggestive of how widespread the issue of information disclosure had become as early as 1951. He wrote to the BMA in November 1951 that ‘in Berlin the question has become burning to what extent labour offices are obliged to disclose information contained on their files to third parties’.¹⁰³ With regard to private organisations (companies and law firms), the issue was relatively easy to deal with, for the 1927 AVAVG (§204), as well as the new German Basic Law (§35), laid down that labour offices – like any other public institution – were obliged to provide ‘administrative assistance’

¹⁰¹ See for example BAVAV, IV to the LAÄ presidents, Statistische Berichterstattung, 2 May 1952, in: BAK B119/2268.

¹⁰² Anton Storch (1892-1975), Federal Minister for Labour (1949-1957). For further biographical notes, see Schulz (2005a: 9).

¹⁰³ Der Senator für Bundesangelegenheiten to the BMA, betrf.: Auskunftspflicht der Arbeitsbehörden, 19 November 1951, in: BAK B149/862.

(*Amtshilfe*) with regard to public and state agencies only.¹⁰⁴ Accordingly, the BMA administrators invoked these principles enshrined in federal law to turn down the inquiring parties' requests. Further, the 'mutual relationship of trust' (*gegenseitige Vertrauensverhältnis*) between labour offices, employers and employees was referred to as essential to the internal workings of the labour administration to be protected against such requests from outside.¹⁰⁵

With regard to superior norms, such as the 'purpose of the state' (*Staatszweck*),¹⁰⁶ brought into the discussion by Ernst Lemmer (1898-1970), Minister for Postal Affairs and Communications in a series of letters to the BMA between March 1955 and October 1957, the BMA officials could not refer so neatly to the private-public division invoked by legal codes within which administrative assistance was embedded. The Minister for Postal Affairs and Communications essentially urged labour offices to cooperate with postal agencies in an effort to detect defaulters concerning radio and television licence fees. With reference to this case, the question was debated over how far state administrations were supposed to reach into private lives. Through the nature of administrative assistance, and the files as its technical underpinning, different conceptions of the German state can be detected here. The BMPF defined the debt collection as a state purpose and urged the labour offices to assist in this endeavour by disclosing individual information contained on the files. The obligation to assist thereby, was only insufficiently regulated by federal law, but could be, following Forsthoff's (see Appendix I) standard textbook (Forsthoff 1950/1973, as referred to by the BMPF)¹⁰⁷ derived from an obligation. This obligation, 'results from the fact that all agencies as state agencies are required to serve a common cause, their division of competences notwithstanding'.¹⁰⁸

¹⁰⁴ See the early note by BMA Iib4 (Oberregierungsrat Becker) to the Badische Minister für Wirtschaft und Arbeit, 12 January 1951, in: BAK B149/862.

¹⁰⁵ See, for example, the BMA (Iib2) responses to Rechtsanwalt Schaefer, 17. December 1955, and to the Firma Fränkischer Eisenhof in Bamberg, 11 May 1956, in: BAK B149/862.

¹⁰⁶ Bundesminister für das Post- und Fernmeldewesen to the BMA Storch, Amtshilfe durch die Arbeitsämter, 2. Oktober 1957, in: BAK B/149/862.

¹⁰⁷ Forsthoff's famous 1950 *Textbook of Administrative Law*, written while banned from academic work and teaching, gained considerable importance in the early years of the Federal Republic of Germany', (Meinel (2007: 789). We will return to Forsthoff's work further below in the context of *Daseinsvorsorge*.

¹⁰⁸ Forsthoff as cited in Der Bundesminister für das Post- und Fernmeldewesen to the BMA, 14 August 1956, p. 3., in: BAK B149/862.

The BMA's strategy, by contrast, was to draw a line around the employment files as 'internal technical instrument of labour offices'.¹⁰⁹ Thus defined, the information contained was never supposed to be gathered for any other purpose than placement services and observation of the labour market. A superior common good other than these two was unjustifiable with reference to the files. To the contrary, to define such common cause on their behalf would be equal to 'a misappropriation of official documents'.¹¹⁰ Thus, the BMA rationale essentially respected the BAVAV self-governing prerogatives. Where the BMPF evoked norms of state power for its own purposes, the BMA respected the administration of labour – and the files as its technical means – as a matter of social partners. This had not always been the case. During the totalitarian state, the RAVAV lost its independence in 1938 and 1939 and was incorporated into the Reich Ministry of Labour. Following the re-establishment of the labour administration after 1945, employer and trade union representatives were determined to keep state government out of the federal office's organisational structure marked by the authoritarian threat that had come with it in the past. As outlined in Chapter 3.4., the BAVAV governing structures eventually followed a tripartite model, by which employers, trade unions and the public body were represented.

4.3.2. Drawing Legal and Organisational Boundaries Around the Files

Within the BAVAV self-administrative bodies, the employment files became an issue shortly after the foundation of the BAVAV in March 1952. During an administrative board meeting in September 1953 the question cropped up as to whether or not the files were needed to assist in placing unemployed displaced persons and so could be justified in the context of the *Bundesvertriebenengesetz*, the Federal Expellee Law.¹¹¹ The executive board meeting in November 1953 raised the same question in the context of whether or not the tasks of the federal office were

¹⁰⁹ BMA (Iib2, Becker) to the BMPF, betr.: Erteilung von Auskünften aus der Arbeitnehmerkartei (Entwurf), October 1956, in: BAK B149/862.

¹¹⁰ BMA (Iib2, Becker) to the BMPF, betr. Amtshilfe durch die Arbeitsämter (Entwurf), October 1957, in: BAK B149/862.

¹¹¹ BAVAV, Auszug aus dem Ergebnisprotokoll über die 12. Sitzung des Verwaltungsrats am 16./17.9.1953, p. 35 in: SEAD-BA 6.7.1/11.

dependent on such a filing system at all.¹¹² A comprehensive report by the executive board on the ‘positive effects of the continuation of the files for the BAVAV’ had answered this question in the positive in the previous month.¹¹³ During that same meeting, an executive board commission ‘employment files’ (*Vorstandskommission Beschäftigtenkartei*) was implemented, consisting of employers’ and employees’ representatives (Walter Henkelmann as employees’ representative to the executive board, see Appendix I) and public bodies as well as BAVAV experts, among them Dr Erwin Schönefelder (see Appendix I).¹¹⁴ Their task was mainly to find out on the ground – the AA Nuremberg was visited – how important the files in fact were for placement, insurance and statistical purposes.¹¹⁵ The committee’s composition made a unanimous vote on the matter unlikely: As is discussed in greater detail in Chapter 6, local practitioners in general advocated a continuation of the files, whereas BAVAV high-rank officials inclined to the contrary. Comprising both representatives of the tripartite self-governing bodies (employers, employees and public bodies), as well as local labour office practitioners, decisions were probably taken by majority rule. The committee’s first meeting came to the general conclusion that a continuation of the files was only justifiable for the purpose of placement service. Other reasons, whether statistical or those brought forward by other public bodies, were not considered valuable for continuing the file system.¹¹⁶

The second meeting of the committee in July 1954 revealed the members’ rather unequivocal stance towards the future of the files: representatives of the tripartite self-governing bodies deemed StBA occupational and industrial censuses sufficient coverage for the federal office’s demand for numerical information about the labour market, whereas local practitioners – in an appendix to the same protocol

¹¹² BAVAV, Auszug aus dem Ergebnisprotokoll über die 23. Sitzung des Vorstands am 20.11.1953, p. 40, in: SEAD-BA 6.7.1/11.

¹¹³ BAVAV, Ic2, Sitzung des Verwaltungsrats-Ausschusses für allgemeine Fragen am 26. 10.1953, in: SAED-BA 6.7.1/11.

¹¹⁴ Further, the LAÄ and AÄ were represented by one official of LAA North Bavaria, and two of the AA Nürnberg respectively, see BAVAV, Ergebnisprotokoll über die erste Sitzung der Vorstandskommission für die Beschäftigtenkartei am 18.3.54, 14 May 1954, in: SEAD-BA 6.7.1/11.

¹¹⁵ The Committee only met three times between March and October 1954. The October meeting was essentially pointless because crucial decisions on the future of the files had already been taken. See BAVAV, Kommission für die Beschäftigtenkartei, Ergebnisprotokoll über die 3. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 26.10.54, 27 January 1955, in: SEAD-BA 6.7.1/11.

¹¹⁶ BAVAV, Ergebnisprotokoll über die erste Sitzung der Vorstandskommission für die Beschäftigtenkartei am 18.3.54, 14 May 1954, p.7., in: SEAD-BA 6.7.1/11.

– considered them insufficient.¹¹⁷ Various other issues in connection with the files remained unresolved at this point (see Chapter 6). In the name of the representatives of the tripartite BAVAV self-government, the July meeting suggested the discontinuation of the employment files. The placement files, in order to be kept up to date for counselling services, were to be maintained. A final decision was offered to the administrative board.

Its decision came promptly. On 6 August 1954, the board, in the name of Dr Siebrecht (simultaneously head of BAVAV department I), instructed local labour offices, for reasons of administration cuts, to abandon the data exchange hitherto essential to the maintenance of the employment files.¹¹⁸ Exchange of information by registrar's offices on marriages, divorces, changes of name, and deaths; by the authorities on civil servant entrances and retirements; by trade offices (*Gewerbeämter*) on commencements and termination of self-employed work; by judiciary bodies on forthcoming discharges of inmates to be reinserted into the labour market; and by health authorities (*Gesundheitsbehörden*) on the detection of 'permanent bacillus excretors' (*Bazillen-Dauerauscheidern*) in connection with typhoid and dysentery were discontinued.¹¹⁹ With the decision by the administrative board – put into practice by circular to all LAÄ presidents the following day¹²⁰ – the data basis of the file was supposed to be procured exclusively by 'conversations during counselling service and information given by the job-seeker himself' (*aus dem Vermittlungsgespräch und den eigenen Angaben des Arbeitssuchenden*).¹²¹ Any notifications by employees or public bodies that would bypass counselling sessions in local labour offices were discredited. From a statistical point of view, the administrative board's decision thus weakened the data basis to the effect that the statistics derived from it were put at risk: individual *Berufs- and Arbeitsschicksal*

¹¹⁷ BAVAV, Ergebnisprotokoll über die 2. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 6.7.1954, 26 October 1954, especially p. 10-12, in: SEAD-BA 6.7.1/11. See 'Gesichtspunkte für die Beruteilung der Beschäftigtenkartei' in the appendix *ibid*.

¹¹⁸ See Appendix 1 to BAVAV Ic2, Sitzung des Vorstandsausschusses für Grundsatzfragen am 22. Oktober 1954 for the wordings of the administrative board decision 348, in: SEAD-BA 6.7.1/11.

¹¹⁹ With this decision *Länder* legislation and RAVAV decrees, some reaching as far back as to the Prussian times in 1905 were annulled. Decrees on epidemics control issued in behalf of the RAVAV dated from 1929. Others on the placement of tubercular employees were mostly issued during the 1940s and re-affirmed in the immediate after-war period by some *Länder* governments. See Appendices 1-4 to BAVAV Ic2, Sitzung des Vorstandsausschusses für Grundsatzfragen am 22. Oktober 1954, in: SEAD-BA 6.7.1/11.

¹²⁰ See BAVAV, der Präsident, an die Herren Präsidenten der LAÄ, betr. Führung der Arbeitshmerkartei, 7. August 1954, in: SEAD-BA 6.7.1/11.

¹²¹ See Appendix 1 to BAVAV Ic2, Sitzung des Vorstandsausschusses für Grundsatzfragen am 22. Oktober 1954, p.2, in: SEAD-BA 6.7.1/11.

(the employee as a person and the participation of the employee in working life, see section 4.3 below) could no longer be reflected accurately in the personal files. Actual deaths produced their administrative counterpart, the ‘ghosted’ card, the employee who exists only on paper (*Karteileiche*, literally: file corpse); women were lost track of after marriage and the concomitant change of name; and transition into self-employment went unnoticed: all of these cases would slowly produce an inflated file.

The BAVAV executive board in July 1954 already doubted that the future of the file was the responsibility of the administrative board. In line with the federal legislative initiatives (§24 of the 1951 Employment Protection Act, and a respective paragraph in the ‘great amendment’ to the AVAVG in planning stage: see section 4.3.1 below), the executive board defended the files as the basis for the labour statistics considered ‘one of the most fundamental and important statistics in the federal republic’, but refrained from a final decision about their continuation until further notice pending an expected report under the auspices of the ‘Federal Commissioner for Efficiency’ (*Bundesbeauftragten für Wirtschaftlichkeit*).¹²² Irrespective of such hesitation, the administrative board – without anticipating the executive board’s final decision, as its members also acknowledged¹²³ – ordered several decrees in view of work simplifications in connection with the files between November 1954 and June 1955.

A decree in November 1954 ordered the elimination of files of persons neither employed nor unemployed as a consequence of which roughly twelve million file cards were pulped.¹²⁴ The BAVAV Executive Committee Responsible for Legal and Administrative Issues (*Vorstandsausschuss für Rechts- und Verwaltungsfragen*), in June 1955, voted for the re-organisation of the employment files. For the purpose of work simplification, the files were continued as placement files only comprising two sections (see section 4.3.1): one for job seekers and one for employed persons (worker and *Angestellte*); the latter was given the name of a dormant file (*ruhende Kartei*).¹²⁵ That same time, the LAÄ were supposed to order a singular adjustment of

¹²² BAVAV IVa1, Sitzung des Vorstandes am 21.3.1956, p.2, in: SEAD-BA 6.7.1/11.

¹²³ BAVAV, Ic2, Sitzung des Vorstands am 6. Juli 1955, betr. Arbeitnehmerkartei, p.7, in: SEAD-BA 6.7.1/11.

¹²⁴ BAVAV, Ic2, Sitzung des Vorstands am 6. Juli 1955, betr. Arbeitnehmerkartei, in: SEAD-BA 6.7.1/11.

¹²⁵ BAVAV, Ic2, an die Herren Präsidenten der LAÄ, Vermittlungskartei, June 1955, in: SEAD-BA 6.7.1/11.

the remaining files within the dormant files of employees:¹²⁶ In a huge effort planned to last an entire year, every file in the dormant section was supposed to be checked in terms of accuracy and completeness of information (especially those characteristics filled in on the back of the file such as contemporary employer, employment situation, and occupational code). As will be shown in Chapter 8 and 9, further adjustment efforts – inconceivably elaborate – would follow in the course of the discussions.

For BMA labour administrators, the decisions by the BAVAV administrative board from August 1954 were unsupportable. In March 1956, the Federal Minister of Labour and Social Order Anton Storch intervened in the decisions of the self-administration, charging the BAVAV with ensuring continuous statistical reporting by the usual spatial and functional breakdown.¹²⁷ As long as there was no other monitoring system in place for the national labour market, the files as the basis of the labour market statistics were indispensable for BMA administrators.

By the mid 1950s, the future of the files – due to their entanglement with administrative practice and legal requirements – was still pending. The fact that the BAVAV self-governing bodies as well as the BMA adopted rather antagonistic views on what the file's purpose was further complicated the matter. The files and the statistics, however, continued being produced and were kept up to date by thousands of file workers and clerks in 569 subsidiary districts (*Nebenstellenbezirke*), and 157 local labour office districts across the West German territory. The following sections look at how they went about producing facts and figures about individual economic activities.

¹²⁶ BAVAV, Ic2, An die Herren Präsidenten der Landearbeitsämter, betr.: Vermittlungskartei, Überprüfung der Vollständigkeit, in: SEAD-BA 6.7.1/11.

¹²⁷ BMA, Ilb2 to the BAVAV President, betr.: Aufrechterhaltung der Arbeitnehmerkartei, 21 March 1956, in: SEAD-BA 6.7.1/11.

4.4. Creating Facts and Figures: The BAVAV Labour Statistics as an Ordered Instrument of Order

The importance of the file system was evident not only in the fact that files, in least in some zones, were swiftly re-established and adjusted only several months after May 1945. Its importance and expertise that had eventuated by this time to mark its construction was evident also in the extraordinary discussions about questions of method for producing and arranging the employment files. This section, first, reveals how the employment statistics were actually produced within local labour offices and hence aggregated, and made credible through comparison with other statistics. Secondly, the nature of the alphabetical order, and hence the Latin alphabet (in its German written version) is shown as a means to order the manifold of individuals' names and the information about them within a space distinct and distant from the actual context within which economic activities were pursued. The purpose of this section is to reveal the actual administrative practices that were in place in order to produce both the employment files and the labour statistics derived. More generally, as mentioned in section 2.4, the analytical focus here on administrative paperwork and the bureaucratic practices attached to it serves to illustrate particular state forms. It will be shown how much of what is considered an objective and valid representation of the employment situation in a set of statistics at a given time in a given place depended on various kinds of standard and standardising textual forms emanating from administrative practices. These practices aimed at translating the information gained during 'direct contact' (e.g. at the counselling sessions for placement) into standardised forms, thus stabilising the myriad of individual cases into a limited and thus manageable number of 'marks' that circulate as 'immutable mobiles'. The production of actual statistics also required particular counting procedures building on the aforementioned writing techniques. Deploying a Latourian framework for this section is – notwithstanding the theoretical problems noted (see Chapter 2.4.2) – valuable in showing how diverse knowledges and practices became factual.

4.4.1. Creating the File (*Arbeitnehmerkartei*) and the ‘Occupational Personality’

The statistics were produced on the basis of administrative file cards (*Arbeitnehmerkartei*, AK hereafter) generated for labour administrative purposes (above all for placement activities for unemployed persons, job hoppers or the like) prior to and, to a certain extent, independent from statistical observation. Thus, the statistical information derived from counting the individual files depended largely on procedures foreign to the statistical logic. Most importantly, the groundwork for these local statistics depended on certain procedures to procure the data in the first place, involving employees, employers, health, and unemployment insurance agencies. The respective procedures were enshrined in federal law and respective decrees and comprised of a complex flow of official documents and information. By way of the *Employment Protection Act* from August 1951, valid for the entire federal territory, the 1939 *Arbeitsplatzwechselverordnung* and its re-enactment through the Allied Control Council decree was formally annulled. An analogous nexus between legal control, administrative realisation, and statistical capture, however, made sure that labour offices would not lose track of the labour market movements under the new law: § 24 of the 1951 *Kündigungsschutzgesetz* regulated the employers’ duty to give notice (*Anzeigenpflicht*) on pain of penalties.

A complementary implementing rule followed in September 1954, specifying which categories of employees were to be reported,¹²⁸ and introducing uniform registration forms (*einheitliche Meldevordruck*) varying according to the categories mentioned. The legal grounds were laid for local labour offices to be notified about every job change. With regard to de- or re-registration for health or unemployment insurance, the labour offices were automatically notified, a mechanism that ideally neatly exploits the interests that labour administrators believed to be inherent in the respective position of employees or employers: the former was believed to have an interest in registering with the health or unemployment insurance, the latter in a timely deregistration since, otherwise, contributions were to be paid beyond the period of employment. In 1957, §24 *Kündigungsschutzgesetz* was replaced by §53

¹²⁸ Employees under compulsory health insurance were registered through the local health insurance, which would pass the file on; a similar procedure was in place for *Angestellte* insured against unemployment; all the remaining employees (*Arbeitnehmer*) were registered through ‘Notifications of Commencement and Termination of Employment’ (*Einstellungs- oder Entlassungsanzeigen*). Cf. Galland (1956: 29).

AVAVG introducing notifications (*Einstellungs- und Entlassungsanzeigen*), thus explicitly creating the legal basis for an employment file.¹²⁹ As the governmental note (*Regierungsentwurf*) indicated, §53 AVAVG ‘essentially takes on § 24 Kündigungsschutzgesetz from 10 August 1951 for legal systematic reasons’.¹³⁰ This genealogy – 1946 Allied Control Council Decree, 1951 §24 Kündigungsschutzgesetz, 1957 §53 AVAVG – describes the legal and administrative measures put in place to guarantee the management of an employees’ file, which, as the governmental commentary put it ‘was indispensable for reasons of labour market and economic policies’.¹³¹

As was made clear in Chapter 2.4, the information, ultimately, became usable for statistics only because the coding was undertaken according to general rules, inscribed in standardised textual forms, such as the questionnaire, classificatory systems, and legal texts (i.e., labour law making different social groups equivalent in their relation to the work they do). The individual records of the AK were based on a *questionnaire* the employed person was asked to fill in, the information from which was, subsequently, to be confirmed by the employer. With regard to the administrative coding of the individual’s employment situation according to profession and economic branch (*Wirtschaftszweig*), *classificatory systems* were pivotal, enshrined in the so-called *Berufsverzeichnis für die Arbeitsstatistik*, mostly elaborated on an international level, and the *Verzeichnis der Wirtschaftszweige für die Arbeitsstatistik, 1951*. The respective placement officer had to fill in the profession and economic branch according to the registers bearing the respective reference numbers (Galland 1956: 41). Further, the information contained on the individual file depended on *legal categories* which define who is actually to be included in the file. Administrative expertise and resources involved, let alone the sheer paperwork necessary to maintain the system, were immense. A 1954 report by

¹²⁹ The wording of §53 AVAVG para. 1 goes as follows: ‘Der Arbeitgeber hat die Einstellung und Entlassung von Arbeitnehmern sowie der zu ihrer Berufsausbildung Beschäftigten binnen drei Tagen dem Arbeitsamt anzuzeigen, in dessen Bezirk der Betrieb liegt. Die Anzeigen für Arbeitnehmer, die zur Mitgliedschaft bei Orts-, Land- oder Innungskrankenkassen verpflichtet sind, sowie für nichtkrankenversicherungspflichtige Angestellte, für die Beiträge zur Arbeitslosenversicherung an Orts-, Land- oder Innungskrankenkassen entrichtet werden müssen, sind zusammen mit den An- und Abmeldungen für die Kranken- oder Arbeitslosenversicherung an die Krankenkassen zu richten. Die Krankenkassen sind verpflichtet, die für die Arbeitsämter bestimmten Anzeigen an diese weiterzuleiten.’ As the commentary to the AVAVG put it, ‘§53 dient dazu, um dem Arbeitsamt eine Übersicht über die freien und besetzten Stellen zu verschaffen und ihm so die Führung einer entsprechenden Kartei zu ermöglichen’, see Krebs (1957: 175).

¹³⁰ Bundestagsdrucksache 1274, 1956, p. 354.

¹³¹ Begründung zum Regierungsentwurf, Bundesratsdrucksache Nr. 358/54, p. 108.

the BAVAV executive board's commission 'employment files' estimated roughly 2332 *Karteikräfte* concerned with the files proper (distributed over the AÄ and referring to employment and tracing files). A further 1000 clerks were employed for errands, the actual counting etc.¹³² These figures probably remained constant until the abolishment of the files in 1963. In 1962 still, roundabout 2465 *Karteikräfte* proper were in charge of the files.¹³³ An article of the trade union journal *Welt der Arbeit* estimated that overall 3500 BAVAV *Angestellte* were employed to maintain the files.¹³⁴ These figures did not quite match those of the Nazi period: Maier reports that, between spring 1935 and late 1936, 4300 additional staff were employed at the AÄ to issue and maintain the labour book (Maier 2004: 103). But still, the administrative efforts were sufficiently huge for representatives of the BAVAV self-governing bodies to repeatedly lament about the manpower resources bound up (see Chapter 6.3).

Almost every labour office disposed of an employment file comprising of essentially two sections: the main file (*Hauptkartei*) and the placement file (*Vermittlungskartei*) whereby files (*Arbeitnehmerkarten*) of persons employed were filed in the first, and those of unemployed in the second section. A third file, the so-called 'tracing file' (*Suchkartei*), ordered by alphabet, served to identify the place of the single file cards in either the employment or placement file. There was an in-built spatial location of human labour since (almost) every local labour office maintained such files, with the effect that the labour market was represented 'from below'. Supply and demand, if they were to be effected through labour offices and their file systems, were hardly exchanged over great distances.

Looking more closely at the blank example AK 1, issued at the federal office in June 1954,¹³⁵ information filed referred both to the *employee as a person* and the *participation of the employee in working life*.¹³⁶

¹³² See BAVAV, Ergebnisprotokoll über die 2. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 6.7.1954, 26 October 1954 in: SEAD-BA 6.7.1/11.

¹³³ See BAVAV, Sitzung des Vorstandsausschusses für Rechts- und Verwaltungsfragen, 6 November 1963, Betr.: Einstellung der Beschäftigtenkartei, 28. October 1963, p.9, in: BAK B149/6123.

¹³⁴ see article 'Blank fordert die Fortführung der Beschäftigten-Kartei aus NS-Zeit', *Welt der Arbeit*, 5 February 1960.

¹³⁵ File copied from the Federal Archive Koblenz, BAK B149/6123. AK is the acronym for *Arbeitnehmerkartei* (Employee's file). Until the BAVAV issued this file to be used across the entire federal territory, files differed across LAÄ, see BAVAV Ergebnisprotokoll über die 1. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 18.3.1954, p.2, in: SEAD-BA 6.7.1/11.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29								
anerkannt als												Ausl. Staatenl.				befristet bis				3	4															
Wohnort												Familienname												Beruf				8	19	20						
Straße u. Nr.												Vorname				led. verh.		minderjäh. Kinder				ärztliche Befunde				9	10	21								
Beruf												durch				Geburtsdatum				- ort		- kreis		- land		letzte Untersuchung durch AA-Arzt am				11	21					
Bemerkungen												Schulabschluss												Kenntnisse und Fertigkeiten				12	13	14						
												von — bis		Lehre, Anlernung, sonst. Ausbildung				als						15	16	17										
												Berufs-, Fach-, Hochschulprüfungen												Fremdsprachen				18	19	20						
												Berufliche Bildungsmaßnahmen																21	22	23						
												Maßnahmen zur Förderung der Arbeitsaufnahme																24	25	26						
												Erwerbsbehinderung																27	28	29						
												Rentenzelchen				Art der Rente				0/0				Führerschein				30	31	32						
AK 1 Hauptstelle (Juni 54)												Nr. des AA		gefertigt erneuert am		Handzeich.		Doppelkarte in		ab Alu DM		ab Alfu DM		Stamm-Nr.		geprüft		Bearbeitungsabschnitt seit		23	24	25	26	27	28	29

Scan 4.1. *Arbeitnehmerkartei (AK)*, issued by the BAVAV in June 1954¹³⁷

The first sequence of information was contained on the first page, the other on the reverse page. On the top page, we find the spaces for the more common personal information, which first, identified the ‘case’ as a state citizen of German or other nationality, in the latter case the conditionality of the status with regard to time was sought. Further, place of residence, family name, profession, date of birth and location as well as marital status (unwed, married, divorced, widowed) and number of children had to be filled in. More detailed information was sought on the educational life of the ‘case’, such as graduation, apprenticeship, practice (*Anlernung*) or other training, whether or not entrance qualifications for (technical or vocational) college were obtained, or vocational training measures, employment promotion measures assigned. Further, any hindrances in the working life, such as whether or not any condition interfering with gainful work existed (*Erwerbsbehinderung*), or, with regard to the person’s retired life, what kind of

¹³⁶ See for this distinction, Vermerk, BMA (Ib2,) ORR Schmidt, ‘Forführung der Beschäftigtenkartei’, 31 December 1959, in: BAK B149/12324.

¹³⁷ Taken from BAK B149/6123.

I was unable to get hold of a copy of the labour file card (*Arbeitsbuchkartei*) invented and deployed during the 1930s and 1940s so that a proper comparison between the two versions cannot be undertaken here. Chapter 3 showed with respect to the workbook that slots for the occupational history were requested. The books further contained basic personal information on age, place of birth and residence, marital status, number of children, as well as on training (apprenticeship, technical training, agricultural skills, and special skills, such as driver's licence for motor vehicles or airplanes) and previous occupations. Occupational group and kind of current profession were also asked for (in code numbers).

The first meeting of the executive board commission 'Employment File' in March 1954 already came to the conclusion that the employment file could only be continued under the condition of a 'considerable simplification' (*erhebliche Vereinfachung*).¹³⁸ The work book system must be abandoned, was the credo of the members. The new employment file was only supposed to contain information necessary for the actual task of the placement officer: all indications had to be concerned with the employment situation, excluding personal details, such as death or other changes in the civil status of a person.¹³⁹ The employment situation, as the AK above testifies, was of course a malleable notion, and, surprisingly, the file continued to ask for personal details, to be disclosed either by the client herself during placement services, or by various state agencies involved in the data transfer. Further, slots for the occupational history contained in the work book were adopted for the reverse side of the 1954 file card (see above). Chapter 6 will further scrutinise the debates that arose from these opposing policies.

Following Henkelmann's remarks during a 1961 meeting among BAVAV and BMA administrators, information about the 'course of work' (*Arbeitsschicksal*) since the end of the war were supposed to be disclosed by the jobseeker (whether unemployed or changing job) herself during placement sessions.¹⁴⁰ During Nazi times, the individual did not have the same control over his or her personal and occupational details; information rather was exchanged directly between employer

¹³⁸ See BAVAV Ergebnisprotokoll über die 1. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 18.3.1954, p.6, in: SEAD-BA 6.7.1/11.

¹³⁹ See BAVAV Ergebnisprotokoll über die 1. Sitzung der Vorstandskommission für die Beschäftigtenkartei am 18.3.1954, p.6, in: SEAD-BA 6.7.1/11.

¹⁴⁰ BMA; IIa3, Weiterführung der Beschäftigtenkartei der BAVAV, 25 Juli 1961, p. 9. In: BAK B149/6123.

and the AÄ. With reference to the post-war AK, indications on insurance and employment status still remained a matter between AÄ and employer, at least until 1954 (see Chapter 6).

The entire file in each labour office is structured according to *Berufsgruppen* (groups of profession) and within them, according to profession and by alphabetical order by name. Whenever it comes to counting the employed persons, the most important marker is the type of business (*Art des Betriebs*) from which the economic branch follows. Counting the unemployed, by contrast, puts the marker ‘profession’ first. The ‘course of the profession and of work’ (*Berufs- und Arbeitsschicksal*) – that is, the movement of the individual employee on the labour market, as well as his personal fate in terms of choice of profession, life and death, health and illness – was simulated by the movement of the file. Each file was moved manually between the two sections by the placement officer (*Vermittler*) or a respective ‘file clerk’ (*Karteikraft*): Galland (1956: 48) described this process: ‘There is a constant exchange between these two sections. Besides, the pools of files constantly change by access of persons who hitherto were not active as employees (e.g., school graduates, migrants etc.) and by leavings as a consequence of death, outward migration, transition into self-employment, disablement etc.’.

The files, in connection with respective legal regulations, contained the ‘occupational identity’ of the following employees (cf. Galland 1956: 30f.): workers (following compulsory unemployment insurance according to § 69 AVAVG),¹⁴¹ *Angestellte* as a particular German legal and occupational category (encompassing salaried employees, such as engineers, management as well as administrative, educational and scientific professions),¹⁴² and civil servants (*Beamte*),¹⁴³ which were still contained in the files remaining from the compulsory registration of the 1930s. As Galland (1956: 32) further remarked, however, ‘a continuous registration of the civil servants’ population and its variance is not secured by the employment files. Outflows due to death are partly captured, but not those resulting from reaching the

¹⁴¹ §69 AVAVG reads as follows: (taken from Krebs 1957: 20): ‚Die Versicherungspflicht beginnt mit dem Tage des Eintritts in die versicherungspflichtige Beschäftigung oder mit dem Erlöschen der Versicherungsfreiheit’.

¹⁴² See Kocka (1981) for a classical historical study on *Angestellte* as a social category.

¹⁴³ From subsequent discussions on the notion of ‘employee’ during the 1960s, I gather that *Beamte* were put in a separate file section containing only half of the civil servants verified within the German territory. See, for instance, BAVAV, IVb3 an den Herrn Bundesminister, Betr.: Definition des Begriffs ‘Beschäftigter’ in der Statistik, 13. Juli 1962, in: BAK B149/12324.

age limit or other reasons of resigning (e.g. redundancy)'. The BAVAV employment statistics essentially tracked those employees in relationship of dependency according to labour law, on the basis of which they were subjected to compulsory health or *Angestellten* insurance. The employment files were kept up to date both by notification of the employment situation, following the §24 Employment Protection Act, and, since 1957, §53 AVAVG, and by compulsory insurance of certain activities (National Insurance Act (*Sozialversicherungsgesetz*), *Angestellten* insurance act (*Angestelltenversicherungsgesetz*)), the status of which was to be transferred to the local labour offices. Certain social groups were not meant to be categorised in the files and so did not appear in the statistics. These were part-time employees (*Teilbeschäftigte*) such as pensioners, housewives or students; the marginally employed (*geringfügig Beschäftigte*) exempt from compulsory unemployment insurance and working less than twenty-four hours per week; vessel crews, soldiers, and children under fourteen.

4.4.2. Creating the Statistics and Making (Un-)Employment Visible: Announcing, Tallying and Counting

Making employment and unemployment visible through presentable, readable and combinable textual forms (as so counted, subsumed and then aggregated) can be seen to 'mobilise' further resources on a larger scale. In terms of a cultural history of state administration, these procedures show how much of administrative and, ultimately, state action was based on a manual counting of files conducted by hundreds of administrative clerks or other *Angestellte*, mostly women. Following either a fixed monthly schedule or on demand by the federal labour office (via express letter (*Schnellbrief*) or circular (*Runderlass*)), women in the file sections within the placement area sat down and counted according to two different procedures, depending on local conditions (Nothaas 1948: 21; Galland 1956: 49f.; Kellerer 1960: 33f.),¹⁴⁴ and by varying characteristics, such as employees per economic branch or unemployed persons.

¹⁴⁴ See Appendix for information on all mentioned authors.

According to the tally method (*Strichmethode*),¹⁴⁵ two persons acted together in that one ‘announced’ the characteristics to be counted (announcer or *Ansager*), and the other made sure the streaks were put onto the prepared lists (tally clerk or *Strichler*): ‘The announcer removes every single file from its filing box, and calls out to the tally clerk the information that he then is supposed to put on the list by vertical lines/dashes’ (Galland 1956: 49). These primitive counting measures produced fairly quick results. The counting process, however, could hardly be randomly double-checked. The AK had to be put back into its file as soon as possible in order not to interrupt normal filing activities. The information on the AK was translated into a simple dash on a separate list; a control *ex post* to see whether the dash was put in the right column was not possible since the AK would have already been put back.

This second procedure was different. The ‘count sheet method’ (*Zählblattverfahren*), introduced precisely for better control, worked with a count sheet (prepared for every single AK), ‘a little handy form’ (*kleiner handlicher Vordruck*) (Galland 1956: 49), named and with different boxes to be ticked according to the characteristics counted. The procedure was introduced into labour statistics in 1944 with a view to work simplification. It partly emulated machine-based (Hollerith) counting and tabulating where count sheets were used to cross-check the punch-cards (Schellenberg 1944). In this method, the announcer and tally clerk also formed a team. As Galland emphasised, symptoms of fatigue and sources of error were more easily avoided by work in pairs. Potential faults were probably less problematic in this case, since cross checks between file and count sheet were possible as long as the file was kept outside the filing cabinet, so that files and list could be tallied with each other (Nothaas 1948: 21). Once the AK had been reproduced by its characteristics on the count sheet, it could be put back quickly where it belonged. The actual tallying (*Auszählen*) of the count sheets seemed to have followed a more plastic procedure than in the above listing. It happened by a ‘laying method’ (*Legeverfahren*) whereby sheets with the same characteristics were

¹⁴⁵ Peters (2001: 440) points out that etymologically tallying and telling are closely related: ‘*To tell* is both to count and to narrate; to recount an event, or offer an account, are to offer stories; a *tale* is related to a *toll* and a *tally*’. Also in German, *erzählen* (tell) and *zählen* (count) share a very similar etymology. As we will see in the remainder of this chapter, the stories told from the files, the *account* given of the employment situation were inevitably both numerical and narrative.

piled up as a small heap, and subsequently counted down. Usually, as Galland emphasised, only one characteristic could be counted, since every new characteristic required operatives to re-arrange the sheets in different layers. The figures ascertained were transmitted by phone or by post (depending on the urgency) to the higher-level office (from the AÄ to the district office, from there to the LAÄ, and occasionally from there to the BA), where they were summed, and tabulated according to counting instructions.

This procedure reveals how much of the statistical production depended on the meticulous announcing, tallying and counting by file workers and tally clerks. The previous section showed that the statistical activities were based on individual files as textual forms. ‘Counting the employed is technically based on the employees’ file’, as Galland (1956: 37) summarised. As statistics officers (*Referenten*) at the local labour offices concluded at their 1961 meeting, ‘the employees’ records are considered a tool for placement to be managed within the placement sections of local labour offices’.¹⁴⁶ With respect to the daily routines and practices of local placement officers, the file was found necessary to dispose of ‘a significant level of validity’ (Schönefelder 1964: 148). With respect to the statistical information constructed from the file, tallying up the employees would technically have been possible since the files were believed to be up-to-date, and contained characteristics attributed both to the *employee as a person* (gender, age, family status, place of residence and work, as well as profession), and the *participation of the employee in working life* (employment status and employment by profession und economic branch). Thus, technically, the BAVAV’s statistical gaze covered 569 subsidiary districts (*Nebenstellenbezirke*), 157 local labour office districts, ten LAA districts (which geographically coincided with the territory of the *Länder*, apart from the Bavarian case, which was sub-divided into Northern and Southern Bavaria), and by the federal space (cf. Galland 1956: 37-8). Both files and statistics attempted to describe the labour market from the bottom-up, ‘without a gap’ and in as detailed a manner as possible, with information broken down by region and by economic branches, by professions, age, gender and in combination of these characteristics (see Chapter 6 for further discussion). Practically, however, this endeavour was

¹⁴⁶ Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern am 28. und 29. November 1961 in: BAK B149/12324.

considered not feasible on a regular basis and was too expensive, since the exhaustive counting activities had to fit within the usual service operations of local labour offices without hampering the daily routines. The statistics for employed persons (*beschäftigte Arbeitnehmer*) by gender were only produced on a quarterly basis between 1951 and 1954, and after 1955, only twice a year. Employed persons were counted by gender and economic branch twice a year for the national, the LAA and the AA-districts.

From a statistical point of view, the practices concerning the actual administration of the files were unsatisfactory, since potential sources of faults in producing the single files were manifold. First, the production of official figures adhered to the ideal of disciplinary objectivity (see Chapter 2.5). Figures were made credible with reference to formal numerical methods promising a detachment from human subjectivity, or, vice versa, adherence to impersonality or to the view from 'the' BAVAV statistical division. Administrative action was also marked by the ideal of objectivity. By and large, however, administrative activities were concerned more with the procedural sense of the word. As outlined in Chapter 2.5 and 3.5, administrators preferred precise and standardisable measures to highly accurate ones. Standardised measures (numerical information), forms (file) and means of communication (formulas) could if standardised be more easily be replicated across a wider space. Obviously, both senses of objectivity overlapped, especially with regard to official statistics as a boundary object between science and the state. From a statistical point of view, however, any attempt to expel human subjectivity from its realm was counteracted by the actual administrative practices necessary for the production of the administrative paperwork underlying the statistics. Filling in or tallying the files as an administrative practice was crucially subject to the volatility of human attention, to different paces of work or trembling hands. The multiplicity and heterogeneity of human capacities thus potentially counteracted the ideal of objectivity enshrined in statistics both as a scientific discipline and administrative practice. In the absence of machines within the contemporary labour administration – a circumstance we will turn to in section 4.6 below – human subjectivity conflicted with the major objective of the file: the reduction of multiple human economic activities into standardised procedures.

Problems with labour statistics went even further than that. As noted, the groundwork for these local statistics depended on certain procedures to procure the data in the first place. With the 1951 Employment Protection Act only employers were legally obliged to notify to the local AA changes of their staff. Employees, by contrast, were not legally obliged to notify the AA about their current working situation. Labour statisticians, in particular, considered § 53 paragraph 1 AVAVG an unsuitable obligation to notify variations in data provision for statistical purposes. As I show in Chapters 6 and 8, these different issues only came to the surface during adjustment in the early 1960s: commuters might have been registered twice, through their employer (work place) or by themselves (legal place of residence). Further, in the course of transmitting the information across space (from either the AK to the list, or from the lists to the next labour office), information could get lost.

In a more general sense, the condition of the file varied from AA to AA. The more aware high-ranking officials became of the uncertainties inscribed in the actual registration process, the greater their appeal to the ‘spirit of rigor’ (Porter 1995) embodied in the ideal of objectivity: more emphasis was laid upon diligent work by well-trained file workers, before some officials, with the introduction of electronic data processing and machines believed that they had almost ‘tamed’ human subjectivity (I return to this issue in Chapters 8 and 9).¹⁴⁷ At the same time, however, the practices and languages foreign to the actual official statistician’s work were considered necessary as a pre-requisite for the BAVAV employment statistics to exist. However ‘incomplete’ and prone to individual faults the data construction was, without the legal and administrative coding of the individual data, their translation into a statistical generality would be neither possible nor intelligible for those who were asked to fill in questionnaires or employment files, or, eventually, read and interpret the statistical tables (see chapter 2.6 for the idea of a co-constitution of administrative practice and statistical intelligibility). During the early 1950s, the respective statisticians were satisfied with controlling the results either by probability checks, or by comparison with other regular statistics delivering data on employees (Galland 1956: 50f.). As the analysis of the G-file on behalf of the IAB in 1969

¹⁴⁷ These uncertainties, as discussed in Chapter 2.5, also arose as a consequence of heterogeneous administrative practice between distant yet connected AAs. File workers’ activities needed to be standardised according to directives centrally developed and issued at the BAVAV, while they themselves were located far away at single AAs.

concluded, these alternatives actually to control the statistics were interpreted very ‘optimistically’.¹⁴⁸ With regard to the former, the stock of persons employed was deemed plausible if changes to the economic world either by monetary, interest, fiscal or financial, or economic policy measures (such as changes in coal prices) ‘had merely an indirect and gradual impact on either the total number of employed persons or the relative number by economic branch’ (Galland 1956: 50). Changes to the economic world – causally effective on the employment situation – were plausibly reflected in the statistics only if they occurred gradually, ‘[continuing] positively or negatively, mostly across several enquiry periods until their repercussions would come to a halt’ (Galland 1956: 50). Abrupt change against the direction of the previous progression was considered to go against probability. With regard to the comparison with other regular statistics, the 1950 occupational census (its total numbers as further segmentations were not undertaken) served as a benchmark.

4.5. The Alphabet in the File

The question as to whether or not the files should be alphabetically ordered occupied the LAÄ labour statisticians during their first meeting in Frankfurt in May 1949. For reasons of simplification, as Wentzien of the LAA Hamburg reported, it was decided to order the employment file by alphabet, but leave the placement files (which included unemployed persons’ details) in an occupational order (by occupational groups) (Wentzien 1950). The alphabetical order of names, whether family names or proper names served as the primary sign system by which their bearers – represented via the file – could be ordered at a place distant from their actual context of everyday life. When letters and numbers – whose invention in itself led to a considerable reduction in the number of signs (Goody 1987: 53-56) – were the primary signifiers to organisationally and cognitively order knowledge about individual characteristics or about the plants and work spaces where economic activities were performed, alphabetical order served to systematise the knowledge classified *within* the realm of

¹⁴⁸ See Institut für Arbeitsmarkt und Berufsforschung, Bereich Statistik, Analyse der G-Kartei, August 1969, in: B149/22046.

the individual file system. The alphabet as a distinct set of its own, the rules inferred from it for the order of the files, and their ‘uniform application’ (*einheitliche Anwendung*), were (as Anna Volkert, placement officer in the LAA South Bavaria noted), conducive to the ‘smooth cooperation of these offices’ (*reibungslose Zusammenwirken dieser Dienststellen*) (Volkert 1951: 139). Thus the order set in the alphabet – if cast in an administrative mold and routinised in administrative practice – stood as the basis of a complex communicative nexus between different labour offices and the labour administration in general. The files, as discussed in Chapter 2.4.2 and the previous sections, were, of course, *the* central units by which information was assembled and produced. Alphabetical order served as a symbolic means by which information was ordered within the respective file section.

From a sociological perspective, it is interesting to note that issues around the alphabetical order of the files mostly occupied ‘street-level’ bureaucrats such as Volkert and Wentzien, who decided cases, certified eligibility for benefits and counted the files for statistical purposes (see Starr 1992: 269f. for distinctions between different sociological roles among institutional classifiers). The fact that these reports were written by Wentzien and Volkert suggests that the decision-making problems around the issue of the alphabet were sufficiently complex to require a great deal of inside knowledge for their role to be far more than just routine. File workers, placement officers and labour statisticians might not have had a great deal to say about the design of the classificatory system, but it was within their authority to decide how it was going to be put into practice.

From a practical point of view, ‘the alphabet in the file’ (Volkert 1951) was anything but self-evident. The ABC-order as such already involves a set of rules: the order of surnames beginning with the A, followed by B and so on. Looking at the task with the eyes of an administrator, the sheer quantity of names for people, places and objects, never mind the differences between the phonetic and the written alphabet, required still further and more uniform rules. The use of uniform ABC rules for registers, filing systems and the like thereby, was not an invention of the state administration. The first rulebook was published in 1925 under the auspices of the *Reichkuratorium für Wirtschaftlichkeit* (RKW), one of the leading organisations, (founded in 1921) that strove to implement measures of organisational efficiency

following the American models of Taylor and Ford.¹⁴⁹ Its author was Dr Fritz Prinzhorn (Prinzhorn 1925/1931), librarian and documentarist who would become an eminent representative of the Nazi book policy (Simon 2005 and Appendix I).¹⁵⁰ His leaflet contained twenty-nine rules for all those agencies, companies and private persons concerned with the ordering of registers, files, directories, address registers, telephone directories (*Fernsprechverzeichnisse*), or indices of places. Rules of a more general nature were followed by those for the ordering of individuals, companies, agencies, associations, and of place names. First, the German spelling was set as standard: accents on letters of whatever kind should be treated as if they were non-existent during ordering practices (Prinzhorn 1925/1931: 7). Titles, compound or place names with the same name made things more complicated. For all these cases the problem was not that ordering was impossible. Rather, the myriad options at hand for ordering the files needed to be disciplined both by setting uniform standard rules (the alphabet) and conventions about how to deploy it.

The correct spelling as well as the placement officer's or file worker's handwriting skills constituted two further prerequisite for the ordering system to work. Once a file card was misplaced due to misspelling or illegibility, the 'case' was lost, at least until the next adjustment measure or a clerk was ordered to go through the respective file section. Further, as Wentzien's (1950) elaborations reveal, the manner in which the files were ordered – by alphabet, profession or date – engendered the further organisational make up of local labour offices. Once the employment files (as in the Hamburg case) were centrally stored and organised by alphabet, the unemployed person, upon first registration, was required to register with a central registration office first before being transferred to the placement officer. There, a clerk was supposed to ask for and register personal data and transfer the documents to a 'secretary' (*Schreibkraft*) who was then to issue an employment file, which was subsequently transferred to the next placement officer available.

¹⁴⁹ The RKW emerged out of corporatist, self-regulating German capitalism, but, as Shearer has shown, enjoyed cooperation with state agencies (Shearer 1997).

¹⁵⁰ The first five editions of this very successful volume were co-authored by Prinzhorn and Dr. Fritz Wlach. The sixth edition from 1931 (51 000-55 000 copies) was considerably re-edited (see Prinzhorn 1925/1931). By 1934 the high circulation prompted an eighth edition (Volkert 1951).

4.6. The Absence of Statistical Machines in the Labour Administration

As noted in Chapter 3.6, the German official statistical infrastructure relied on punch card and tabulating machines from about 1910. The Nazi period was characterised by multiple and overlapping statistical systems based both on machine readable punch cards and non-punched cards typical of register-type information, of which the work book and the labour card file system were important examples. The labour administration, perhaps surprisingly, was characterised by an absence of punch card equipment as well as an absence of machine technology more broadly, apart from contemporary office technology such as typewriters, addressing, calculating and accounting machines. Galland's (1956) book on German labour statistics mentions punch cards only once; unsurprisingly so, in the context of the StBA *Mikrozensus*, then in the preparatory stage.

This section sees the absence of statistical machine equipment in labour offices as noteworthy and provides explanation for it. I first take up the issue noted in Chapter 3.6 where the history of punch card machines and their rather ambivalent usage was highlighted. I explore some information on the use and nature of machines within the StBA (and the StLÄ). The transition from punch card machines to electronic data processing was also a major issue within official statistical offices during the 1950s and 1960s, where it was expected that, with the introduction of new machine technology, the statistical work process would speed up and the quality of data would improve. The fact that machine technology itself presupposed a new type of statistical expert, the programmer and machine engineer, can only be mentioned in passing. Against this backdrop, I also provide two main reasons for the absence of punch card machines within the labour administrative statistical system, one economical and one administrative-practical.

Following Szameitat (see Appendix I) and Zindler¹⁵¹ (1959; 1962), machine-based data processing tripled in the first ten years following the StBA's refoundation in 1948. Especially the masses of 'registration forms' (*Anmeldescheine*) for the 'foreign trade statistics' (*Außenhandelsstatistik*), and for other statistics drove the common punch card system to its limits. The number of punch cards used within the

¹⁵¹ Hans-Joachim Zindler was a StBA mathematician.

StBA doubled between 1951 and 1955 and reached forty-one million by 1961 (Szameitat and Zindler 1962: 380). In the light of this and given the general Zeitgeist of automation (see chapter 3.6.), the issue of electronic calculating machines was first debated within the StBA in late 1956. Automation and machine application in statistics were also discussed at the 1959 DStG annual meeting (DStG 1959). Between 1957 and 1962, further inspired by a mandate of the parliamentary budget committee to investigate the benefits of electronic data processing for work rationalisation within the StBA, a StBA task force investigated advantages and pitfalls. By that time, the intellectual climate had already changed in favour of the machines, not least because of the many advantages that were associated with them. Szameitat and Zindler (1962: 379) mention the acceleration of statistical work by electronic machines – an argument that had already committed earlier census statisticians to the Hollerith punched-card machinery. The StBA statisticians acknowledged, however, that the functional characteristics remained unchanged: questionnaires still needed to be drafted and cards to be punched and double-checked. ‘Only the final phase of machine-based sorting, calculating and tabulating work will be sped up and reduced to a fraction of the previous time exposure’ (Szameitat and Zindler 1962: 379). Further, the machine technology promised on improvements in the reliability of data itself: data gathered was supposed to be subjected to ‘comprehensive probability controls’ (*umfangreiche Wahrscheinlichkeitskontrollen*, Szameitat and Zindler 1962: 379) – even though the faults detected in turn required further manual work to remedy.

With regard to the StBA division of labour, a new type of programmer needed to be hired and trained to deal with the machine language which was considered to be ‘extremely difficult and abstract’ (Szameitat and Zindler 1962: 378). Mathematicians and engineers entered the scene of official statistics, in as much as the creation of a new type of civil servant was proclaimed in the course of office automation in general, as persons ‘capable of recognising and solving administrative problems, if need be, as a challenge in technical design’ (Schmidt-Schmiedebach 1955: 10). For Hüttner, electronic data processing within the StBA required ‘that employers in senior service and a large part of those in higher service get to know the basic principles and problems of machine processing’ (Hüttner 1972:

39). Long-term advanced training (*langfristige Fortbildungsarbeit*) in programming and system analysis became a crucial component for these ranks in the StBA and the LStÄ (Hüttner 1972: 40).

The first electronic data machine was purchased in July 1960, tested and installed in the following two years (Szameitat und Zindler 1962: 381f.): A large data processing computer IBM 7070, and two IBM 1401s, were launched by IBM only in 1959. The latter, according to Campbell-Kelly was ‘outstandingly the most successful early data processing computer’ (Campbell-Kelly 1990: 151). Its development took place, according to the author, at a time when the ratio between computers and punched-card machine installations within public and private offices, in the US at least, began to shift towards the former. By 1972, another IBM and a Siemens computer were added to the StBA equipment (Hüttner 1972: 37).

Nothaas (see Appendix I), administrative statistician at the Bavarian state ministry for social affairs, in 1948 gave two main reasons for the absence of statistical machines in the labour administration, one economical and one administrative-practical.¹⁵² For labour administrators, the manufacture of punched cards would have made sense only if cards, once punched, could be sorted repeatedly in different tabulations or combinations. This was possible in population or occupational censuses. Labour statistics, however, albeit based on a vast amount of information contained on the file cards, were made up of only a few combinations and hence presented little table space. As Nothaas asserted ‘if, however, a survey inquires about only relatively few characteristics and if these characteristics are only transferred to the table in one combination, the deployment of Hollerith or Powersmaschinen would be uneconomical’ (Nothaas 1948: 23). Secondly, even if file and punch cards were combined to a machine-readable version, the fact that file cards were used on the spot for placement purposes foreclosed any possibility of sending them to a central collection and data processing point. Given the decentralised organisation structure of the labour administration, the other option – a

¹⁵² Here, Nothaas essentially replicated earlier elaborations by Scharlau (see Appendix), who evaluated machine employment for the Nazi labour deployment (Scharlau 1943). For Scharlau, neither the quantity of the masses, nor the number of characteristics gathered justified the use of Hollerith machines for the labour administration – despite the fact that these machines increasingly supported statistical practices during Nazi times. Neither effort or speed, nor reliability justified replacing manual for machine-based statistics (Scharlau 1943: 82).

punch card machine in every local labour office – was hardly justifiable economically.

Archival evidence, however, suggests that several LAÄ considered the introduction of Hollerith machines following a model test within the district of the LAA Schleswig-Holstein in Lübeck. For the AA Lübeck, punched-card machines were introduced in January 1952 to process benefit payments to unemployed persons. Hollerith machines supported data processing for unemployed and labour statistics at the AA Kiel.¹⁵³ Drawing on the experiences in Lübeck, a further report to the BAVAV president by Gegler, Strenger and Knoop re-emphasised the importance of Hollerith machine-based data processing for labour administration. The authors praised the greater economy, ‘cleanliness, security, and time savings’ (*Sauberkeit, Sicherheit and Zeitersparnis*) of machine technology – the epitome of mechanisation conceived as an inexorable ‘process of radical revaluation’, (*Prozess tiefgreifender Umwertungen*).¹⁵⁴ As Schmidt-Schmiedebach reported, however, the model test in Lübeck was to remain a singular instance. By mid-1954, BAVAV officials voted against a further implementation of Hollerith machines with reference to ‘the drop in unemployment’ and the concomitant decrease in the payment of unemployment benefits, for which the Hollerith machines in Lübeck were primarily used (Schmidt-Schmiedebach 1957: 16).¹⁵⁵

¹⁵³ Heinz Kretschmann, Vorschlag fuer die Einführung des Hollerith-Verfahrens bei der Arbeitsverwaltung, Vorschlag an BAVAV Präsident Scheuble, 18 September 1952, in: SEAD-BA 8.6/14. Heinz Kretschmann then was Vice-president of the LAA Lübeck. He gained his knowledge of Hollerith-machines as employee of the wage and salary administration in the German Navy shipyard in Wilhelmshaven during the Second World War.

¹⁵⁴ Gutachten über die Anwendbarkeit des Lochkartenverfahrens in der Arbeitsverwaltung auf Grund der Versuche im Bezirk des Landesarbeitsamts Schleswig-Holstein. Vorgelegt von Gegler, Strenger und Knoop, Oktober 1952, p. 25, in: SEAD-BA 8.6/14.

¹⁵⁵ No other archival traces were found as to why these tests on behalf of the LAA Schleswig-Holstein were not followed up by the BAVAV. Schaper and Schulz (1971: 168) mention that within the district of the LAA North Bavaria punch-card equipment was introduced from 1959 onwards. By 1961, all AA in the North Bavarian district processed unemployment benefit forms through punch cards. Later on, statistics of job vacancies and vocational training were punch-card processed. The North Bavarian example would constitute an interesting case to examine further the dissemination of punch-card equipment within the labour administration.

4.7. How to Arrive at Uniform Concepts and Standard Classifications for Labour Market Statistics? The Example of Occupational Classifications

We have already observed that the West German system of labour administration in its first decade after the Second World War was marked by restructuring processes concerned with overcoming Nazi economic planning and labour deployment, redressing the complexity of regionally specific arrangements, and with attaining uniform norms, standard terminology, and classificatory systems for the entire national territory.

This section illustrates these issues with reference to the example of one of the fundamental pillars of the BAVAV employment statistics: occupational classifications. As discussions among StBA and StLA statistical experts reveal, the classificatory infrastructure was supposed to be overhauled from the 1920s due to manifold changes in the division of labour in a ‘modern’ economy, and shifting perspectives of both state and economic thought and action towards the working population. Zopfy’s¹⁵⁶ contributions, in particular to the 1955 DStG annual meeting, show particularly well that the German occupational classification not only maintained an unusually close relationship to socio-administrative legal categories dating back to the Bismarck era. Zopfy’s texts also point to the difficulties of statistical measurement (counting) of economic activities by a classificatory system (coding) which departed from the one in place. Whereas the *Stellung im Beruf* was neatly inscribed in bureaucratic nomenclature (but insufficiently so from an economic statistical point of view) and so exploited their mundane intelligibility for statistical purposes, any socio-economic representation of the German’s economic activities, coded by professions *and* by income, reputation, education or the like, had to grapple with measurement problems of all kinds, both due to the ‘subjectivity’ of the information given, and to the German people’s ‘suspicion’ (Zopfy 1955: 309) of questionnaires, and statistics more generally. These questions were simultaneously discussed within the StBA ‘working group on preparation of the population and occupational census 1960’. Here we may see the international dimension of the entire endeavour: the ICLS in its 1954 and 1957 meetings crucially propelled the

¹⁵⁶ Franz Zopfy was a trained economist (*Diplomvolkswirt*) and *Oberregierungsrat* at the Bavarian StLA.

German discussions based on the insight that the kind of employment of a person could not be characterised any longer with one attribute alone. Indeed, the statistical activity within the BAVAV depended on other classificatory activities, mostly discussed by labour statisticians, but legally codified and put into administrative practice by occupational researchers and labour administrators. This is to observe that with the re-introduction of the BAVAV employment files, their extra-statistical foundations (occupational classification) were discussed and re-defined. All these examples point to wider attempts to restructure German labour administration during the 1950s.

In his speech to the 1955 DStG annual meeting in Augsburg, Franz Zopfy deplored the state of the official statistical depiction of employment as characterised by individual profession, economic branch and occupational position (*Stellung im Beruf*) (Zopfy 1955). Zopfy earned his credentials in the field in previous years. He presented the system of economic branches and professions re-introduced in 1949 and 1950 respectively to the *Allgemeine Statistische Archiv* (Zopfy 1951b). He also endeavoured to elaborate on the notion of ‘a job outside one’s profession’ (*berufsfremde Tätigkeit*) understood as a necessary definitory work for subsequent statistical surveys (Zopfy 1951a). In this text, Zopfy pointed to the underlying problem, namely how to measure economic activities that evade the occupational classification in place. The challenging problem of refugees and displaced persons, as well as the denazification measures installed by the occupying countries prohibiting entire industries and economic branches, might have prompted statisticians to direct their attention to new ways to depict profession and economic activities outside the occupational grid. As Zopfy himself mentioned, new survey methods employed for the 1950 Bavarian population census (representative sampling through interview; opinion polling) elicited the fact that interviewees often did not recognise their occupational positions in the question (Zopfy 1951a: 221). From a statistical point of view, remedies against these misrepresentations had to grapple with coding problems. Anything beyond a focus on profession and occupational position (e.g. social position, area of responsibility, societal recognition) was not ‘objectively registrable’ (*objektiv erfassbar*, Zopfy 1951a: 221).

Zopfy's 1955 contribution took up these considerations and considered the *Stellung im Beruf*, its common differentiation into self-employed, worker, civil servant, *Angestellte* and unpaid family workers particularly misleading if any of those was taken to indicate the individual social position. For Zopfy, in the absence of more concise categories, 'its [*Stellung im Beruf*, JM] usefulness for more subtle enquiries is very questionable due to its primitivism' (Zopfy 1955: 308). Zopfy suggested the replacement of the anachronistic and bureaucratic nomenclature *Stellung im Beruf* in place from the Bismarck era with a different statistical classification. The *Stellung im Beruf*, firmly rooted in German social and labour law and neatly compatible with the juridical-administrative categories of the German labour and social administration, should, according to Zopfy, give way to a socio-economic representation comprised of eight to ten socio-economic categories such as profession, position in the profession/company, reputation deriving from the profession, property, income, professional formation, life and consumption habits. Through the combination of these categories, the notion of 'social strata' was to be constructed, consisting essentially of two main dimensions, income and education. Zopfy's statement openly confronted the official statistical practice with regard to the economic and social capture of the German population with a perspective informed by sociological and economical questions.

In March 1955, during a meeting of the StBA working group on preparation of the population and occupational census 1960, the extension of the hitherto existing *Stellung im Beruf* to a socio-economic classification was already being discussed.¹⁵⁷ These attempts, propelled amongst others by the eighth ICLS meeting in December 1954, were initially to be combined with a renovated international standard occupational classification on the agenda of the following ICLS in April 1957. As Horstmann (see Appendix I), ICLS participant and head of StBA department 'population statistics' summarised, these attempts followed the insight that 'the kind of employment of a person cannot be characterised with *one* attribute alone' (Horstmann 1958: 21, emphasis in original). Eventually, however, international labour statisticians agreed to develop an occupational and socio-economic

¹⁵⁷ An die Mitglieder des Arbeitskreises für die Vorbereitung der Volks- und Berufszählung 1960, Tagung am 15. und 16. März 1955, 1. März 1955, in: BAK B128/3756.

classification distinct from each other.¹⁵⁸ Following the basic insight that occupational researchers and statisticians actually were unsure of how to proceed – previous attempts towards a socio-economic classification turned out to be anything but uniform – the StBA working group discussed the British classification by ‘socio-economic groups’ deployed for the 1951 population and occupational census, as well as the French version used for the 1946 occupational census. But uniformity on the international level was nowhere evident. There was only agreement on the fact that any expansion of the classification towards the depiction of the ‘social position’ required a ‘registration of the workers by qualification status’.¹⁵⁹ Such information was only to be obtained through additional inquiries on behalf of the StBA. As Zopfy was aware, however, the ‘limits of statistical captureability’ (*Grenzen der statistischen Erfäßbarkeit*, Zopfy 1955: 306), foreclosed this suggestion: questionnaire and interview were, for Zopfy, considered with ‘suspicion’ (*Argwohn*) by the German public. ‘As the statistical practice shows, [...] every income survey is considered an infringement of a highly private sphere’ (Zopfy 1955: 309). And ‘the opportunity was missed in the past to supply the entire population with labour books and to enter a statistical code number [...] in these books’ (Zopfy 1955: 308).

The ongoing discussions which followed are not studied here (see Schultheis 1992; Pfeuffer and Schultheis 2002 for remarks on the German case; Desrosières and Thévenot 1988/2002 discuss French socio-professional categories; Szreter 1993 compares the British, French and US case). In Chapter 8, however, I address the argument that with the rise of occupational research as a new field of state government, attempts to re-structure the classificatory system were propelled forward. In addition, section 8.5 addresses briefly the institutionalisation of the occupational and labour market research discourse. By the early 1960s, the absence of statistical data broken down by occupational position and skills was increasingly recognised as a problem for governmental and labour administrative purposes, leading to, among others, the foundation of a BMA sub-department ‘Occupational Classifications’ in April 1964, and to the IAB in 1967. Issues relevant to the labour administration’s statistical infrastructure proper are again taken up in Chapter 6,

¹⁵⁸ An die Mitglieder des Arbeitskreises für die Vorbereitung der Volks- und Berufszählung 1960, Tagung am 15. und 16. März 1955, 1. März 1955, p.5, in: BAK B128/3756.

¹⁵⁹ An die Mitglieder des Arbeitskreises für die Vorbereitung der Volks- und Berufszählung 1960, Tagung am 15. und 16. März 1955, 1. März 1955, p.7 in: BAK B128/3756.

where I discuss the future of the employment files as a matter of ‘scalar debate’. Chapter 5 following is concerned with three elements that describe the contemporary statistical discourse more broadly: the dissemination of labour force sample surveys under the OEEC umbrella; the mathematisation of statistics in post-war Germany; and the different rationalities towards the publication of erroneous or partial information put forward by mathematical and official statisticians.

4.8. Conclusion

This chapter has shown how the employment files as a central element of German labour statistics were re-established, produced, ordered, and debated in the post-war context. It was argued that the filing system – despite war destruction and the post-war scrapping of most of the files – constituted the basis for post-war labour statistical activities. The (new) labour statistics were essentially a continuation of the previous system, with regard to its administrative basis (the file card), its expertise (labour administrators and statisticians), its techniques (e.g. the count sheet method introduced in 1944), the information sought (the ‘occupational personality’), and some of its classificatory infrastructure. Although there was some difference from one LAA district to the other, it was clear that an occupational index for the labour statistics was the only classificatory invention that departed from war economic efforts in this direction, although the underlying insight echoed older attempts. The 1939 population and occupational census already adhered to the principle that capture of individual skills and actual professional activities delivered a more accurate picture of a person’s profession than the indication of the economic branch (Galland 1956: 150). With regard to statistical design, a statistics of incoming unemployed was the only additional information sought in the wake of pressing unemployment from 1948.

It was also shown how the future of the files was debated within the BAVAV and between state and labour administration. This chapter has argued that the filing system, a Nazi heritage, crucially challenged how serious post-war state institutions were with respect to their democratic management of individual information. As was

shown with respect to BAVAV, BMA and BMPF initiatives, the issue of the extent to which the filing system and the individual information contained was to be inscribed in other state purposes (such as the detection of defaulters concerning radio and television licence fees) was particularly pertinent. As this chapter has shown, other than during the Nazi era, BMA ministerial administrators drew a boundary around the files as an ‘internal technical instrument of labour offices’ thus deferring the broader norm of ‘administrative assistance’ invoked by BMPF officials.

Using archival evidence from the Federal Archive Koblenz and the SEAD-BA in Mannheim, a peculiar simultaneity of events was noted. As to debates within the BAVAV, the future of the files was – due to their entanglement with administrative practice and legal requirements – dependent on the issue of whether or not a new legal foundation could be established and a sponsor found. Especially from within the BAVAV self-governing bodies, there were clear indications pointing toward the abolition of the files, and, as shown, LAA were already ordered to disrupt data exchange necessary for the maintenance of the files, and to sort out the file cards. At the same time, the BAVAV issued samples of new file cards in order to put the statistical work on sound administrative bases, and to guarantee a standard utilisation of files across LAA districts in the newly unified West German territory. On the LAA and AA level, with the future of the files pending, statistics and files continued to be produced and were kept up to date by roughly 3500 ‘file workers’ and clerks.

The statistics were produced in numerous ways: (i) based on territorialized administrative files; (ii) dependent on other conventional textual forms (questionnaire, notification form, occupational classifications and legal notions); (iii) as counted within local labour offices and hence aggregated; and (iv) were made credible through comparison with other statistics. The story of the German employment situation thus presented – an exhaustive, bottom-up description favouring detailed, local knowledge – exclusively relied on paper and pen, telephone and post, and human (manual) labour (handwriting, piling, sorting, and tallying), as well as the spatial organisation on two different scales: the office (AA placement section or statistical service), and the filing cabinet. In this regard, I have shown here how the alphabetical order served as a symbolic means by which information was ordered within the respective file section. Standardised by reference to Prinzhorn’s

rule book, and routinized through administrative practice, the alphabetical order formed the basis for a communicative net between different local labour offices. The order in the respective file cabinets further simulated the labour market as conceptualised in neoclassical economics: as a neutral place of supply of and demand for labour. As for the architecture of early twentieth-century labour office (Mattieson 2007), so the file cabinets were inherently gendered in that files of men and women were stored separately. This helped to reproduce dominant gender norms within labour offices, and stabilised the distinction between a ‘male’ and ‘female’ labour market. The files generally focused on the core labour force (workers and *Angestellte*) which were under compulsory insurance legislation, but left out large parts of the civil servants, part-time employees and marginally employed. In the following chapter, I turn to address parallel transitions in the statistical discourse more broadly.

**5. Parallel Transitions: The Dissemination of Labour
Force Sample Surveys, Mathematisation, and
Contestation Over Public Figures in West Germany
1949-1961**

5.1 Introduction

Parallel to the re-introduction of labour statistical infrastructure and the discussions on the classificatory systems, a new international statistical discourse began to emerge in co-constitution with its object: labour force sample surveys. This discourse was essentially embedded in the OEEC and the ILO. Labour statisticians within both the OEEC Manpower Committee and the ILO ICLS became increasingly interested in the quantitative make-up of the active population, the comparability of figures – if available – and prospective estimates in member countries, especially for European countries dealing with the aftermath of the Second World War. This chapter turns to the proceedings of the OEEC Manpower Committee between 1948 and 1952 in order to account for a possible route through which labour force sample surveys, the technical knowledge and the skills disseminated in West German official statistics.

As noted, German statistical discourse was dominated by a factual logic and was firmly embedded in other scientific disciplines. These characteristics are further investigated in this chapter with a particular perspective on ‘mathematisation’ as a discourse. As I further outline, mathematisation as a discourse in the language of statisticians served as a semantic tool for contemporary statisticians to order knowledge within their discipline in times of rapid change. In this regard, representativeness, as the statistical (and political) concept that underlay sampling was unthinkable without probability theory and mathematical calculation (Chapter 3.4.2). As I show, representativeness was only one of the crucial elements of a statistical discourse in a state of transformation. Mathematisation as discourse reveals that other issues were at stake, too, such as the typical characteristics of statisticians (their education, skills and knowledge) and questions of training and institutional make-up.

The chapter then moves on to explore statisticians’ various stances towards the publication of information on the limitations of their results (measurement errors). As evidenced from analysis of the material, mathematical statisticians generally considered it a primary duty for official statistics to publish such information. The case of the US, where such information was published since the late 1940s on behalf of the US Census Bureau, provided them with a powerful

example to show that their reasoning was amenable to official statistics. Contemporary German official statisticians, by contrast, preferred to suppress the publication of errors. The reasons this may be found in the immediate Nazi past when statistical activity and spying on behalf of the totalitarian government were omnipresent and created general distrust towards state statistical activities. The sections draw on archival material from the OECD Archive in Paris, a selection of specialist literature (statistical textbooks and DStG publications), published proceedings of the 1961 DStG annual meeting (DStG 1961), a small selection of newspaper articles, and a philosophical essay (Horkheimer and Adorno 1944/2002).

In the final section of this chapter, I relate the official statisticians' publishing policies to the (rather sceptical) perception of the German public towards statistics. This scepticism towards statistics and statistical investigation has a longer history, but, in the present context, can reasonably be explained with the Nazi and Allied policies which widely relied on statistical practice. The Allied questionnaire (*Fragebogen*) as one of the main technical instruments for denazification policies will be shown to have developed soon after 1945 into a 'symbol of political purge' (Borgstedt 2006) representing both Allied foreign rule as well as the moral, personal, and professional difficulties of coming to terms with the dictatorial past. The wide public reception of von Salomons 'The Answers' (*Der Fragebogen*), an autobiographical work written in the form of a 600+ pages response to the Allied questionnaire (von Salomon 1951/1955), will be taken as a particularly remarkable illustration of post-war statistical scepticism. These sceptical attitudes, well understood, have to be interpreted in the context of a wider rejection of the Allied attempt to scrutinise personal involvement with the Nazi regime, which gained momentum with the 'politics of amnesty' after 1949 (Frei 2002). The chapter further illustrates this background with two philosophical voices that seem to underscore the official statisticians' perception of the public as particularly sceptical about official statistics. Whilst I do not suggest that texts by W. E. Süskind (1901-1970), writer and editorial journalist on politics with *Süddeutsche Zeitung* during the 1950s, and Max Horkheimer (1895-1973) and Theodor Adorno's (1903-1969) 'Dialectic of Enlightenment' (1944/2002), can be fully aligned with contemporary 'public

opinion', I do argue that their respective perspective was an influential part of what some (West) German citizens thought about official statistics.

Theoretically, both – the official statistician's evidence-based rationality and the philosopher's experience-based poesy – deploy conflicting discursive modes of how to represent social reality. The former rests on the measurement of frequencies on the basis of standardised categories, whereas the latter intends to intertwine private human experience with the events of history. In Boltanski and Thévenot's terms, the informational form of personal experience can be related to the political order of 'domestic authority', whereas the informational form of official statistics relates to the 'industrial order' (see Chapter 2.2). In this sense, the section not only offers a snapshot of public discussions on 'statistics' in post-war West Germany, but also puts in relation the different patterns with which these were led. The section documents both the often implicate political questions about the forms of discourse that should prevail in a post-war society on the road to democracy, and the moral justifications for what kinds of intellectual attitudes a good citizen should maintain: personal experience articulated in a literary writing style and based on individual authority: the 'richness of fiction' vs. impartiality and self-sacrifice expressed in aggregate patterns: the 'discipline of facts' (Peters 2001: 440).

5.2. On the Dissemination of Labour Force Sample Surveys 1948-1952

Surveys, other than data gathering procedures inscribed in administrative action, were usually undertaken by state offices designated for statistical observation proper. Accordingly, surveys aimed at designing the questionnaire according to demands that arose more imminently from these statistical offices – an essential difference to administrative statistics rendering surveys more suitable for international comparison. Such surveys, as outlined above, were first developed in the US in the context of soaring unemployment during the early 1930s, and became routinised during the war economy of the early 1940s. Chapter 3.4.2 then concluded that on the basis of scarce scholarly literature mere assumptions could be made as to the dissemination of the labour force sample surveys into West-German post-war official

statistics. The pre-dominant role of the US experience, its experts and statistical institutions is beyond doubt as far as the German *Mikrozensus* (to be introduced under the auspices of the StBA in 1957) is concerned.¹⁶⁰

Against this background, this chapter outlines the steps taken towards a reconstruction of the organisational and personnel networks that, between 1948 and 1952, enabled the dissemination of labour force sample surveys, and the statistical knowledge and technical skills involved. In this respect, I hope to demonstrate that the demand for comparable data on labour force and ‘manpower utilisation’ in order to overcome the consequences of war and to normalise economic development was met through the workings of so-called Technical Assistant Missions on behalf of the OEEC from the late 1940s. A trip involving seventeen European statisticians, among them Dr Kurt Horstmann, head of StBA department ‘Population Statistics’ to the US Bureau of the Census and the UN Statistical Office in New York in early 1952 is noteworthy in the present context. Apart from Horstmann, StBA president Gerhard Fürst, as well as BMA labour administrators Martin Scharlau and Richard Luyken represented German official statistics at various OEEC statistical meetings.

The first section points to the transition from the ‘gainful worker’ to the labour force concept as mainly disseminated within the ICLS since 1947. It will be shown how the labour force concept was crucially advanced between October 1948 and 1952 within ILO/OEEC joint working groups on statistical questions under the auspices of the OEEC Manpower Committee. Studies and ‘fact-finding tours’ on the state of the various labour statistical systems to European countries undertaken by a handful of predominantly French statisticians provided the preparatory stages for OEEC Council recommendations on the development and improvement of labour force statistics in 1951 and 1952. As will be shown, it was mainly through these study reports, at times amended with data from replies to OEEC questionnaires, that knowledge was gained on the comparability of different national labour statistical systems, their concepts and data gathering procedures.

¹⁶⁰ The role of Anderson’s and Kellerer’s teaching at the University of Munich as well as the latter’s involvement with sampling at the StLA Bavaria and the DStG have been mentioned. These activities were instrumental in implementing the methods and in disseminating the skills within non-official and official statistics (Chapter 3.5.5). Further work needs to be done to establish how these activities were linked to international initiatives under the umbrella of the OEEC and ILO.

Based on this descriptive evidence, the second section looks at the OEEC initiatives from 1951 to implement labour force sample surveys in member countries. The mission to the Bureau of the Census in Washington and the UN Statistical Office in New York in early 1952 points to the importance of the US statistical experience in this respect. Expertise within the French INSEE – gained also through earlier links with the US – crucially helped to get ILO and OEEC initiatives off the ground in Europe. As will be shown, in the course of these transnational statistical activities, the first three chiefs of the statistical division at the French Ministry of Labour and Social Security were appointed to leading positions within both the OEEC Manpower Committee and the ILO statistical service.

Henri Phillippe Lacroix (see Appendix I) was the first Chief of the post-war Central Statistical Service within the Ministry. He continued his career at the ILO statistical service from 1950 onwards, in which capacity he joined the OEEC Mixed Working Groups on Statistical Questions. His replacement, André Aboughanem, was a co-member of the OEEC Mixed Working Group on Statistical Questions 1948-1951. Raymond Lévy-Bruhl (1922-2008), probably the most important figure in the present context, replaced Aboughanem as chief of the Ministry's statistical service in September 1951. Lévy-Bruhl chaired meetings of statisticians under the auspices of the OEEC Manpower Committee. Pierre Thionet (1916-2002) should also be mentioned. He and Lévy-Bruhl, both INSEE statisticians at the time, played a vital role in the introduction of random sampling into French official statistics from 1948 (Armatte 2003).

We may propose several reasons for the links between the French labour administration and the OEEC/ILO in the persons of the administrators mentioned. The linguistic affinity and spatial proximity between these statisticians, their work places, the OEEC (official language English and French, located in Paris) and the ILO (official languages English, Spanish, and French, located in Geneva) certainly facilitated their appointments. A more pertinent reason, however, was the statistical and technical proficiency in sampling methods which they embodied, gained partly within US statistical and educational institutions. As scholarly literature on French statistics testifies, knowledge in mathematical statistics and the sample survey expertise was acquired mainly through a journey of the young Lévy-Bruhl, funded

by the Rockefeller foundation, to the US between 1946-47 where he would spend six months at Columbia University/New York in order to study mathematical statistics, one month at the BLS and two months at the Census Bureau, the statistical service responsible for the development of sample surveys in the 1930s (Touchelay 2006; Desrosières and Touchelay 2008). On his return, Lévy-Bruhl linked up with Pierre Thionet, who was responsible for surveys at the INSEE, and, as described by Armatte (2003), the two played a part not only in knowledge transfer, but also in programme development with regard to sample surveys in France. The first labour force sample survey according to the methods Lévy-Bruhl studied at the US Census Bureau followed in April and October 1950 (Touchelay 2000: 177f.). Lévy-Bruhl would replace Aboughanem as the Ministry of Labour's chief of statistics division in 1951, when the latter was sent to the ILO. Lévy-Bruhl would return to the INSEE in 1961 (Desrosières and Touchelay 2008).

German delegates were not present at the sixth ICLS in Montreal in 1947, when, under the chairmanship of Ewan Clague¹⁶¹ (H.P. Lacroix acted as reporter), questions of labour force, employment and unemployment statistics were taken up on the basis of a study relating to methods that had been prepared by the ILO (ILO 1948a). In 1938 already, the Committee of Statistical Experts of the League of Nations drew up proposals for improving international comparability of census data on the economically active population (LoN 1938). Whilst experts suggested a definition of the economically active population, the 'gainful worker' concept would still underlay their practice. This, used in population and occupation censuses, classified the population according to the main or gainful occupation. One wanted to know what the population lives on, from which sources such living was gained, the access to which was believed to be most evident in the person's main occupation. The 1947 ICLS took up anew the question of how to classify the population into employed and unemployed in which context the labour force concept developed in the US was discussed for the first time at an international level. In the resolution adopted on that question, the ICLS defined employment, unemployment and labour

¹⁶¹ Ewan Clague (1897-1987), Commissioner of Labor Statistics for the US Department of Labour from 1946 to 1965, and Director of Bureau of Employment Security, Social Security Board 1940-1946, see Ewan Clague Oral History Interview under www.trumanlibrary.org.

force mainly on the basis of the activity of each individual during a specified period (ILO 1948b: 9-25; 52-60). This was a significant departure from the gainful worker concept, according to which the classification of a person as employed or unemployed was not related as strictly to activity during any specified time period.

The OEEC Manpower Committee, more specifically concerned with European reconstruction in the aftermath of the war, shared the ICLS's concern for figures on the active population and their comparability. For that purpose, the Committee, at its second session in October 1948 established 'a small working group' which was given two months only to study the 'figures for the active population of participating countries in 1952/53 and suggesting methods by which they could be made comparable'.¹⁶² The working group, an ILO and OEEC joint foundation, was rather small: André Aboughanem, Chief of Statistics Division within the French Ministry of Labour, and J. W. Nixon, chief of the ILO Statistical Section were its only members. Both met in Geneva in early November 1948 to draw up a first report which would pave the way in the course of the subsequent two years, together with previous efforts by both the League of Nations and the ILO International Conference of Labour Statisticians for an intensified preoccupation with and development of representative sampling among labour and official statisticians beyond the statistical offices in the US and Canada, where these methods first became routinised in the early 1940s.

The League of Nations published the first and only comprehensive estimate in this field (LoN 1944), data for which was compiled by the Office of Population Research at Princeton University under the director Professor Frank Notestein.¹⁶³ The OEEC working group's first report, based on figures published in the ILO Year Book of Labour Statistics 1945/1946 and replies to an informal questionnaire to OEEC member countries, only managed to gather a patchy summary of figures and

¹⁶² Manpower Committee, First Report of Mixed Working Group on Statistical Questions, 17 January 1949 in: OECD Archive MO (49)1.

¹⁶³ The report was already planned for in 1939 but postponed with the outbreak of the Second World War. Accordingly, two simultaneous problems inspired this study. For one, 'the decline of mortality and fertility' as the time-honoured problematic in demographic research. For another, the effects of the war, as testified by the following statement: 'The distribution of the population of Europe and the U.S.S.R. has been greatly altered by the economic necessities of the war, the flights from invading armies, the forced transfers of whole peoples, and the conscription of foreign labor' (LoN 1944: 16).

Notestein (1902-1983) was an American demographer who, as a biographical note puts it 'contributed significantly to the science of demography [...] mainly through his work on family planning and population control', see Biography of Notestein, Frank W. Notestein Papers 1930-1977 at the Seeley G. Mudd Manuscript Library, Princeton University, under <http://arks.princeton.edu/ark:/88435/m326m1736> (permanent URL).

estimates about the active population divided by age and gender, or, as in the case of the occupation zones in the defeated Germany, a collection of blank spaces or ‘very approximate’¹⁶⁴ estimates. The figures extracted from different national settings – even where not affected by the course of war – were hardly comparable. The issue of comparability, as well as the question of different methods of compiling manpower statistics in the participating countries, was tackled in their second report.¹⁶⁵ This led Aboughanem and Lacroix, who joined the ILO in 1950 from the French Ministry of Labour and Social Security, to a more in-depth examination of the US and the British case, each a paradigmatic example for labour statistics based on sample survey (US) and on the national security system (UK).

Aboughanem and Nixon’s second report sought to understand the term active population as defined by the 6th ICLS held in Montreal in August 1947. Here, the ‘labour force’, by eliminating the armed forces and the unemployed, defined all those who contributed to the production of national wealth differentiated by age and ‘industrial status’, that is the status of the individual in respect of his employment. They also set out to determine the extent to which existing manpower statistics actually fulfilled the definition adopted by the ICLS and recommended by the OEEC working group. For this purpose, in February 1949, Aboughanem and Nixon compiled synoptic tables showing the principal characteristics of the statistics available in each country. The compulsory registrations enforced in January 1946 by the occupying authorities in Germany were briefly mentioned (see discussion in Chapter 4.4).¹⁶⁶ Dr Maaßen –introduced in Chapter 4.2 as central to the re-introduction of labour statistics in the immediate post-war context – referred to both OEEC reports, in addition to unspecified ILO publications in a partial attempt to seek international recognition for post-war German labour statistics tainted with Nazi totalitarianism:

‘The tried and trusted international reputation of German labour statistics persists until the present day’ [he proclaimed]: ‘The OEEC Manpower Committee, namely the Mixed Working Group for Statistical Questions was recently concerned more closely with questions of the statistical service of the German labour administration. The

¹⁶⁴ Manpower Committee, First Report of Mixed Working Group on Statistical Questions, 17 January 1949, p. 21, in: OECD Archive MO (49)1.

¹⁶⁵ See Manpower Committee, Second Report of the Mixed Working Group on Statistical Questions, 25 March 1949, in: OECD Archive MO(49)24.

¹⁶⁶ See Manpower Committee, Second Report of the Mixed Working Group on Statistical Questions, 25 March 1949, p. 6, in: OECD Archive MO(49)24.

Committee, in two special reports appreciated the exemplary German organisation' (Maaßen 1950b: 403).

These statements give the impression that both reports were particularly concerned with the German labour statistical organisation. His remarks also suggest an assumption that the OEEC Working group thought the organisation to be a role model. In the light of the records retrieved from the OECD archive,¹⁶⁷ it can be said that neither of these reports was motivated by the German situation, nor were they particularly positive about German labour statistics. Apart from brief mention of the 1946 forced registration for all persons fit for employment, Germany's post-war situation is not more note-worthy to Aboughanem and Nixon than that of other OEEC member countries. Most likely, Maaßen, speaking on behalf of the BMA as the temporary institution to gather and publish labour statistical material on the federal level, interpreted the two reports with the German situation in mind. Amidst public controversy over the official labour statistics – due both to their recency and high unemployment – he resorted to the alleged legitimacy of an international organisation, such as the OEEC, in order to re-affirm the official standing of, and create trust in, the new labour statistical system and the figures it produced.

For Aboughanem and Nixon, the state of manpower statistics was rather unsatisfactory not only in Germany, but in all member countries. Where employment information was based on censuses, the intervals between data gathering and publication were considered too long. Where data was furnished by social insurance schemes, the problem was how to keep such records up to date. Further, 'a fraction of the population, sometimes an important one, often remains outside the social insurance scheme and estimates more or less reliable have to be made by using the data of the population census as basic, or 'bench mark' data'.¹⁶⁸ Against the backdrop of these shortfalls in terms of time and coverage, Aboughanem and Nixon aligned their report to the ICLS 1947 recommendation, especially with regard to the idea of using sampling methods to procure necessary data. After explaining its basic ideas – random selection, representativity, household visits by 'agents', 'application

¹⁶⁷ Manpower Committee, First Report of Mixed Working Group on Statistical Questions, 17 January 1949, in: OECD Archive MO (49)1; and Manpower Committee, Second Report of the Mixed Working Group on Statistical Questions, 25 March 1949, in: OECD Archive MO(49)24.

¹⁶⁸ Manpower Committee, Second Report of the Mixed Working Group on Statistical Questions, 25 March 1949, p. 9, in: OECD Archive MO(49)24.

of technical statistical methods' for interpretation of the data – the authors assured their readers that this 'method has been found to be an effective and reliable technique in the United States, in Canada and by the American Administration in Japan'. On the European continent, this method was rather new and the two suggested that 'a study should be made within the framework of the tasks of the Manpower Committee of the OEEC to determine the conditions under which means might be put at the disposal of participating countries in order to help them to develop their manpower statistics in this direction'.¹⁶⁹ The Manpower Committee approved this conclusion at its fourth session under the condition that both their proposals – labour force sample surveys for all participating countries, and maintenance of administrative records as a basis of labour statistics – were further examined.

The Manpower Committee requested that the Secretariat prepare a note on the technical aspects of sampling methods, and this was prepared by the latter's Statistical Service by April 1949.¹⁷⁰ Again, comparability issues were demanded in the context of reconstruction, especially among US and European manpower statistics. 'It should be pointed out that the adoption of sampling methods by participating countries will be of use in a European Recovery Programme only if the same methods are used in each country'.¹⁷¹ A Memorandum in the annex explained the general techniques of statistical sampling using US population and unemployment statistics, for which the methods had been in place since the early 1940s, as case in point. During a 'meeting of experts' in Geneva in August 1949, a future programme for the joint working group was drawn up, implying work of several months to completion – a crucial step towards a transnational network of experts concerned with the implementation of sample survey methods in labour statistics.¹⁷²

The demand for comparable data on labour force and manpower utilisation in order to overcome the consequences of war and to normalise economic

¹⁶⁹ Ibid.: 10

¹⁷⁰ Manpower Committee, *Sampling Methods in Statistics* (Cover Note by the Secretary of Manpower Committee), 29 April 1949, in: OECD Archive MO(49)32.

¹⁷¹ Ibid.: 2

¹⁷² Working Programme Proposed by the Mixed Group for the Study of Methods for Obtaining More Representative and Comparable Employment Statistics, annex to: Manpower Committee, Note Prepared by Mixed Working Group on Statistics Regarding Employment Statistics Based on Social Security Schemes or Obtained from Sampling Methods, 1 October 1949, in: OECD Archive MO(49)51.

development¹⁷³ arguably helped disseminate this concept within so-called Technical Assistant Missions on behalf of the OEEC since 1948, of which the one between 26 February and the end of March 1952 to the Bureau of Census in Washington was the most important in the present context (see its report in OEEC 1954). Lacroix and Aboughanem were sent this time on a ‘fact-finding tour’ (OEEC 1954: 5) under the auspices of the Mixed Working Party for Statistical Questions to survey the employment and unemployment statistics available in Member countries. In their reports, these experts set out the advantages of statistical systems based on the national security system (social security registers) and those based on labour force sample surveys, the examples of which were to be found in the UK and the US respectively.¹⁷⁴ They also visited Sweden, Denmark and Italy, gathered direct information in France and information in writing from West Germany, using the UK and US as the paradigmatic cases.¹⁷⁵ Aboughanem and Lacroix formulated recommendations on ‘the improvement of the comparability of manpower statistics’ presented to the Manpower Committee during its ninth session in December 1950 and subsequently submitted to the Council for adoption.¹⁷⁶ The Council did so during its January 1951 meeting, inviting member countries to bear in mind the resolution of the sixth ICLS to ‘undertake the studies necessary to set up as soon as possible labour force sample surveys’, and, at the same time, ‘to develop and improve their labour force statistics based on registration systems covering the economically active population [...] and to develop detailed breakdowns, specifically on regional and occupational bases’.¹⁷⁷

At the same time, the Council instructed the Secretary-General to ‘approach the appropriate services of the United States Economic Co-operation Administration and explore whether Technical Assistance Funds can be made available to Member

¹⁷³ See, for example, the introductory statement to the OEEC technical assistance mission No 105 on sample survey methods for labour force statistics in 1952: ‘When in 1948 the Manpower Committee of the OEEC began its work of planning the manpower side of the European Recovery Programme, the needs of more complete, accurate and comparable statistics was felt almost at once’ (OEEC 1954: 5).

¹⁷⁴ See Manpower Committee, Report of the Mixed Working Party for Statistical Questions, First Part, Methods Used in the UK and in the US for the Compilation of Employment and Unemployment Statistics, 5 April 1950, OECD Archive MO(50)17, and for the Second Part (Conclusions), 7 August 1950, MO(50)31.

¹⁷⁵ See Annex, Note on the Systems Employed in Some European Countries for Obtaining Employment, Unemployment and Manpower Statistics, 7 August 1950, MO(50)31, p. 13f.

¹⁷⁶ *ibid.*: 11-12.

¹⁷⁷ Council, Minutes of the 122nd Meeting, 19 January 1951, in: OECD Archive C/M(51)3 (Prov.). Recommendation of the Council on the Improvement of the Comparability of Manpower Statistics, adopted by the Council at its 122nd Meeting on 19 January 1951, 22 January 1951, OECD Archive, C(51)8(Final).

countries which intend to set up labour force sample surveys'.¹⁷⁸ Equally importantly, it was intended to convene a meeting of statisticians of the Member countries responsible for preparing the labour force surveys in their respective countries, to ensure that these would produce comparable sets of data based on 'identical classifications of the various groups of persons in the various countries'.¹⁷⁹ These statisticians met in Paris in May 1951 under the chairmanship of André Aoughanem. StBA president Fürst, BMA *Oberregierungsrrat* Scharlau, and StBA *Oberregierungsdirektor* Horstmann represented Germany. In an account of the current problems of employment and unemployment statistics, the German officials hinted at the incomplete coverage of the BAVAV employment statistics, pointing out that 'the continuation of this method is becoming increasingly difficult'. Sample survey techniques were incorporated despite 'financial difficulties', emphasis being laid on the 'training and recruiting of investigators and the scope of the survey'.¹⁸⁰ The statisticians discussed technical practicalities against the background of national experiences, such as the period covered by the surveys, and concluded that figures should be tabulated according to the number of hours worked during the week of the survey. They additionally proposed basic definitions concerning the classification of the population covered, and assessed the costs of sample surveys in individual countries, from which it was suggested that a European Technical Assistance Mission to the US and Canada be sent to study the actual operation of labour force sample surveys. It was also suggested that a second meeting should be held at which the statisticians could discuss the difficulties they had encountered 'in carrying out the recommendations proposed at this meeting'.¹⁸¹ The Manpower Committee approved the statistician's report on 20 July 1951, and the Council followed in September that year.

¹⁷⁸ Ibid.: 2

¹⁷⁹ See Manpower Committee, Note on the Work of the Meeting of Statisticians to be Held Shortly to Implement the Recommendation of the Council on the Improvement of the Comparability of Manpower Statistics C(51)8, 10 April 1951, in: OECD Archive, MO(51)12. At the same time, the recommendation made clear that member countries could retain their powers to obtain in addition statistics produced from administrative or other sources than those adopted 'on a common basis' (ibid.).

¹⁸⁰ See Manpower Committee, Report of the Meeting of Statisticians Convened in Compliance with Council Decision C(51)8(Final), 29 May 1951, OECD Archive, MO(51)21, p. 3.

¹⁸¹ Ibid.: 6.

In preparation of the mission, Edwin D. Goldfield¹⁸² of the Bureau of the Census, accompanied by S. Foy, statistical expert of the European Cooperation Administration's Labour Division, visited most of the European countries involved in order to gain an overview of the statistical work done so far and to draw up a programme for the mission. Subsequently, the mission, between February 26 and the end of March visited, among others, the Bureau of the Census in Washington and the UN Statistical Office in New York¹⁸³, and re-convened in July 1952 under the chairmanship of Raymond Lévy-Bruhl¹⁸⁴ under presence of Gertrude Bancroft, coordinator for Manpower Statistics at the US Bureau of the Census. With some minor changes – the experts had to grapple with making comparable the period the questionnaire referred to (the employment situation was to be inquired not on the interview day only but during the week in which the interview took place), and introduced the age of fourteen years or more to be included in the survey – a new recommendation was issued and adopted by the Council in October 1952.¹⁸⁵ The preparatory committee for the German *Mikrozensus* would take up this recommendation, above all the classifications of the population of working age (cf. StBA 1953: 52f.).

After returning from Washington, Horstmann published some 'reflections on statistics of the economically active population' in the DStG organ *Allgemeine Statistische Archiv* (Horstmann 1952). Horstmann's essay arguably brought together for the first time for the German context the various international sources of the concepts which underlay the measurement of human economic and professional activity. He cited UN, ILO and US sources, and mentioned the importance of the OEEC for the dissemination of the labour force concept in the European context (Horstmann 1952: 250). Importantly, Horstmann compared the procedures of the German 1950 occupational census with those of the monthly US Current Population

¹⁸² Edwin D. Goldfield (1918-2005) held various positions at the US Census Bureau from 1940-1975, such as Assistant Director for Program Development, and Chief, International Statistical Programs Center. See the online Oral History Programme of the US Census Bureau, http://www.census.gov/history/www/reference/oral_histories/ (accessed 22 February 2011).

¹⁸³ Among the 17 members from nine European countries were Kurt Horstmann (Chief of Division, StBA), and Raymond Lévy-Bruhl (Chief of the Statistical Division, Ministry of Labour) on behalf of France.

¹⁸⁴ See Comité de la Main-D'Oeuvre, Rapport de la Réunion des Statisticiens Convoqués en Application de la Décision du Conseil, 11 July 1952, OECD Archive MO(52)20. Germany, this time, was represented by Horstmann (StBA), Scharlau (BMA), and Luyken (BMA).

¹⁸⁵ See Recommendation of the Council Relating to Labour Force Sample Surveys, adopted at its 196th meeting on 31st of October 1952, OECD Archive C(52)227.

Survey (CPS) with a view to arrive at unitary concepts and internationally comparable figures for employment as suggested by these transnational bodies. At that time, the preparations on a representative survey within the StBA were already underway, then under the name of ‘baby census’ (Zopfy 1951a: 229). Horstmann’s elaborations were meant to inform these preparations and to suggest additions to censuses undertaken in West Germany with information on job’s outside the individual profession and on short-term changes between employment, unemployment and non-employment (*Nichterwerbstätigkeit*) – all of which were considered ‘indispensable for the observation of how human labour force is used’ (*zur Beobachtung der menschlichen Arbeitskraft unbedingt benötigt werden*, Horstmann 1952: 254).

5.3. On the Mathematisation of Statistics in Post-War West Germany: From Tables to Formula, from the Empirical to the Abstract?

As we have noted, representatives of German statistical discourse came to realise post-1945 that their reasoning and methodological equipment was rather untouched by international developments in mathematical statistics. For mathematical statisticians, especially Anderson, the intellectual autarky imposed on the discipline by the Nazi era only aggravated an intellectual attitude that had been crucially formed at the turn of the twentieth century. The ‘divide’ (*Kluft*; Anderson 1935: 3) between German and international developments was mainly due to the influential social statistical work of von Mayr and Zahn – both sceptics of advanced mathematical methods in statistics (see section 3.5.4). This discursive landscape began to be transformed during and after the Second World War by various forms of ‘mathematisation’.

I would argue that mathematisation in statistics operated as a particular discourse in the language of statisticians, whether of mathematical, social or official education and training. I take the idea of mathematisation as discourse from Hesse’s study on post-war German economics (Hesse 2010). His study, inspired by Luhmann’s systems approach and Foucauldian discourse theory, conceptualises

‘Americanisation’ and ‘mathematisation’, as ‘semantics of progress’ (Hesse 2010: 320-334). Progress, following semantic analysis, was not understood as the transfer of particular content and knowledge from the American economic disciplines to Germany. It would have been difficult to define what is American about American economics, and, concomitantly, impossible to think which German scholars or economic theories were ‘Americanised’ during the 1950s and 1960s. Rather, both elements, according to Hesse, served as a semantic tool to organise knowledge within economics. ‘The concept is the historical message, not the content’, as he summarised (Hesse 2012: 22). Mathematisation in economics was introduced as the central aspect of an Americanisation discourse (Hesse 2010: 326f.).

Following Hesse’s remarks, this section argues that mathematisation as discourse served as a semantic tool for contemporary statisticians to order knowledge within their discipline in times of rapid change. Mathematisation should not be understood as the increasingly widespread use of mathematic calculations within statistics otherwise untouched. The opposition between mathematical and non-mathematical statistics simply was not as clear-cut as the rhetoric might suggest, not least because statistics have always been concerned with counting *and* the establishment of relationships between the elements counted – all of which requires basic algebra. Rather, the precarious and contested discursive opposition between mathematical and non-mathematical statistics served to connect and make intelligible changes within the discipline in institutional and intellectual terms from the late 1940s. In this regard, various episodes have already been identified (Chapter 3.5.5): the DStG committee ‘sampling methods’ chaired by Hans Kellerer and his seminars on representative sampling in June 1952 and October 1954. Both institutional spaces helped to disseminate representativeness – unthinkable without probability theory and mathematical calculation – as a statistical concept (and practical technique). Section 5.2 above also noted the OEEC and ILO channels through which the representative method most likely disseminated from the US to the West-German official statistical infrastructure.

This chapter provides further evidence on the discursive shifts *within* the statistical discipline. Mathematisation was a distinctively imprecise notion, comprising various meanings. Such polyvalence renders its contemporary usage all

the more surprising. At the same time, it underscores the argument proposed here: mathematisation as discourse was less concerned with mathematics than with various conceptual and institutional changes expressed *as* mathematisation. Mathematisation thus refers both to more habitual characteristics of leading statisticians (their education, skills and knowledge), and particular statistical methods and theories (e.g. sampling theories, formulas), against the backdrop of which administrative and social statisticians attempted to keep their autonomy.

Dr Marcel Nicolas¹⁸⁶ essay published in a series of ‘treatises in economics’ (*wirtschaftswissenschaftliche Abhandlungen*) at the Free University, Berlin deserves particular attention in the present context for two reasons (Nicolas 1952). It can be considered a boundary case precisely in that throughout the text the mathematical and the empirical, non-mathematical thread of contemporary statistics was evident. Second, the fact that BMA labour administrator Dr Galland knew his essay¹⁸⁷ allows us to establish a discursive link to the state administration and those who used statistical methods to produce numbers and tables. With regard to the first point, Nicolas’ account serves as a suitable example to demonstrate how porous was the ‘boundary’ between mathematical and social statistics, between the abstract and empirical numbers. Mathematics was deeply rooted in statistical discourse: the question for Nicolas was just how to keep social statistics ‘pure’ from mathematics as defined by mathematical statisticians. As I show, Nicolas’ discourse followed a third path, one that is explored in this chapter under a neo-Kantian label.¹⁸⁸ Through notions such as ‘transposition’ and ‘isomorphism’ Nicolas attempted to account for mathematics within statistics without using the word ‘mathematics’. Instead, Nicolas spoke of isomorphic methods.

This point is again explored in Chapters 6 and 7, where I show that Galland’s style of reasoning, as that of many of his peers within the labour administration, was

¹⁸⁶ Dr. Marcel Nicolas then was senior lecturer (*Privatdozent*) at the Free University in Berlin.

¹⁸⁷ Galland’s magisterial work on the West-German statistics of unemployment and employment cites Nicolas’ book as one of the general works on statistics, see Galland (1956: 407). Galland cited neither Anderson’s work nor that of any other (international) mathematical statistician.

¹⁸⁸ Neo-Kantianism here refers to a broad philosophical movement in German universities from the 1860s onwards (Coplestone 1963: 361-373; 436). Two major groups or schools can be distinguished: the Marburg School and the Southwest or Baden School. Coplestone associates with this tradition ‘a concern with the forms of thought and of the judgement rather than with objective categories of things’ (Coplestone 1963: 436). The Frankfurt School in social statistics must have been influenced by some strands of the Southwest School (see the brief mentioning in Klein (2004). Anderson, in his contribution to the 1953 DStG annual meeting mentions Windelband and Rickert granting this observation some plausibility (Anderson 1953: 290).

made up of the same discursive boundaries between the abstract and the empirical. Chapter 6 shows that Galland was reluctant to abandon detailed, local knowledge for the smooth amalgamations presupposed by statistical representativeness. Chapter 7 explains the partial resistance of labour administrators against the idea of forecasting manpower requirements by numerical estimates as an effect of their thoroughly empiricist style of reasoning.

My argument here also revolves around the reasoning of mathematical statisticians with reference to three examples: Anderson, Kellerer, and Kallmeyer, proponents of advanced mathematical knowledge in social and official statistics (see Appendix I). Mathematisation for them was indeed a matter of whether or not statisticians possessed knowledge of advanced mathematical calculus. With the aim of expanding the epistemic authority of mathematical statistics, their reasoning broadly translated ‘mathematisation’ into educational background and methodological proficiency. As Kallmeyer’s example particularly shows, the ‘mathematical’ camp even downplayed the differences between mathematical and social statistical methods. Such reasoning seemed to eclipse the fact that only mathematically trained statisticians were capable of speaking the language that allowed for the levelling of differences in the first place. As I argue, it was only the mathematical language – fundamentally different from Nicolas’ empiricist-imaginative distinctions – that allowed the establishment of rules (extent and character of measurement errors in Kallmeyer’s case) by which departing viewpoints between the two camps could be mediated.

Integral to my claims is assessment of the DStG 1961 annual meeting which discussed the education and training of statisticians. This meeting gathered professors in statistics and economics as well as StBA and LStA practitioners and serves as an example to outline some of the changes within the discipline as perceived and discussed by professionals and academics. With the example of the DStG, which, despite its wide range of members at the time primarily constituted a space for official and administrative statisticians, a more complex picture of the statistical-professional landscape can be drawn. German official statisticians did not feel themselves to be under attack only from colleagues of a formal mathematical background. The relationship between statistics and economics (especially

econometrics), as well as between statistics and electronics, equally posed pressing problems as to the self-understanding of professional statisticians. The advancement of mathematical statistical theories, as the 1961 discussions suggest, was particularly felt with regard to shortcomings in statistical training and education at German universities.

5.3.1. Intellectual Transitions

Social statistics by the beginning of the twentieth century was defined as ‘the science of the empirical number’ (Wagemann 1935: 20).¹⁸⁹ In opposition, but, as we will see, not entirely independent from this, Wagemann defined mathematics as ‘the science of the pure number’. The former definition points to one of the central aspects of contemporary statistical reasoning: statistics were first and foremost considered to be an administrative activity involving the recording of various data on things as empirically given. This distinction continued to pre-occupy statisticians’ minds in the post-war era. As Nicolas emphasised, ‘Statistics are obliged to verify by arduous detail work the characteristics of their research objects in reality’ (Nicolas 1952: 63). Statistics, as Wagemann’s definition already suggested, was concerned with *empirical* notions, to be found in the empirical world and ‘a priori equipped with certain characteristics to be embraced by the statistician as they are’. Mathematicians, however, as Nicolas understood them following Wagemann’s neo-Kantian distinction, resorted to ‘pure ideas’ (*reine Vorstellungen*) (Nicolas 1952: 63), which could be formally ordered in a way that was most convenient or suitable to the given task. As Nicolas postulated: ‘It is obvious that mathematics will choose these characteristics in ways that will be particularly promising with regard to the set task of formal order and operation. That is why order and operation in mathematics generally can be driven so much further than in statistics’ (Nicolas 1952: 63-4).

Where the statistician put his greatest efforts in counting (and processing) the characteristics gathered from the empirical evidence, (for classical social

¹⁸⁹ Prof Dr Ernst Wagemann (1884-1956), economist and statistician, professor at the Friedrich-Wilhelm University in Berlin since 1919, was president of the Reich Statistical Office (1924-1933) and founder of the Institute of Business Cycle Research in 1925. See Tooze (2001: 110-113) for further biographical detail.

statisticians, all the characteristics counted and tabulated to produce labour statistics needed to be contained on the employment files), the mathematical statistician seemed to be able to deliberately order his ideas merely following the axioms of the mathematical calculation. As Nicolas noted in a tone which mirrors the realist rhetoric of nineteenth-century statistics, '[statistics, JM] always accepts the notions as they are given [...] it is not part of its job to define empirical notions or to research the causes of their emergence, [statistics] is solely concerned with their formal order' (Nicolas 1952: 28). Wagemann, however, towards the end of his book deliberately muddled his own distinction. For him '[o]nce an empirical number occurs to be discussed methodically there must be, according to my view, a statistical operation, and that independent of whether this empirical number is really given as usually is the case in social statistics or hypothetical as in atomic physics, or demographic extrapolations' (Wagemann 1935: 218). A distinction between pure and empirical number, according to Wagemann, was imprecise for the simple fact that any empirical number, in the course of minor statistical processing was put in relation with the pure number. 'Every arithmetic operation establishes a link between the statistical and the mathematical number' (Wagemann 1935: 218).

Wagemann's conflation baffled Nicolas and his neat distinctions between the empirical and the abstract, between the summarised description of situations ordered in *tables*, and the calculatory operations epitomised by the *formula* (Nicolas 1952: 36, 64 for references to *Tabelle* und *Formel*). His direct response to Wagemann, however, would not cede to the latter's conflation. Following Neo-Kantian ideas, he – quite at odds with his earlier remarks – transgressed the limits set by 'classical' statistical discourse for the work of social statisticians i.e., the statistical enumeration and tabulation of empirical elements alone. A statistical element, according to Nicolas, does not have to be exclusively realised 'within the empirical world'; it encompasses also a 'realisable element'. Accordingly, empirical notions are not only those which are 'actually realised within the empirical world', but also 'realised imagined' ones. He labelled these 'notions *transposed* into the empirical world' (Nicolas 1952: 47; emphasis in original). With the notion of transposition, Nicolas transcended his own realist restriction put on the nature of statistics as only concerned with the empirically given, without, however, giving in to the propositions

put forward by mathematical statisticians. For contemporary statisticians, as Nicolas imagined with regard to the idea of transposition, not only were representative enquiries, demographic extrapolations or probability calculations part of ‘real statistics’. ‘Sentimental values, fabulous creatures (statistics of hell!) could also – through transposition into the empirical world – be made available to statistical treatment proper’ (Nicolas 1952: 47). One thing was sure, however: ‘There is no mathematical statistics’, as his final chapter proclaimed (Nicolas 1952: 86-89). Here, in search of a disciplinary autonomy for social statistics, he further introduced the natural scientific notion of ‘isomorphism’ to proclaim that if, in some cases, statistical methods were ‘formally equivalent’ to mathematical methods, this was more a matter of isomorphism than the introduction of mathematics into statistics (Nicolas 1952: 87).

Whereas Nicolas attempted – through the introduction of ‘isomorphism’ and ‘transposition’ into the statistical language – to keep mathematics out of the statistical enterprise proper (or, vice versa, to re-define mathematics in statistics, undeniably in use, as something else), Kellerer straightforwardly embraced the ‘functional change of statistics’ (*Funktionswandel der Statistik*, Kellerer 1960: 7) he himself helped to drive forward.¹⁹⁰ Statisticians, according to him, were falsely taken to be ‘table servants’ (*Tabellenknechte*) merely concerned with questionnaires, tables and graphs. In fact, ‘statistics are not primarily a technique of number production and processing, but above all a scientific method’ (Kellerer 1960: 7).¹⁹¹ Nicolas postulated that the ‘Anglo-Saxon, French and Italian literature hardly offered anything new’ for the ‘conceptual side of statistics’ (*begriffliche Seite der Statistik*), however rich was their contribution to statistical methods (Nicolas 1952: 10). Kellerer, by contrast, cited a paragraph from Jones and Robert’s paper (1952) to argue for statistics as a mathematical method (Kellerer 1960: 13-14). Jones and Roberts had already argued that ‘[s]tatistical methods derive chiefly from the tools of

¹⁹⁰ His 1960 publication (Kellerer 1960) was considered an ‘exceptional contribution to the dissemination of statistical thought’ (*ein einmaliger Beitrag zur Verbreitung des statistischen Denkens*, Schaich and Strecker 1976: 198). This was in its fifteenth edition and had sold more than 135 000 copies, by 1973.

¹⁹¹ The notion of *Tabellenknechte* is indicative of a longer history of debate on the place of statistics in the study of the state. Nikolow recounts some of the early nineteenth-century controversies between philosophers and historians at the University of Göttingen and the then new generation of numerical statisticians. The latter precisely were despised as ‘ordinary table makers’ or ‘table servants’ in their attempt to quantify and tabulate state measurements (Nikolow 2001: 43-52). It can be argued that Kellerer’s re-appropriation of the term marked an analogous transformation of the statistical field as expressed in these semantics. This time, however, the boundary was not drawn between the ‘table’ and the ‘word’, but between the ‘table’ and the ‘formula’.

mathematics and it is quite natural to regard statistics as a branch of applied mathematics. Many of the fundamental advances in statistical method, as opposed to extensions of the applications of the method, can be made only by people of high mathematical attainments' (Jones and Roberts 1952: 6).¹⁹² Kellerer chiefly applied probability theory in the field of random sampling.

Oskar Anderson, Kellerer's teacher, argued similarly: Anderson (1935) already deplored the backwardness of German statistics with regard to international statistical theory and reported a concomitant disinterest among international colleagues towards the "elementary" and 'mathematically naïve' makeshifts' within the German statistical profession ("elementaren" und 'mathematisch naiven' Behelfen', Anderson 1935: 3). For him, the difference between mathematical and non-mathematical statistics was not apparent in whether or not mathematics were applied, but 'at best in whether the mathematics applied remained comprehensible to the administrative or specialist statistician' (Anderson 1954/1965: 17). For Anderson, the main reason for the distinction between mathematical and non-mathematical statistics was an effect of different backgrounds in training and qualification of statisticians, the boundaries of which ran between those who mastered the reasoning of modern statistical theory, and those who did not. Anderson's own position was unambiguous in this respect. The standards for a 'science' to be part of the university curriculum must not be set by whether or not it was 'easily comprehensible for a 'senior government official'' (Anderson 1954/1965: 17). As noted above, Anderson defended a particular notion of 'theoretical statistics' in the attempt to cut across the boundaries in German statistics between mathematical and non-mathematical statistics.

For Kallmeyer, *Regierungsrat* at the StLA Schleswig-Holstein and former specialist in Nazi gasification methods, the views seeming to divide the 'mathematical and the classical camp' were actually not as irreconcilable as the 'great disagreement during the past years' (*große Meinungsauseinandersetzung der letzten Jahre*), might have suggested (Kallmeyer 1956: 19). With regard to error and

¹⁹² The context in which this paper was prepared is quite noteworthy: Howard L. Jones was employed at the Illinois Bell Telephone Company, and Harry V. Roberts at the University of Chicago. Both prepared the paper at the joint request of the National Office of the American Statistical Association and the Association's Committee on the Training of Statisticians. 'The object was', as outlined in an editorial preface, 'a concise statement of the field of statistics and its career opportunities that could be given to young people and others...' (Jones and Roberts 1952: 6).

error propagation at least, the differences did not run along the question as to whether or not measurement errors were an unwelcoming but unavoidable by-product of the statistical activity. Both mathematical and official statisticians were aware of their existence. The point for Kallmeyer, himself a proponent of mathematics, was that mathematical calculations offered a language to deal with partial or erroneous information. As Kallmeyer stated: ‘The common rules about error propagation state that the views [dividing ‘classical’ and ‘mathematical’ statisticians, JM] are actually not that irreconcilable, if only the boundaries within which errors might compensate, propagate or multiply are clearly defined’ (Kallmeyer 1956: 19). Such mathematical language thus helped establish ‘rules’ (rational rules in the eye of statisticians) that established when and how judgements could be made on the basis of erroneous or partial information. The establishment of such rules, however, whether concerned with the range or the direction of error, required advanced mathematical knowledge. Such mathematical processing opened up a whole new discursive space. This space transformed the issues Nicolas grappled with in a realist manner, that is the proof of statistical entities *in* reality, into a language adhering to mathematical methods as a means to establish conventional rules about the limits of information *about* reality. Obviously, among statistical experts, only if these rules were known were the results they allowed to produce actually trusted.

5.3.2. Institutional Transitions

As assessment of the discussions on the education and training of statisticians during the 1961 DStG annual meeting reveal, German official statisticians not only felt under attack from colleagues more formally educated mathematically. The relationship between statistics and economics and between statistics and electronics, posed equally pressing problems on the self-understanding of professional statisticians. The advancement of mathematical statistical theories was particularly felt with regard to the shortcoming in statistical training and education at German universities – a fact also recognised by the German Research Council

(*Wissenschaftsrat*), whose memorandum in 1960 proposed twenty-two new chairs in statistics.

Academic statisticians advocated a stronger emphasis on theoretical and methodical teaching within universities as a necessary pre-condition for their later application in extra-statistical fields. As Stange remarked, ‘modern statistics advance so quickly [...] that already a specialist statistician could not keep up with it in every direction’ (DStG 1961: 370). The solution, it appears, was to further expand proper statistical training and education and neglect their combination with substantial disciplines. Kellerer equally advocated a ‘very thorough methodological training including mathematical statistics’ (*sehr gründliche statistische Methodenlehre einschließlich der mathematischen Statistik*, DStG 1961: 371) in the wake of which students would then specialise in a particular applied subject. Münzner feared for statistical training given the extension of economics into other disciplines, such as sociology and political sciences. ‘Specialists’, for Münzner, were not only still necessary but also more adaptable since fully trained mathematicians with an interest in applications (e.g. economics) had fewer problems working their way into economics and business research than economists and business researchers into ‘advanced statistical methods’ (*höhere statistische Methoden*, DStG 1961: 368).

For official statisticians, by contrast, technical questions of data gathering and interpretation, as well as care for the empirical foundations of social and economic statistics, were key issues. Willi Hüfner (see Appendix I) doubted that ‘methods and techniques of data gathering and interpretation could be withdrawn from higher education to be left to statistical offices without damage to statistics in their entirety’ (DStG 1961: 371). What Kellerer and Stange demanded for mathematical statistical methods, Hüfner felt applied to statistical methods and techniques: a ‘thorough education’ (*gründliche Ausbildung*) since, otherwise, they were not to be managed. He even suggested gathering these techniques in a ‘business operations of statistics’ (*Betriebslehre der Statistik*). Bartels (see Appendix I) equally considered ‘inappropriate’ (*unzweckmäßig*) the establishment of special statistical faculties for a universal statistical education to be applied later in particular subjects. Bartels, emphasising the empirical nature of statistical inquiries reckoned that statisticians ‘generally should primarily learn *what* is to be measured and only then *how* to

measure'.¹⁹³ The substantial-empirical field, the 'factual presuppositions' (*sachliche Voraussetzungen*) as Blind put it, defined the statistical methods to be applied and not the other way round. As to the relationship to economics, Bartels as an economic statistician was rather open suggesting a similar education for professional statisticians and economists based on the similar content, statistical definitions and classificatory systems used. The field of electronics was a further issue for professional statisticians. According to Bruckmann, this extended well beyond the immediate technical ability to operate an electronic computer. Electronic data processing and the technical knowledge involved did not necessarily put statisticians in a position to programme by themselves. 'He [the statistician, JM] should, however, be capable to explain clearly and understandably his problems to the data centre, and therefore he needs to know something about the problem language' (DStG 1961: 369).

Menges, Professor of Statistics in Saarbrücken, further complicated the situation by bringing into play issues of how to incorporate statistical training into the rising field of economics and business research. Professional statisticians, according to him, could learn the respective techniques during internships in statistical offices (DStG 1961: 368). In any case, university lecturers should not only be concerned with training junior statistical staff for offices.

5.4. Emancipation from the Nazi-Past and Education of the Public: Statisticians, Academic Aristocrats and the Contested Credibility of Public Figures

Chapter 6 demonstrates that discussions on the future of the employment files considerably intensified once diverging figures on employment between the StBA *Mikrozensus* and the BAVAV employment files had spilled into the public realm. As will be shown, the complex 'alchemy' (Desrosières 2005/2008) between the two distinct statistical activities of interview-based sample survey and file-based comprehensive count translated into diverging figures which, to the dismay of all

¹⁹³ Bartels gave a presentation on the tasks of statisticians in preparation and evaluation of statistics during the 1961 meeting. I could not incorporate the published version here (Bartels 1961), which is unfortunate since I expect further clarifications on the issue from the perspective of the official statistician.

statistical experts, were compared by journalists etc. without reference to the reasons why such comparison was difficult. This section anticipates the discussions presented below to provide more general historical evidence both for the statisticians' various stances towards the publication of information on the limitations of their results, and the wider public's stance towards statistics and their numerical productions. Statistical experts, to a certain degree, expected ambiguous results between StBA Mikrozensus and BAVAV labour statistics. At least, due to their inside knowledge of the administrative and organisational processes involved in the production of these figures, experts gathered at, for instance, the StBR potentially possessed an explanation for why these figures might differ. Differences in methodological training, intellectual attitude and professional background, however, made labour administrators particularly suspicious of the newly established *Mikrozensus*. In that sense, issues around accurate results could easily be tainted by what one faction *believed* to be a superior method of data gathering.

As soon as the public took up the matter of diverging figures, however, official statisticians and labour administrators alike considered that the statistical authority or officiality of the figures as such was at stake. From a statistician's point of view, divergent figures provoked the public's mistrust: different figures for the same object might be interpreted as a statistical lie or manipulation. Thus, with figures diverging, it became necessary not only to discuss the reliability of the statistical process involved in creating the labour statistics (and concomitantly, the MZ), but also to define the extent to which the ambiguity of the official figures should be allowed to spill into the public realm. Both issues – error and accuracy, and credibility towards the public – were interrelated. Accurate data, for statisticians, was the primary reason to assume consumers found them true and hence believed in them (without their necessarily using the term 'credible'). Both, however, related to different spaces of testing and (statistical) expertise. Whereas the establishment of accuracy and testing of results took place within the producing divisions of either the StBA or the BAVAV, and derived much of its legitimacy from statistical theory and the techniques of calculation, questions of credibility referred to the consumption side of statistical productions, that is the public in its various aspects and its capability to read and interpret statistics. Both spaces utilised different languages.

Whereas insiders within the statistical profession talked about numbers and their veracity following the methods of the discipline, this language usually fell silent as soon as the figures entered the public realm. Once published, pure figures – without admission or exception – either ‘spoke for themselves’ or were left to be interpreted by others. The language within which the statistical profession discussed problems of ‘approaching reality’ (reliability of measurement, significance tests, and theories of error) was rather unsuitable for the interested albeit uneducated citizen. Fundamentally, the public was in no position to judge.

Statisticians in post-war West Germany adopted different rationales as to how much of the meta-data accompanying the production of official figures should be released to the public. To adopt the terminology of Avilès (2008), they differed on the extent to which the ‘rhetoric of anti-rhetoric’ by which statisticians tend to promote their science should and could be left behind in favour of some explanatory notes, error estimates or other forms of description about official figures, whether numerical or textual. It will be shown that the respective rationales can broadly be assigned to the different ideal-types of German statisticians presented above. Mathematical statisticians advocated a generous publication of the limitations of the data collected and published. Oskar Anderson in particular pressed official statisticians to assume that responsibility. Oskar Morgenstern’s (see Appendix I) treatise *On the Accuracy of Economic Observations* serves as another case in point (Morgenstern 1950/1963).¹⁹⁴ German official statisticians took an unequivocal stance on the matter. As Fürst proclaimed in the founding years of the StBA, objectivity and neutrality were ‘[a] prime principle’ (*oberstes Gesetz*, Fürst 1949: 436). Accordingly, the publication of measurement errors themselves potentially erroneous was deemed as dangerous to these ideals as the publication of inaccurate results. Both, in principle, should rather go unnoticed for the public.¹⁹⁵ As I show, for German official statisticians any suggestion in the direction of an error estimate or the indeterminacy of measurement would have seriously conflicted with their self-understanding as an ‘empirical’ science.

¹⁹⁴ Morgenstern’s 1950 book, re-edited as an expanded version in 1963, appeared in Germany as a single monograph under the auspices of the DStG in 1952.

¹⁹⁵ The viewpoint of administrative statisticians, or labour administrators statistically trained will be presented in Chapter 8.2.3 where I discuss the future of the G-files, a representative sample of the employment files then abolished. In this context, the issue of whether two diverging figures should be published cropped up again.

It was the official statisticians' rather sceptical perception of the German public's 'collective psyche' towards statistics that foreclosed a greater confidence in publishing measurement errors or other information on the limitations of results. Konrad Krieger's* example may be taken as a paradigmatic case of how official statisticians perceived the German post-war public. Krieger, then vice president of the StLA Bavaria, depicted the 'German people' as considerably perturbed by numbers. Interestingly, Krieger's essays (1953; 1954) were written in the context of a broader contemporary DStG initiative on 'education towards statistics' (Krieger 1954). Education of the public had been on the minds of professional statisticians since the early days of the official statistical enterprise, especially among those statisticians gathered under the DStG umbrella. Such consideration for the education of citizens potentially conflicted with the way in which official statisticians handled the publication of measurement errors. By withholding such information, their position did not demonstrate great confidence in the numerical literacy of the citizens they pretended to educate in reading and understanding statistics. As will be shown, their self-image as 'technical rationalists' (*technische Aufklärer*, according to Weischer (2004: 166)) seemed to be seriously tested by the post-war situation in Germany when statistics were widely considered an epitome of both Nazi and Allied rule. Arguably, the perception of producers and consumers of official statistical data respectively was one based on mutual mistrust: statisticians feared the 'irrational' reactions of German citizens towards censuses and numbers. 'Germans', as statisticians saw them at least, were struck with deep-seated 'anxieties' (*Beklemmungen*, Krieger 1953) towards statistics to the effect that they misrecognised the importance of official figures and categories for public life and democratic order.¹⁹⁶

The *topos* of Germans 'anxieties' towards statistics in the immediate post-war period has not yet been thoroughly researched. Historians, however, have widely

¹⁹⁶ Franz Zopf, statistician at the StLA Bavaria, used a similar term (see Chapter 4.7): He spoke of the 'suspicion' (*Argwohn*) of the German public towards statistics. There is further evidence from within the statistical professional discourse to support the 'suspicion'. Krieger observed that the German public reacted 'eruptively' and 'virtually wildly' (*geradezu stürmisch*) against the first population census in West Germany in 1950 (Krieger 1953: 198). Oskar Anderson, eminent mathematical statistician at the University of Munich, began his textbook as follows: 'Germany as well as almost all of post-war Europe is still statistic-weary'. The reasons cited were the German planned economy, particularly between 1939 and 1949 and its extensive replacement of market mechanisms by administrative regulations based on 'files and mainly figures'. Just like Krieger, Anderson invoked the de-nazification measures by the allies that were 'simply inexecutable without comprehensive questionnaires' (Anderson 1954/1965: 1).

documented that the denazification and re-education policies initiated by the Allied was by and large conceived as a negative experience by Germans (Biddiscombe 2007; Borgstedt 2009). Crucially for the present context, the questionnaire – widely used in all four occupation zones as one of the main technical aspects of the denazification programme – became a ‘symbol of the political purge after 1945’ (Borgstedt 2006). According to Boehling, the US practices in particular ‘stressed quantity’ (Boehling 1996: 58) to the effect that until March 1946 1.39 million Germans had been processed via their questionnaires (Kleßmann 1984: 87). On pain of serious penalty, Germans who held or applied for any middle- or high-level position had to first fill out the 131 questions about their career experience and political involvement. The questionnaires were sorted out and categorised by military government officers according to the level of political incrimination. Then, if necessary, the individuals were investigated further and the appropriate action taken, whether dismissing the person from a post or blocking her or his property. Boehling estimates that altogether some thirteen million *Fragebogen*, including those from expellees from the East, were completed and returned by the Germans living in the US zone (Boehling 1996: 60).¹⁹⁷

The wide reception in post-war (West) Germany of Ernst von Salomon’s¹⁹⁸ *Der Fragebogen* grants the phenomenon of German ‘statistical scepticism’ a certain plausibility. *Der Fragebogen* became the best-selling book in early post-war Germany, selling some 206.000 copies between its publication in March 1951 and August 1952.¹⁹⁹ Ernst von Salomon used the 131 questions of the denazification form to explore German history from 1918 to 1946 through the lense of his varied and controversial biography.

Crucial for the present context, von Salomon’s literary response can be read both as critical practice against statistical forms of information and indication for the wider prevalence of suspicion against statistical surveys – and ‘the questionnaire’ in particular – among Germans in the post-war context.

¹⁹⁷ The common pun cited by Anderson gives an idea of the omnipresence of questionnaires in the Germans’ collective memory: ‘There is, it was said, the Romantic round arc, the Gothic style pointed arch and the American questionnaire’ (Anderson 1954/1965: 1).

¹⁹⁸ Ernst von Salomon (1902-1972) was a nationalist German author and filmmaker who had fought with the nationalist militias (*Freikorps*) after World War One but kept his distance from the Nazis.

¹⁹⁹ The book was also translated into English, French, Italian and Spanish and altogether sold some 250.000 copies by 1955 (in German).

Arguably, the former point, statistical criticism, informs both form and content of von Salomon's book. The book probably expressed most forcefully what many Germans felt – and, at times, shamelessly exploited by falsifying their personal details: whether a person had joined the Nazi Party, or had supported Hitler, or was even complicit in the abuse of foreign labour, involved subjective explanation that went further than, as Biddiscombe aptly observes, 'anything that could be conveyed by 'yes' or 'no' answers' (Biddiscombe 2007: 183). Von Salomon's lengthy memoir suggested that the autobiographical details sought by the Allies often demanded an extensive and detailed account of one's own life entirely at odds with the form of a questionnaire. In the light of the 1980s census boycott movements in West Germany, von Salomon's book can even be read, following Hannah (2010), as a precursor to a particular 'tactic' of responding to requests of information that was also put to practice then: the production of 'an unmanageable avalanche of narrative' (Hannah 2010: 54). To use the present terminology: speaking in the discursive mode of a 'strong poet', the form of von Salomon's book laid bare the flaws of the denazification questionnaire, its structural inability to capture the richness of one's own life contextualised in history, by bursting the limited space given for the answers with a sweeping and intricate literary response.

Further in line with the discursive position of the 'strong poet', von Salomon introduces his criticism of the denazification programme with a critique of statistical surveys more broadly. In his introductory comments, he emphasised that whenever confronted with a questionnaire 'a tumult of sensations is let loose within my breast of which the first and the strongest is that of acute discomfort'. The author's feeling – in which the discursive mode of the 'strong poet' is chiefly present – is further defined: 'When I try to identify this sensation of discomfort more exactly, it seems to me to be very close to that experienced by a schoolboy caught at some mischief – a very young person, on the threshold of experience, suddenly face to face with an enormous and ominous power which claims for itself all the force of law, custom, order and morality' (von Salomon 1951/1955: 1).

Against this background, I interpret the wide success of von Salomon's book as a positive response by his readers to his criticism of the Allied denazification policies and political purge. The fact that this criticism played with the form of the

questionnaire as one of the main instruments of the purge, and, moreover, explicitly referred to statistical surveys based on questionnaires does not make it sound too far-fetched to regard the success of the book as a certain indication of the public's 'suspicion' towards statistical surveys as a means to detect forms of Nazi collaboration. Obviously, the unease and suspicion was directed against the Allied plan to use the data to segregate the population into different blocs, each of which faced particular treatment with, at times tremendous personal, political and material consequences. Statistical surveys, as seen through the eyes of the public, were never as pure as statisticians wished them to be. Borgstedt has shown that the Allied 'questionnaire', not least because of von Salomon's account of the same name, turned into an ambiguous notion and 'symbol of political purge after 1945' (Borgstedt 2006).²⁰⁰ 'The questionnaire' represented not only an attempt to 'come to terms with the past' (*Vergangenheitsbewältigung*), but also – especially in the form of von Salomon's cynical counter-narrative – demarcated the 'mentality to draw a line' (*Schlussstrichmentalität*) under a past which, by 1951 (the publication of von Salomon's book), was widely considered as worked through and atoned for (*gesühnt*) in the attempt to establish a Western democratic state.

This section further illustrates the *topos* of Germans 'anxieties' towards statistics with reference to two examples. Texts by W. E. Süskind (1901-1970), writer and editorial journalist on politics with *Süddeutsche Zeitung* during the 1950s, and Max Horkheimer (1895-1973) and Theodor Adorno's (1903-1969) *Dialectic of Enlightenment* (1944/2002), a philosophical tract and sceptical analysis of cultural industry and state capitalism.²⁰¹ Their polemics against statistics and numbers give some credit to Krieger's perceptions of an anxiety or suspicion towards statistics. Both works reject statistics as an epitome of state power. Where the statistician adhered to the ideals of neutrality and objectivity enshrined in the language of

²⁰⁰ Borgstedt's (2006) account does well to contextualise 'the questionnaire' as a historical semantic with a rather restricted albeit highly symbolic meaning for contemporaries. In contrast to today's rather unproblematic connotation of the term as a means of market and consumer research, for contemporary Germans, so goes Borgstedt's argument, 'the questionnaire' unequivocally referred to the Allied denazification programme, issues of guilt and discomfort. Borgstedt, however, misses the most obvious linguistic prove for her argument, namely the significant fact that von Salomon's book was simply titled *Der Fragebogen*. Other than, for instance, for the English-speaking readership, Germans were immediately aware of what was meant by the title and hence what the book was about. Significantly, the English translation had to carry the context in the title: 'The Answers of Ernst von Salomon to the 131 Questions in the Allied Military Government 'Fragebogen'.

²⁰¹ *Dialectic of Enlightenment* was written between 1942 and 1944 while in exile in Los Angeles and only published in 1947 in German in a limited edition. An official German re-edition appeared in 1969 only (Wiggershaus 1995: 326f.).

quantification as both a scientific and civic virtue, Süsskind and Horkheimer and Adorno's writings exemplified the co-constitutive other. Both put the richness and hence unrepresentability of personal experiences to the fore – experiences they surprisingly saw at risk of being minimised through the statistical investigation as such. Both standpoints are representative of what Besson (with reference to Volle) called 'statistical fetishism' (Besson 1989: 29). A fetishist standpoint towards statistics confuses the (statistical) indicator with the reality it describes: what is meant to be a description of reality becomes reality itself. Both Süsskind and Adorno and Horkheimer's discourse took the mismeasurements of statistical productions at face value but did not believe in them.²⁰² Epistemologically, statistics and their numerical-productions-cum-classifications were taken for real and, in that monolithic, subjectivity-deforming character, seen to be dangerous to human and societal development. Both attitudes arguably serve to summarise what Bourdieu denounced as 'academic aristocratism' with its 'hatred of statistics (harping on the theme of the 'average') seen as a symbol of all the operations of 'levelling down' which threaten the 'person' [...] and its most precious attributes, its 'originality' and its 'privacy'. There is a contempt for all forces which 'level down' [...]' (Bourdieu 1991: 79). Against the 'broken human being' (Süsskind 1950), hollowed out by statistical averages, academic aristocrats hail the experiences of the 'strong poet'. Following Rorty, a strong poet lifts to the conscious level what everyone feels unconsciously: 'the need to come to terms with the blind impress which chance has given him, to make a self for himself by redescribing that impress in terms which are, if only marginally, his own' (Rorty 1989: 43). Statistics, of course, inherently threaten the poet's personality from two sides. For one, statistical language is often a product of arcane circles strongly associated with the state. The language is only original for those who understand it; it otherwise symbolises foreign rule or heteronomy. Secondly, as already contained in Bourdieu's 'academic aristocrat', the impersonal language of quantification and statistical tables is diametrically opposed

²⁰² Thus, statistical fetishism can be considered as the concomitant reverse of what Desrosières (2001: 340-342) labelled 'metrological realism' and its core assumption of an existing reality that may be invisible but is permanent – even if the measurement varies over time. Metrological realists (in a pure and hence certainly exaggerated form) believe in the law of large numbers, measurement error and standard deviation etc. – as if the reality they observe was independent of the observation apparatus. The statistical fetishists, by contrast, are aware of the nominal, conventional or social character of statistical variables and classifications. Whilst the first do not want to admit the conventional character of statistics, the latter, if they do recognise, often take it as a reason and follow their fetishist attitude and do away with statistics altogether.

to the claim for individual authority. Laws, numbers and evidence easily conflict with the poet's language of individuality, poesy and experience (Peters 2001).

Helmut Kallmeyer, then *Oberregierungsrat* at the StLA Schleswig-Holstein but in rather alarming positions during the Nazi period, summarised the official statisticians' stance towards erroneous data and the publication policies required. His essay²⁰³ brought together the intellectual attitudes of mathematical and 'classical' statisticians towards errors and error propagation. After Kallmeyer recounted, especially for the purpose of official statistics, the rules (in the form of mathematical calculation of error propagation), he deemed it impossible to publish standard margins for errors (*allgemeingültige Fehlergrenzen*) in official statistics for the precise reason that official statistical data were used in various ways by different consumers. The effect of this would be that 'specific errors balance out according to the rules of error propagation' (Kallmeyer 1956: 34). Measurement errors rather would go unnoticed for the public than 'to state an established error without comment since thereby unnecessarily a far too poor idea was conveyed for variously large parts of the consumers of their [the errors, JM] attainable accuracy (Kallmeyer 1956: 34).'²⁰⁴

Mathematical statisticians, by contrast, considered it a primary duty for official statistics to publish information on the limitations of their data. Oskar Morgenstern (1950/1963) in particular, appealed for greater awareness of the possibilities for error in published statistics. His essay encouraged greater honesty in the production and publication of statistics, and argued carefully in favour of sounder understandings of the actual nature of the data on the part of users. His argumentation essentially proclaimed that '[e]veryone has to learn how to live with errors and incomplete information' (Morgenstern 1950/1963: 12). His discussion in support of that statement is too ramified to be reiterated here. But Morgenstern

²⁰³ Kallmeyer's essay (1956) emanated from an earlier debate among StBA president Fürst and Anderson in 1949. Fürst's contribution (Fürst 1949b) was a rejoinder to Anderson's treatment of Bowley's rules on systematic errors in the *Allgemeine Statistische Archiv* of the same year. According to Anderson (1954/1965: 83) his 1949 article and Fürst's rejoinder triggered the debate on systematic errors among official statisticians. I discovered these links too late to be incorporated here, which is unfortunate since I expect further clarifications on the publication issue from both articles. Kallmeyer's article analysed here discussed systematic errors for the purpose of practitioners in statistical offices.

²⁰⁴ Kallmeyer (1956: 34): '...kommentarlos einen festgestellten Fehler anzugeben, denn man würde dadurch einem wechselnd großen Teil der Verbraucher unnötigerweise eine viel zu schlechte Vorstellung der für sie erzielbaren Genauigkeit vermitteln.'

detected one area where he demanded definite action: ‘That is to stop important government agencies [...] from presenting to the public economic statistics as if these were free from fault’ (Morgenstern 1950/1963: 304). For Morgenstern at the time, the greatest step forward was to insist that ‘economic statistics only [be] published together with an estimate of their error’ (Morgenstern 1950/1963: 304-5). He was aware, of course, that this step would require ‘an adequate scientific spirit’ (Morgenstern 1950/1963: 12) among those who produced and used the statistics.

The fact that from the late 1940s the US census provided information on the limitations of the numerical data generated was used by mathematical statisticians as a powerful example to show that their reasoning was adaptable to that of official statisticians. If high-ranking American census statisticians committed themselves to establishing control surveys and publishing their results, how could their German counterparts still continue to suppress such information? US official statisticians came to different conclusions with regard to the publications of data on the limitations of the published data. As Albert Ross Eckler (1901-1991), Deputy Director of the US Census Bureau between 1949 and 1965, stated in a paper given to the American Statistical Association in 1953: ‘It has become a generally accepted principle among professional statisticians that a compiling agency has responsibility for furnishing adequate information regarding the limitations of the data which it collects and publishes’ (Eckler 1953: 15) Such policies had already been around in the late nineteenth-century US censuses but were pursued unanimously across the given social and political context (Conk 1987). With regard to the 1950 Censuses of Population and Housing – the example Eckler referred to – a so-called Post-Enumeration Survey (PES) was put in place as part of a wider program of evaluation of results. ‘This survey was essentially a re-enumeration, on a probability sample basis, of the population, dwelling units and farms in the United States’ (Eckler 1953: 15). The best enumerators and crew leaders were selected and given an ‘unusually detailed training’ in order to insure high quality performance in the PES. Eckler’s paper moved on to present different degrees of accuracy of certain census statistics and comparisons of percentage distributions. The information delivered was mostly textual, but measurement errors were also measured to the effect that their understanding also pre-supposed a minimum understanding of numerical data.

5.5. Technical Rationalists versus Academic Aristocrats: Numerical versus Poetic Language

I propose here to demonstrate that it was also the official statisticians' rather sceptical perception of the German public's 'collective psyche' towards statistics that foreclosed a greater confidence in publishing measurement errors or other information on the limitations of results. This scepticism, as present in Krieger's work, will be further illustrated with two exemplary voices from 'strong poets' (or 'academic aristocrats') who underscored Krieger's perception.

Krieger's articles were inspired by a journey to the US in 1952 where the author could convince himself of the 'figure mindedness' (Krieger 1953: 193) of the American citizens.²⁰⁵ Germans by contrast, in Krieger's opinion, harboured deep 'anxieties' (*Beklemmungen*) against numbers: 'His, the German's realm rather is the abstract notion, are fantasy and sentiment, thus, poles of human imagination opposed to numbers. [...] Unconsciously, the German struggles against the intrusion of numbers into his irrational world' (Krieger 1953: 196). In Krieger's view, there were various reasons for Germans' rejection of numbers, which he advanced in comparison to the American experience (cf. Krieger 1953: 194f.). Yet, Krieger also reminded the reader that the negative stance towards statistics 'is as old as the statistical figure'. He cited Stefan Lorentz who proclaimed in 1928: 'What is essential to us is a planned education of the citizen towards an appreciation of the nature of statistics' (Lorentz in Krieger 1953: 196). Such appreciation was further shattered (in Krieger's view), with the 'inquisitions of the Third Reich and the political questionnaires of the [allied] occupation'. It was through such 'politics' that the 'latent inclination to reject statistical censuses developed into vehement protest' (Krieger 1953: 197).

Süskind wrote about the

'broken human being' (*gebrochene Mensch*) as 'the disintegrated, voided human being, who suddenly due to an inner emptiness means business with the arithmetical average and desires in a lunatic masochism to be the one who is depicted by statistics

²⁰⁵ I could not find out whether Krieger accompanied Kurt Horstmann (StBA) on a trip to the US and Canada under auspices of the OEEC in February and March 1952. It is very likely that he was among the 17 members of the tour. See section 5.2 above.

[...] then the moment has come when the controlled state which all that willingly watched and facilitated the human being's unconditional subjection to statistics collects the human being by turning the statistical 'actual' completely into a 'nominal' whose fulfilment he then enforces' (Süskind 1950).

Statistics, by some commentators outside the profession, were ontologically taken at face value, and, in being monolithic, also dangerous for human and social development. By effectively transferring agency to figures and classifications, statistics and their preference for averages and 'large numbers' were considered a primary cause of massification of the modern human being, and were, with respect to Süskind's example, believed to have paved the way for the totalitarian state. For statisticians, these interpretations were as powerful as they were misleading, since they confounded cause and effect: 'Massification is a process, a development, is dynamic, and statistics its measurement' (Krieger 1953: 198). Statistics were thus not considered a cause of massification, but its indicator.

It was precisely this role that made statistics, in Krieger's eyes, into an eminent rationale tool to evaluate societal developments. Official statistics were considered as vital for an enlightened social order as statisticians rejected the image of the number-crunching technocrat: 'The human being who thinks for himself and cares about an independent judgement needs statistics and derives the law of his actions from them' (Krieger 1953: 198). Conversely, Krieger postulated that due to these irrational rejections of numbers, Germans were much more easily amenable to manipulation in worldly things. Without statistics and facts, the power of judgement is weakened (*Urteilslosigkeit*, Krieger 1953: 196).

Here, Krieger emphasised vividly the somewhat civic mode of official statistics. 'Statistics is a science *by* the social masses *for* the social masses; statistics cannot be only exercised in quiet scholarly retreats' (Krieger 1953: 196, emphasis in original). The 'discovery and interpretation of social phenomena', Krieger continued, 'requires the statistician's connection with everyday life, requires the stimulus of time and the observation of ups and downs in the course of the ever changing depiction of social communities' (Krieger 1953: 196). In this respect, official statisticians considered themselves technicians more than mathematicians. Statistics, as Krieger emphasised, '[champion] clearly defined, palpable and practical goals' (Krieger 1954: 115). Statistics, for Krieger, were as 'indispensable' for daily

business ‘as money, steel, or cars’ (Krieger 1954: 115). His considerations culminated in speculations on what could have been avoided, ‘if [the German people] before 1933 had been educated – as were other people – to recognise facts and to judge by what they see’ (Krieger 1954: 112).

As Krieger considered statistics tools or mental constructs which could readily be mapped onto the world rather than real entities, a good citizen, who could deploy such tools, was depicted as a public figure rather than ‘a robot’. Where Süskind seemed to confuse an ideal with the actual person (the broken human being), Krieger defended his ideal of rational judgement as only *one* among others that make for a good citizen. His positivist conception, at least, left room for the *beaux arts*:

‘To educate a human being’s power of judgement does not mean to deaden his senses for beauty and art and to turn him into a robot. Let’s foster by all means the sentiment and all spiritual currents which evade statistical measurement but let’s render unto reason the things that belong to reason and let’s furnish him with the guidance he needs. And statistics are such a guidance’ (Krieger 1954: 112).

A work entitled ‘At Uncle Gallup’s’ further illustrates Süskind’s contempt for alien standardisations. In this piece, Süskind recounted the visit of an interviewer for a survey on listening habits and radio programmes at his private apartment – population censuses ‘in the stillness’ (*in der Stille*) (Süskind 1951: 26). The interviewer came with an ‘electronic apparatus’; a control lamp indicated that it was switched on: ‘Such magic reassuring lights were also in the air-raid shelter; I could picture an almost dead world in which they were still functioning and proclaimed order, that is almost solace’ (Süskind 1951/1963: 27). Apart from the ambiguity with which he symbolised light – located between consolation and warmth, and the emptiness of such promise once technology and destruction replaced the world of humans – the uneasiness felt during the interview is noteworthy. This uneasiness arose from the position in which Süskind felt he was displaced and by the interviewer’s urge for precise answers: for the sake of a survey, Süskind ‘manifold’ hearing experiences were supposed to follow a ‘characteristic’ pattern which, at least, should be brought in line with either the BBC, the Voice of America (*Stimme Amerikas*) or Radio Moscow (*Radio Moskau*) (Süskind 1951/1963: 28). Süskind was willing to put up with the rules – ‘how gladly I responded with yes or no’ – ‘but I had to back answer this young chap [...] time and again: whether he means effective

for critical or for slurping listeners only? Whether he means appealing to people who prefer to be spoken to gently or loudly?’ (Süskind 1951/1963: 28). Süskind himself took an unequivocal stand on these juxtapositions: *He* was of critical spirit and strong character, difficult to tame by standardised responses. In his world, ‘scholastic bundles of on the one hand and on the other’ matter deeply, as opposed to the ‘firm yes and no’ (Süskind 1951/1963: 28). But just as the statistician granted the possibility of a world beyond the number, Süskind provided an opening for his suspicion: His counter questions were not meant to destroy the conversation but aimed at the scholastic ‘est discernendum’ (Süskind 1951/1963: 28) [it is to be distinguished] through which he granted himself and the interviewer a glimpse of hope for ‘knowledge’ (*Erkenntnis*). The interviewer’s – and through him the statistician’s – and Süskind’s position seemed to meet in the concern for ‘neat [...] accurate results of their [Gallup and the guys] survey’ (Süskind 1951/1963: 28).

Official statisticians since the early modern censuses showed awareness for the problem of variable answers which they aimed to minimise through the careful training of interviewers. Such training was considered a better solution than the highly error-prone completion of census papers by heads of households themselves. Both concerns – Süskind’s and Gallup’s – of course, shared nothing more than the word itself: Süskind’s concern actually revealed a lustful fear that he could ‘sadden’ (*betrüben*) the interviewer by telling him lies, thus withholding the better share of his individuality to himself: intentionally wrong answers, lies, ‘the opinion in the air’ (*die in der Luft liegende Meinung*) constituted, as well as the mutilation of questionnaires or punched cards, the citizen’s prerogative to evade the interviewer and thus state power more broadly. Gallup’s interviewer, by contrast, was trained to do his job and deliver a completed questionnaire the way he was asked to do.

Süskind’s scepticism towards technology, his fear for simple answers and his appraisal of individual experience resonate with Horkheimer’s and Adorno position (Horkheimer and Adorno 1944/2002). For both, émigrés in Los Angeles at the time, positivist science replaced ‘the concept by the formula, the cause by rules and probability’ (Horkheimer and Adorno 1944/2002: 3). In this form, they thought, the quantitative mentality was morally indefensible, and, further, had lost its critical edge, because it was incapable of even thinking utopia. To the contrary, statistical

thinking (average, law of large numbers, and equivalences) had conquered public life in the form of a powerful ideology governing notions of justice in the same way as that of commodity exchange: by abstract numbers and quantitative equivalences between cases: 'Bourgeois society is ruled by equivalence. It makes dissimilar things comparable by reducing them to abstract quantities. For the Enlightenment, anything which cannot be resolved into numbers, and ultimately into one, is illusion. Modern positivism consigns it to poetry' (Horkheimer and Adorno 1944/2002: 4-5). Further, in an actuarial logic towards life and death, the authors discern the broader relationship between science, nature and human beings:

'Who dies is unimportant [...]. It is the law of large numbers, not the particular case, which recurs in the formula. Nor is the concordance of general and particular concealed any longer within an intellect which always perceives the particular as a case of the general and the general only as the aspect of the particular by which it can be grasped and manipulated' (Horkheimer and Adorno 1944/2002: 66).

The logic of amusement also inherently functioned, among others, according to the law of large numbers, which, again, took possession of every rebellion against the cultural industry, however feeble it be: 'In the age of statistics the masses are too astute to identify with the millionaire on the screen and too obtuse to deviate even minutely from the law of large numbers. Ideology hides itself in probability calculations' (Horkheimer and Adorno 1944/2002: 116).

For Porter, Horkheimer and Adorno 'invoked the quantitative study, and destruction, of culture to exemplify the empty values of capitalism [...]. True culture could never be measured, but an increasingly superficial society conceals ever less from those who cannot know except by counting' (Porter 1995: 85). Their conception of a two-dimensional culture, one dominated by the instrumentalist view of calculative 'culture industry', the other dialectically reserved as 'true' culture, resonates with Adorno's 1957 contribution to *Deutsche Soziologentag*, where he challenged contemporary social research design for merely duplicating an 'atomistic' society complicit to its bureaucratic conception. What later (in 1961) became famous as the *Positivismusstreit* in German sociology developed from the debate about utility and methodological (empirical) rigour on the one hand, and the idealistic defence of 'experience' (against its empirical, to use Adorno's term: 'dressing') and the societal context of scientific research on the other (Wagner 1990: 410f.).

Certainly, a more exegetically thorough reading of Adorno and Horkheimer's stance towards statistical abstractions would need to differentiate between the era of the *Dialectic of Enlightenment* and the time after their return to Germany, at least for Adorno, who, in the 1950s, adopted a more nuanced standpoint towards empirical social research and statistical representation (Adorno 1957/1968).

5.6. Conclusion

This chapter has examined a series of loosely inter-related transformations of German statistical discourse during the 1950s and early 1960s, namely the dissemination and reception of the labour force sample survey through the OEEC Manpower Committee and its reception at the StBA; 'mathematisation' of statistics as an expression of both the advancement of higher mathematical calculus and institutional and professional transformations experienced as mathematisation by contemporaries; and the contestation of public figures against the background of mutual scepticism between official statisticians and German 'strong poets'.

With regards to the labour force sample survey, this chapter reconstructed on a transnational level some of the organisational and personnel networks which were instrumental in the preparation of the German official sample survey to be introduced in 1957. Invented and routinised in the US during the 1930s, expertise for labour force sample surveys disseminated to European countries through ILO and OEEC institutional structures and their personnel in a double attempt to shed light on the quantitative make-up of the active population and to provide internationally comparable figures on a continent struck by the aftermath of the Second World War. The chapter has revealed some of the techniques by which the OEEC Manpower Committee hoped to establish such numerical inventories such as questionnaires and reports, studies and 'fact-finding tours', knowledge exchange among statistical experts on how to classify the population and tabulate results, and so-called Technical Assistant Missions. With regard to the latter, the mission to the US in early 1952 and related meetings among European statisticians under the leadership of French and US experts was highlighted as significant for further proceedings within

the context of the StBA. The efforts under the auspices of the OEEC (and ILO) led to the OEEC Council recommendation relating to labour force sample surveys adopted on 31 October 1952. The preparatory committee for the German Mikrozensus took up this recommendation. It was also shown how the experiences gained during the study mission to the US fed into an important essay by StBA statistician Horstmann. This essay compared the German 1950 occupational census (which classified the population according to the main or gainful occupation) with the US Current Population Survey (based on the labour force concept) with a view to amend the former with reference to the two basic concepts enclosed in the latter: working and looking for work.

It was also shown that the labour force concept engendered not only an important transformation in how human economic activities were observed but also in who was observed. As outlined in Chapter 3.4.1, by 1950 very few countries kept records, for instance, over how the inactive population which did not participate in the economic process was made up (housewives, invalids, pensioners, children etc.). In the German case, self-employed, family workers, family members without a main occupation (children and wives) were systematically under-represented or not even continuously observed. The main source for labour statistical data were the BAVAV administrative records which almost exclusively focused on all those who were employed (*Arbeitnehmer*) on the basis of which they were subjected to compulsory health or *Angestellten* insurance (see Chapter 4.4.1). The labour force concept extended these definitions for the reasons outlined in Chapter 3.4.1: harmonisation of national statistical methods and definitions; macro-economic formalisation of national labour markets; and the discovery during the war of a labour force hitherto not part of the labour market. Now, the survey was to cover the general participation in the economy of the population, differentiated only by age, by whether employed, unpaid family worker or unemployed, and by the duration of employment.

A broader finding to emerge from this chapter is that the OEEC meetings, especially those from May 1951 onwards, provided international recognition for German labour statistics and those professionals who held important positions within the Nazi labour administration until 1945. I showed how German labour administrator Maaßen, speaking on behalf of the BMA intentionally used some of

the reports produced in the name of the OEEC Manpower Committee in order to legitimise the national labour statistical organisation tainted with Nazi totalitarianism. Scharlau, Fürst and Horstmann participated in the May 1951 meeting of statisticians in Paris. Horstmann, Scharlau and Luyken represented the StBA and the BMA respectively at the July 1952 meeting (see Appendix I for their respective position during the Third Reich). Especially Horstmann's central role – he was also rapporteur for the 1952 Technical Assistance Mission to the US (OEEC 1954) – suggests that OEEC recruitment valued technical experience more than possible entanglements with the politics of the Third Reich. In this respect, this chapter provided additional evidence with respect to Bühner's (1997) findings. His study already pointed out that the OEEC constituted a forum within which German officials soon after the defeat of the Nazi regime were able to establish contacts with foreign political representatives, industrials and trade unionists thus gaining technical expertise and recognition necessary for both post-war reconstruction and emancipation from Allied occupation.

With regards to the mathematisation discourse in contemporary German statistics, this chapter argued that 'mathematisation' served as a semantic tool for contemporary statisticians to order knowledge within their discipline in intellectual and institutional terms. It was shown how the opposition between mathematics and non-mathematics, between the formula and the table, between the abstract and the empirical was simply not as clear cut as the rhetoric suggested. The example of the textbook by Nicolas showed how social statisticians attempted to account for the fact that any statistical operation involved mathematics, without, however, the need to adopt mathematics as defined by a new generation of mathematical statisticians. Instead, Nicolas defended the autonomy of his views by introducing the notions of 'transposition' and 'isomorphism'. The former accounted for the fact that statistics had come to measure almost anything, including elements not actually realised in the empirical world – a fact which was often unimaginable for social statisticians primarily concerned with the empirically given. The latter was to show that mathematical calculations in social statistics were irrefutably similar in form and relation to, but were not to be the same as, mathematical statistics proper.

This chapter also shed light on the contemporary mathematical camp in social and official statistics represented by Anderson, Kellerer, and Kallmeyer. Analysing their texts showed that mathematisation for them was indeed a matter of whether or not statisticians possessed knowledge of advanced mathematical calculation. Their reasoning even turned this question into an intellectual force to expand their epistemic authority in the field. The functional change of statistics from a counting to a scientific method proper was well under way. I also argued that it was the mathematical language that allowed the establishment of rules (extent and character of measurement error) by which divergent viewpoints on how to measure things could be mediated. Here, the chapter followed Porter (1991; 1995), who has shown that the language of mathematics makes reasoning clearer in part because it has no way of expressing the messy, implicit reasoning and unutterable judgements that guided the statistical work in the first place. The language of social statisticians, partly at least, did not find a way to silence the noise around their measurements. For all those who did not speak this language, however, ontological and epistemological differences remained. The issue, then, as this chapter showed, was not whether mathematical statistics were abstract and social statistics more empirical. Only neo-Kantians found neo-Kantian language less abstract than mathematical calculus. The point was rather that both offered mutually exclusive languages to approach and measure reality.

These issues were discussed in relation to the institutional realms of the DStG. With reference to the 1961 DStG annual meeting, this chapter sketched some of the concerns contemporary statisticians harboured in terms of how statistical training was to be organised. The analysis demonstrated two key points. First, the opposition between mathematical and non-mathematical statistics played out in terms of different statistical methods and their respective institutional organisation. While mathematical statisticians advocated the establishment of specialist statistical faculties within universities to keep up with a rapidly expanding body of advanced statistical methods, official statisticians concerned with the applied character of the field favoured methodical training embedded in universities and neighbouring academic disciplines such as economics. Second, economics, in particular econometrics, and electronic data processing constituted two fields transversal to the

opposition between mathematical and non-mathematical statistics. Both fields were further expressions of the mathematisation discourse posing equally pressing problems on the self-understanding of professional statisticians.

With regards to the contested credibility of public figures, West German statistical discourse has been shown to be divided over the issue of the extent to which published numerical information should and could be amended with some explanatory notes, error estimates or other forms of meta-data about official figures, whether numerical or textual. The respective rationales were assigned to the different ideal-types of German statisticians presented in Chapter 3.5. Mathematical statisticians were in favour of such publications; official statisticians considered them dangerous to the ideal of objectivity and unnecessary since errors would balance out across a wide range of consumers of official figures according to the rules of error propagation.

Drawing on important publications by Krieger, the chapter demonstrated that it was partly the official statisticians' rather sceptical perception of the German public's stance towards statistics that foreclosed greater confidence in publishing measurement errors. The broader discursive landscape of official statistics and their interpretation highlighted the struggle of contemporary German statisticians to defend statistics and their productions as a civic virtue essential for public order and democratic life. Assuming the role of 'technical rationalists' (Weischer 2004), official statisticians – oblivious of their own role in the recent past – condemned the Nazi and Allied rule based on forms, statistics and questionnaires as responsible for the 'irrational' reactions of German citizens towards censuses and numbers.

The final section of this chapter provided evidence for post-war statistical 'scepticism' in the form of secondary literature on the Allied denazification programme and the rather hostile reaction by Germans. The wide reception of von Salomon's *Der Fragebogen* – itself a literary reponse by a 'strong poet' – was taken as a significant indication for this phenomenon. Following Borgstedt (2006), I argued that 'the questionnaire' – not least because of von Salomon's successful account of the same name – became a symbol of political purge soon after 1945 representing suspicion against Allied authorities and the denazification programme.

As was further shown, both the content and form of von Salomon's book implied a powerful critique of statistical surveys.

The chapter provided further evidence for the *topos* of 'suspicion' of statistical surveys in the form of Süsskind's and Horkheimer and Adorno's publications to underscore the official statisticians' mistrust of the German public's numerical literacy. This chapter analysed the latter's discourse as one of 'strong poets' (Rorty 1989) or 'academic aristocrats' (Bourdieu 1991) whose reasoning was quite at odds with that of statisticians. As I showed, both followed different stances as to how real statistics were. Where statisticians believed they were 'discovering' and measuring a pre-existing reality, 'strong poets' took these discoveries and the language that came with them as 'real' in order to denounce statistical productions altogether. Both Süsskind and Horkheimer and Adorno's discourse took figures and the language of quantification at the level of their own description, but did not believe in the information retrieved and conveyed. Instead, they referred to an implicit 'other': their subjectivity, originality or privacy. As this chapter has argued, such claim for individual authority is as legitimate as a personal expression as it is elusive concerning the statistician's attempt to establish cognitive and political equivalences between such differences for the purpose of a collective social order. With reference to a 'politics of statistics' (Chapter 2), one is led to conclude that both discursive modes deployed different languages and justified their forms of knowledge differently. Whilst 'strong poets' referred to individual authority, accounted for their personal experience and preferred, as in the case of Süsskind, a virtuoso writing style, Krieger preferred facts and acknowledged only aggregate patterns, knowledge of which required evidence and not experience. The fact that German official statistical discourse tended to suppress the publication of errors, and, more generally, obscured any epistemological problems in connection with their statistical activities was not, of course, conducive to mitigating the abhorrence by philosophers.

6. The Files under Debate: Scales, Rationalities and Justifications 1957-1963

6.1. Introduction

Chapter 4 introduced the files as both a physical entity and conventional arrangement of primary importance for placement service and statistical depiction of the labour market. With regard to the former, the file was the central unit by which information, personal and professional, was assembled and stable knowledge produced on the individual's 'course of the profession and of work'. The files and the information contained became an object of discussion with their official re-establishment in 1950.

Chapter 5 was concerned with several elements of the German and transnational labour administrative and statistical discourse more broadly. I showed how the statistical internationalism in the field of population and labour statistics which emerged during the Second World War became a serious competitor to 'classical' labour statistics. This discourse, following the labour force concept, departed from the 'gainful' worker concept hitherto used by most occupational or population censuses. Labour force surveys were crucially designed as representative samples which considered a partial depiction of the population sufficient to infer statements about the rest. Representative sampling was ridden with statistical, technical and political prerequisites, requiring not only a national space made up of homogenised elements (humans and things), but also trust in statistical methods by everyone involved, experts, politicians and the public. The previous chapter alluded to personal and methodical linkages between the spaces of the Technical Assistant Missions undertaken under the OEEC umbrella, and those of the StBA, where, since the early 1950s, the *Mikrozensus* was in preparation. I showed that what was commonly discussed as the 'mathematisation' of statistics obscured a deeper boundary conflict among social, mathematical and official statisticians about methods, education and training, professionalism, and indeed reality.

The present chapter takes up the issues in these chapters: the mathematisation of statistics, the instalment of labour force surveys – in parallel to the BAVAV statistical infrastructure – as these were based on representative sampling within the space of the StBA *Mikrozensus*. The debates on the future of the files and the BAVAV labour statistics derived from them are key themes in what follows. Issues around publication policies regarding erroneous or partial information, or diverging

figures form the background of the first section. With the publication of the first *Mikrozensus* (MZ) on behalf of the Federal Statistical office in 1957, considerable differences in employment figures between MZ and BAVAV employment statistics became apparent. The public – mostly unaware of the statistical production cycle behind the figures – compared both sets of figures without pointing to the reasons that made such comparison difficult, much to the statisticians' dismay. The fiction of a single figure for the German working population further fuelled debates among statistical experts within labour administration, the state ministries, and the StBA, about whether or not the files – generated in 1935 and re-established in 1946 – as the basis of a quarterly statistics on behalf of the BAVAV were to be abolished.

This chapter also shows that legal notions crucial for the statistical counting of the labour force within the BAVAV were in flux in the wake of the late 1950s 'growth economy'. For example, due to organisational restructuring in 1960 – amidst the discussions on the future of the employment files – LAÄ were advised to create the position of a 'chief placement officer' (*Hauptvermittler*) in every AA. The legal notion of the 'employee' (*Beschäftigter*) defined by §24 of the 1954 Employment Protection Act became an object of debate between StBA and labour statisticians in 1962, and the 1957 BAVAV commentary on placement statistics was re-issued that year, too.

What follows builds upon the administrative and statistical picture of the German employment situation presented in Chapter 4. Here I argue that this debate centred upon costs and data accuracy, but also around different forms of measurement and opposing 'statistical gazes' on (un-)employment. The question as to whether or not the BAVAV records were actually needed forged peculiar alliances on the one hand, between the BMA higher-level bureaucratic officials and local labour office practitioners, and, on the other, between employees' and employers' representatives within the BAVAV, and mathematically trained statisticians. BMA administrators were concerned, I shall suggest, with economic management, labour market observation, and the alignment of economic policies and legislation to economic processes for which global statistical data was urgently needed. Local practitioners in labour offices wanted individual, file-based information on their clients as a sound foundation for efficient interviews and counselling. They

advocated a statistical representation of the employment situations that was as local and as territorialized as possible, backed up by representatives of the German municipalities. The federal BAVAV administration, by contrast, not only considered the file inconsistent with ‘human dignity’: vocational training and placement services, against the argument of local practitioners, were also to be undertaken ‘in touch with reality’ (*lebensnah*) and in the course of an actual conversation. Their reasoning was supported by a statistical logic according to which the file was ‘silted up’ (*versandet*), hence inaccurate, in the first place. BAVAV administrators resorted to statistical representativeness to argue against the BMA that labour market reporting was entirely possible on the basis of a sample of the files only (a so-called ‘G-file’).

The actors involved, depending on their political and geographical viewpoint upon (un-)employment, argued either in favour of a representative sample or for total capture. Whereas the former functions according to averages, probability theory and representativeness to depict the state of (un-)employment in de-territorialised (hence global) numbers, the latter assumes a model of society to be described ‘without gaps’ (*lückenlos*) by territorialized statistics. Accordingly, two different ways of perception of (un-)employment and production were at stake. Representative sampling considered partial information on a few sufficient to infer conclusions – supported by probability theory and mathematical calculus – about the rest. Administrative data, by contrast, relied on ‘authentic contact’ (*echte Kontakt*) (Herbst 1964a: 49) during interviews in local labour offices. Here, local administrators’ often intimate knowledge about their local labour office district made it difficult for them to buy into the homogenous relation between people and their economic activities assumed by statistical representativeness for a wider social space. Accordingly, two ideal-type users (and, concomitantly, producers) of administrative data were opposing each other: the chief placement officer (*Hauptvermittler*) versus the statistician. What follows thus contextualises the BAVAV employment statistics within more general socio-political rationalities – all concerned with the protection of salaried workers in some way or another – and their respective ‘spaces of measurement’. Following the ‘politics of statistics’ (see Chapter 2.2), I examine the fabric of the BAVAV employment statistics and the information they sought (the ‘occupational

personality’) in relation to contemporary political constructions (*Daseinsvorsorge*, employment protection and economic freedom within West German economic democracy more broadly). The nexus between economic political order and the legitimate statistical knowledge thus excavated serves to analyse the debates on the abolition of the BAVAV employment statistics in their political context and in relation to different scales: the national, regional (*Länder*), and the local (municipal or local labour office district). From 1961, BMA labour statisticians (Galland in particular) deferred responsibility for any decision in the field of a representative sample mainly due to his ignorance of mathematical statistical knowledge. Statistical accuracy outweighed administrative necessities. In conclusion, I account for the ways in which credibility was established for ‘G’ as the initial letter of family surnames used to represent the entire ‘German’ working population: mathematical formulae as ‘objective’ rules, comparison with other enumerations and visualising techniques (the cartogram) were believed to establish ‘G’ as the appropriate denominator for the sample.

The empirical material for this chapter is drawn from the Federal Archive Koblenz and the SEAD-BA in Mannheim. A selection of published specialist and grey literature complements the archival analysis. In this context, a debate in the BAVAV specialist journal *Arbeit, Beruf und Arbeitslosenhilfe: Das Arbeitsamt* in summer 1964 provides particularly rich source material. After the future of the files had already been decided on in favour of a G-file, members of the BAVAV administrative and executive board (Henkelmann 1964; Herbst 1964a; b) rationalised their decisions by way of retrospective articles. In subsequent discussion set up by the editors due to the ‘remarkable response’ (*beachtliche Echo*) and the ‘lively discussions’ (*lebhaftige Diskussion*) in the aftermath of Herbst and Henkelmann’s contributions, senior BAVAV civil servants as representatives of local practitioners gave their views. Dr Erwin Schönefelder was particularly knowledgeable in this debate. Other local practitioners followed his example (Hausin 1964; Kruse 1964; Rohleder 1964; Degen 1964a; Degen 1964b). The arguments and rationalities were presented in a condensed way, showing manifold mutual references thus opening up a complex, albeit analytically manageable ‘space of dispute’ among labour

administrators and experts.²⁰⁶

6.2. Which Figures to Trust? StBA Mikrozensus vs. BAVAV Labour Statistics

As noted (Chapter 4.3), in adhering to the suggestions by the executive board committee ‘employment file’, the BAVAV administrative board voted for a discontinuation of the various data exchanges between AÄ and other public agencies hitherto essential to the maintenance of the files and thus to the labour statistics. The veto was subsequently put into practice by circular decree to all LAÄ. Further decrees issued in the context of work simplification aimed to sort out unused files, to re-organise the entire filing system, and to adjust the remaining files in each AÄ: each demanded practical efforts which were put into practice unevenly across different AÄ (see Chapter 4.3). The board decision, as well as the subsequent practical steps, was taken irrespective of the fact that a final decision by the BAVAV executive board was still pending. Moreover, the BAVAV management attracted the resentment of BMA administrators who intervened in the name of Minister Storch in March 1956. The future of the files at that time was pending, following antagonistic views as to their purpose.

The statistical effects of the decisions of the BAVAV administrative board in 1954 only became more serious to the administrators at the moment a divergence between housing statistics and the first *Mikrozensus* became apparent and, subsequently, was noticed by users of these statistics in the public. With the first publication of the housing statistics in 1956, the StBA realised that official figures overstated the resident population and needed to be adjusted by more than 615 000. What, in 1950, was believed to be an accurate census of the German population, needed to be further adjusted with the first *Mikrozensus* in October 1957. The population census and the count of the ‘comprehensive file’ (*Totalkartei*), both in

²⁰⁶ Most of the arguments presented by local practitioners were first formulated in a report drafted by the BAVAV executive board between June and October 1953. This report was commissioned by the administrative board committee for general questions (*Verwaltungsratsausschuß für Allgemeine Fragen*) during its meeting on 12 June 1953 and was meant to outline which ‘positive effects’ there were for the BAVAV if the employment files were continued. This report was discussed during an October meeting of the committee: see BAVAV, Ic2, Sitzung des Verwaltungsratsausschusses für allgemeine Fragen am 26.10.1953, in: SEAD-BA 6.7.1/11. This report is central to the analysis and conclusions advanced in the present chapter.

September 1950, came to approximately matching results. By late 1957, the two differed by about 1 million. The first *Mikrozensus* in October 1957 calculated a total of 17 960 000 gainfully employed persons (*abhängige Erwerbstätige*) on the basis of interviews with a sample of randomly selected households, the BAVAV numbers of 30 September 1957 gave a figure of 18 970 000 employees (*beschäftigte Arbeitnehmer*).²⁰⁷ This variation caused some anxiety for different institutions involved in capturing the employment situation for the young federal republic's economy (see Chapter 5.4 for the broader discussion on anxieties and the public figure).

It was by no means clear which procedure – the BAVAV employment statistics or the StBA *Mikrozensus* – would deliver the more accurate results. Labour administrators within the BAVAV, and, initially, also BMA statisticians, defended the employment statistics against the newly introduced *Mikrozensus* whose data-gathering procedure was little trusted at the time. The BAVAV, in March 1959 amended the publication of figures for employed persons (*Beschäftigtenzahlen*) with a footnote suspecting an ‘excessive increase of the employment files’ (*Überhöhung der Beschäftigtenkarteien*).²⁰⁸ In May 1959, the BAVAV public relations department in a press release entitled ‘Are *Mikrozensus* and Employment Statistics Comparable?’ (*Sind Mikrozensus und Beschäftigtenstatistik vergleichbar?*) raised awareness of conceptual discrepancy between the categories of people captured.²⁰⁹ In November 1959, this issue was debated at the BAVAV board meeting, where it was deplored that despite an information campaign on the incomparability of official employment figures: ‘parts of the press compared figures of both censuses without pointing towards the reasons making the comparison difficult’.²¹⁰ At the same time, BAVAV board members doubted the validity of the random sample method on the basis of representativeness: ‘Possible faults’ (*Fehlermöglichkeiten*)²¹¹ were to be expected, so the ‘truthlikeness’ (*Wirklichkeitsnähe*) of results was made anything but plausible to BMA and BAVAV labour administrators (Galland 1961: 185-6).

²⁰⁷ See Institut für Arbeitsmarkt und Berufsforschung (IAB), Bereich Statistik, Analyse der G-Kartei, August 1969, and literature mentioned therein, in: B149/22046

²⁰⁸ See Amtliche Nachrichten der Bundesanstalt (ANBA), Jahresheft 1959.

²⁰⁹ See BAVAV Presseinformation (IBA) Nr. 54, 27 May 1959.

²¹⁰ See Sitzung des Vorstandes am 16. Und 19. November 1959. Betr.: Unterschiede zwischen den Ergebnissen der Beschäftigtenstatistik der Bundesanstalt und des Mikrozensus, in: BAK B149/12324.

²¹¹ Ibid.

Sampling errors could occur during case selection, in the projection of the sample, during punch-card production due to human fatigue and distraction, and due to great variability in answering the interviewer: all these factors were well recognised by StBA statisticians (Koller 1958). On the other hand, the possibility of inflated file inventories (*Karteibestände*) in the AÄ was not ruled out. After all, since 1951, the files had been maintained unevenly across the different local offices due to ‘uncertainty regarding the continued existence of the files’.²¹² For BMA department I, in a statement from December 1959 on the continuation of the employment files, the *Mikrozensus* ‘as far as its basic population is concerned hitherto has not been affirmed [...] The *Mikrozensus* with regard to its purpose and to the technical and methodical particularities (e.g. that statements by respondents can be subjectively influenced) is not suitable to ascertain such information’.²¹³

During the sixth meeting of the Statistical Advisory Council (StBR) in May 1959 in Wiesbaden, the StBA in the person of president Fürst and representatives of department VIII (Population, Occupational and Housing Censuses),²¹⁴ similar reservations were raised in the context of a general discussion on ‘statistics of gainful occupation and employment’. Articles of Fürst (1959) and Sperling and Birkner (1959)²¹⁵ in *Wirtschaft und Statistik* served as a basis to this meeting. Their elaborations, essentially, aimed at encouraging trust in the *Mikrozensus* by way of comparing its results with other statistics and underlined the greater conceptual uniformity that was to be gained from the labour force concept. Overall, the discussion aimed to conclude on a ‘consistent notion of employment’ (*einheitlicher Begriff der Erwerbstätigkeit*).²¹⁶ For the StBA statisticians the labour force concept served best to capture ‘the number of working people and the labour they carry out’

²¹² See Weiterführung der Beschäftigtenkartei der BAVAV, Ergebnisprotokoll einer Sitzung mit Mitgliedern des Vorstandes und des Verwaltungsrates der BAVAV Kommission am 20.7.61 im BMA, 10. August 1961, in: BAK B149/12324.

²¹³ BMA *Oberregierungsrat* Schmidt here refers to ‘Angaben in der erforderlichen fachlichen Gliederung und Periodizität’, for which he believed the BAVAV employment file still to be indispensable. See BMA, Abteilung I, Fortführung der Beschäftigtenkartei, 31 December 1959, in: BAK B149/12324.

²¹⁴ Present were S. Koller, Schubnell, Schwarz, Sperling, Herberger, and Zander (see Appendix). The BMA was represented by Theodor Galland and Richard Luyken, see Protokoll über die 6. Tagung des Statistischen Beirats am 5. und 6. Mai in Wiesbaden, in: BAK B128/3756.

²¹⁵ The latter article was discussed by Theodor Galland prior to its publication with Siegfried Koller who then assumed authorship for it. For unclear reasons, Sperling and Birkner appeared as authors on the published version. See BMA, Ib3 (Galland) to StBA, betr. Mikrozensus und Beschäftigtenkartei, July 1959, in: BAK B149/863.

²¹⁶ Protokoll über die 6. Tagung des Statistischen Beirats am 5. und 6. Mai in Wiesbaden, in: BAK B128/3756.

(Fürst 1959: 115). Comparability and ‘greater conceptual clarity’ (*größere begriffliche Klarheit*) spoke in favour of the new concept. By contrast, ‘special statistics’ (*Sonderstatistiken*), such as the BAVAV employment statistics, were not primarily concerned to deliver a ‘synopsis of employment’ (*Gesamtschau über die Erwerbstätigen*) (Sperling and Birkner 1959: 469), and were, further, meshed up with ‘varying legal affairs’ (*wechselnden rechtlichen Tatbeständen*) (Fürst 1959: 115). From that macro-economic point of view followed by the StBA statisticians, both regarded a serious deficiency.

With regard to the ‘tracing system’ (*Ermittlungssystemen*), what labour administrators considered a serious fault of random household interviews – the subjective biases of the interview situation – was seen as an advantage for the *Mikrozensus*. ‘Specially trained interviewers’ (Fürst 1959: 115) were seeking information in a household sample, thus avoiding the procedure of how information was arrived at within occupational censuses, which was considered ‘uncontrollable’²¹⁷ especially with regard to statements on the main source of income. The *Mikrozensus* could capture ‘the kind of work and the working hours dedicated to particular activities during a specified period of time’ (Fürst 1959: 115). Concomitantly, the independence thus gained from any administrative practice was considered favourable for the validity of the *Mikrozensus* data. On Galland’s remark that ‘the results of statistics attended with an administrative act were more reliable in some respect’, Fürst responded that ‘in case of huge files of this type numbers of cases are expected from experience to be inflated since outflows are captured less accurately than entries’.²¹⁸ According to Sperling and Birkner (1959: 474), to cover approximately twenty million notifications on recruitment and redundancies per year not only produced delay in the statistical picture of employment, but also gave a good example of how enormous was the fluctuation on the labour market. This was considered hard to keep track of since every change of place of residence or job, and dropouts from the labour force could potentially go undetected.

²¹⁷ Fürst in Protokoll über die 6. Tagung des Statistischen Beirats am 5. und 6. Mai 1959 in Wiesbaden, in: BAK B128/3756. Further, it was considered problematic to assign *ex officio* ‘unpaid family workers in agriculture in case household lists were filled in inadequately’ (*mithelfende Familienangehörige in der Landwirtschaft bei unzureichenden Eintragungen in die Haushaltslisten*).

²¹⁸ Protokoll über die 6. Tagung des Statistischen Beirats am 5. und 6. Mai 1959 in Wiesbaden, in: BAK B128/3756.

Partly as a consequence of these discussions and the greater attention that subsequently was paid to issues of definition and coding, legal notions crucial for the statistical counting of the labour force were re-defined as well. For example, the legal notion of the ‘employee’ (*Beschäftigter*) defined by §24 of the 1954 Employment Protection Act became an object of debate within the StBR in July 1962, so that the BMA administrator Scharlau demanded clarification from the BAVAV. The BAVAV’s response made clear that as long as the debates on the future of the employment files were ongoing and no clear enforcement of § 53 (*Anzeigenpflicht bei Einstellungen und Entlassungen*) was being issued on behalf of the BMA, ‘I consider releasing any file guidelines summarising the respective regulations inappropriate’.²¹⁹

Within the BAVAV, analogous attempts can be noted to align the categories in use for administrative work with federal labour law. Especially issues of how to categorise an unemployed person show that major attempts were started in the late 1950s to homogenise the terminology in use towards a national standard. This language was also supposed to be amenable to statistical counting. For example, the 1957 ‘Manual for Placement Statistics’ (*Anleitung für die Statistik der Arbeitsvermittlung*) had been considered obsolete in many points, and, by 1962 was replaced by the ‘Commentary on Placement Statistics’ (*Erläuterungen zur Statistik der Arbeitsvermittlung*) (BAVAV 1963). These annotations ‘put a particular emphasis on the terminology’,²²⁰ and replaced the notion of ‘residual unemployed’ (*übrige Arbeitslose*) by ‘non-unemployed job seekers’ (*nicht-arbeitslose Arbeitssuchende*). This defined the notion of unemployed more clearly in connection with § 75 AVAVG²²¹ which hence was meant to be ‘more easily measurable’ (*statistisch leichter faßbar*).²²²

In 1960, amidst the discussions on the future of the employment files, the BAVAV department I advised LAÄ presidents to re-organise AÄ placement sections

²¹⁹ BAVAV, IVb3, an den Bundesminister für Arbeit und Sozialordnung, Definition des Begriffs ‘Beschäftigter’ in der Statistik, Vorgang: Ihr Schreiben vom 16.6.62, 13. July 1962, in: BAK B149/12324.

²²⁰ in: BAK B119/12, no date, no title.

²²¹ §75 AVAVG (*Begriff der Arbeitslosigkeit*), see Krebs (1957: 244-251) for the extensive commentary.

²²² See BAK B119/12. The ‘Guidelines for Employment Placement’ (*Richtlinien für die Arbeitsvermittlung*) constitute another example in this context. Since 1959, these guidelines – issued for the first time in 1932 and re-worked by the predecessor of the BAVAV and the LAÄ in 1950 – had been re-edited to be approved by the BAVAV executive board in September 1962. The new guidelines reprinted Syrup’s ‘Ten guiding principles for the service in the labour office, especially for dealing with the unemployed’, first issued in December 1930. See Chapter 3 for some information on Syrup. The 1962 guidelines are contained in B119/3138.

in their districts. For the purpose of an ‘efficient organisation and implementation of placement services’, BAVAV president Sabel²²³ in an express letter to the LAÄ from April 1960, demanded they ‘instantaneously streamline once again the placement sections in all labour offices in order to adapt to the altered state of business’. This same letter, by way of making the right of placement offices to exist dependent upon ‘at least 100 placements per month’ over a not further specified period of time, introduced a new ‘professional’ (*Fachkraft*) for these purposes: the chief placement officer (*Hauptvermittler*). The job description also outlined herein indeed mentioned observation of the labour market section, which the agency was responsible for, but, other than that, mainly focused on the evaluation of the notifications for recruitment and redundancies according to § 53 AVAVG, on cultivation of contacts with important organisations, authorities and establishments, and on counselling sessions for job seekers. The statistical work was transferred to ‘professional file workers’, who were supposed to maintain and post the employment and placement files, and, further, were tasked to ‘statistically count, as well as order and file job order cards, placement files and miscellaneous official correspondence’.²²⁴ Thus, by way of distributing staff to organisational requirements, the placement sections were strengthened in the person of chief placement officers whose existence, simultaneously, was put into question by the development of labour statistics – produced in his domain – into a representative sample (G-file).

6.3. Labour Statistics Contested and Situations of Conflict

Chapter 2.3 introduced the French thought collective and their emphasis on the relation between statistical forms and political orders, or polities. Let me return to this now with reference to discussions on the future of the administrative files as a basis for the BAVAV labour statistics and to how different conceptions about the political order considered different statistical systems legitimate. With reference to

²²³ Anton Sabel (1903-1983), 1949-1957 MP (CDU, Head of the Parliamentary Committee for Labour), 1957-1968 BAVAV President.

²²⁴ All quotes from: BAVAV, Ia3, der Präsident, an die Landesarbeitsämter, Organisation und Arbeitsvermittlung, 28. April 1960, in: BAK B119/3138.

geographical scales as an analytical concept (see Introduction), I will show how statistical gazes played out through different scales and were, in turn, partly constituted through official statistics as an inventory of ordering and seeing.

6.3.1. Civic-Economic Logic by BAVAV Higher-Rank Officials: Human Dignity, Economic Freedom, and the Radically Economic State

The question of whether or not the employment files were still legitimate during times of low unemployment and a ‘free’ labour market was one of the key issues in this debate. Employers’ and employees’ representative within the self-governed BAVAV raised the question of whether the file, statistically inaccurate in the first place, and inscribed in the logic of economic dirigisme and employment planning in preparation of the war implemented by the 1935 legislation on the labour identification card, was compatible with ‘the realities of a free labour market’ (Henkelmann 1964: 51). Henkelmann’s verdict in particular was unambiguous with reference to constitutional norms: registration measures in connection with the files are incompatible with human dignity: ‘Every employees’ representative has the duty to oppose to such regulations, because they disentitle the employees of their basic rights thus turning labour offices again into something they were during Nazi times, but must nevermore become, namely ‘strongholds against employees’ (Henkelmann 1964: 51). In stricter legal terms, the employees’ representative argued that the registration measures (the ‘file-based perfectionism’, *karteimäßige Perfektionismus*), as he put it (Henkelmann 1964: 51) were stripped of their legal basis with the introduction of the *Grundgesetz* in 1949. Had the employment files been kept, the BAVAV would have found itself ‘slightly beyond legality’ (Henkelmann 1964: 50).

With regard to the actual placement procedure, K.W. Herbst leapt to Henkemann’s defence over the freedom to choose a career: ‘Individual and personal’ counselling sessions, would allow a better placement service than one that is based on the employment file, following the motto ‘I already know everything about you’ (Herbst 1964a: 49). Herbst was convinced that for individual and effective counselling, ‘the human being has to be central, with her manifold aptitudes, his

professional career, but also with his occupational expectations, his personal aspects, and the social situation he finds himself in' (Herbst 1964a: 49). The placement order as embedded in Art. 12 GG (*Berufsfreiheit*)²²⁵ as well as in Art. 11 GG (*Freizügigkeit*)²²⁶ was, for Herbst, too multifaceted and complex to be pinned down on a file in the form of 'facts'.

Files were despised as 'little tools of knowledge' (Becker and Clark 2001) in the service of Nazi dirigisme and planning. In the context of the post-war German social market economy under the banner of competitiveness and liberty, 'application documents and CVs' (Herbst 1964a: 49) were considered the more appropriate means. The individual 'course of work and profession' was still of major concern for the placement procedure. The means to advance to the information linked to it, however, were to change in that the professional career so far was to be better explored during a conversation. Actual conversations during placement counselling were considered much more appropriate to 'open up' (*aufschliessen*) the client than listing information, taken from employers' notifications by 'file workers' (*Karteibearbeiter*) (Herbst 1964a: 49).

Herbst and Henkelmann's rationale – in a peculiar alliance between employers and trade unions – followed the founding myth of the post-war German state as a 'radically economic state' (Foucault 2008). First, both distrusted not so much the statistics but the registration measures that came with it, as something that has always been intrinsically related to the state administration. This administration was rooted in Nazism. From this follows the juxtaposition between Nazi economic planning and dirigisme with the corresponding registration measures on the one hand, and the free labour market, based on economic freedom and corresponding constitutional norms (freedom of profession and freedom of movement) on the other. What was identified with Nazism – administration and statistics – cannot be trusted any more, so reasoned Henkelmann and Herbst, and would need to be re-established on the basis of the market. Under the conditions of the market, rather than files and registration actual conversation (counselling) and the disclosure of individual information under the condition of personal consent, constituted the channels

²²⁵ [Occupational Freedom; Prohibition of Forced Labour] (1) All Germans shall have the right freely to choose their occupation or profession, their place of work, and their place of training. The practice of an occupation or profession may be regulated by or pursuant to a law.

²²⁶ [Freedom of Movement] (1) All Germans shall have the right to move freely throughout the federal territory.

through which the information was to flow between individual and placement officers in labour office. Statistics were considered necessary within this conception, but, in drawing a clear line between the state and the private economy, were to be subordinated to the rules of the social market economy. Thus, the combination of two fundamental normative pillars of post-war German economic democratic order – individual freedom and the rules of the social market economy – served as the bases of Henkelmann and Herbst’s plea against ‘file-based perfectionism’.

Their reasoning was in line with the broader framework within which both statistical inquiry and labour administration were placed during the early years of the West-German post-war era. As reported in Chapter 3.5.1, the StBA was hedged around with restrictions laid down in a 1953 federal law regulating federal statistical activity. The ‘legalism’ typical of the German post-war official statistical inquiry required that all statistical inquiries conducted by the StBA should have an explicit legal justification. Obviously, the legislative body did not apply to the labour administration per se, but it serves to indicate the broader discursive landscape against which Herbst and Henkelmann derived their arguments. Technocratic initiative was to be contained within the framework of the *Rechtsstaat*, which, in turn, drew much of its legitimacy from both the respect of individual freedom and, above all, the adherence to a ‘social market economy’. Any efforts to administer labour in the post-war era were crucially linked to the notion of free movement of labour (*Freizügigkeit*). The example of the OEEC shows that endeavours towards a more coherent employment service organisation during the early 1950s must be placed in the context of a liberalisation of national labour markets and the best possible utilisation of manpower resources in member countries.²²⁷

²²⁷ With regard to both ‘standards of employment service organisation (employment market information)’ and ‘liberalisation of the labour market’ the OEEC proved to be an important sponsor of normative guidelines. See with regard to the former the recommendation by the Council C(58)197 from 19 September 1958, based on a questionnaire (MO(59)18) and subsequent report by the Manpower Committee, and the responses by the BMA in B149/8085. Further, these OEEC norms explicitly agreed upon an inter-state manpower adjustment advocating for the ‘elimination of obstacles to the freedom of movement’. See also MO(57)4 in B119/3138 from 16 January 1957.

6.3.2. The Logic of *Daseinsvorsorge* by Local Labour Office Administrators: Administrative Data as an Instrument for Employment Placement under Conditions of Trust and Control

Practitioners in local labour offices considered the files first and foremost a necessary pre-requisite for successful placement and the administrative activities that came with it. The statistics derived from the actual administration of the job seekers were considered secondary to the labour administration's primordial task: 'service for the human being and the economy' (*Dienst am Menschen und an der Wirtschaft*).²²⁸ In this context, at the level of local labour offices, the decline of unemployment, the extension of the labour force (*Arbeitskräftepotential*), and the transition to full employment were all recognised as contemporary factors of change, without, which 'the placement service would have served its time' (*Arbeitsvermittlung ausgedient hat*) (Degen 1964a: 121).²²⁹ To the contrary, local practitioners, defiant in the face of several attempts to re-structure the functional and organisational structure of the placement services by the BAVAV main office since the early 1950s, defended their work in the light of 'technological progress' and 'automation' which would, in their view, bring to the fore the 'mass placement [...] of unskilled workers (*Massenvermittlung [...] ungelernter Arbeiter*) (Degen 1964a: 122) now set free in an economic system perceived as ever more rapid and rationalised.

For the 'practitioners of placement' (*Praktiker der Arbeitsvermittlung*) the 'activation of the last reserve' (*Aktivierung der letzten Reserve*, Degen 1964a: 122) required individual file-based information as a sound foundation for efficient vocational training, placement counselling and encouragement to work. For local practitioners, the files were part and parcel of successful counselling and placement interviews. Schönefelder, familiar with the file system since its establishment before the Second World War, and a member of the 1954 BAVAV commission 'Employment Files', spoke on behalf of local practitioners. Schönefelder – who also acted as the executive head of the association of BAVAV civil servants (*Verband der*

²²⁸ BAVAV, der Präsident, An alle Dienststellen der Bundesanstalt. Richtlinien für die Arbeitsvermittlung, 3. September 1962, in: BAK B119/3138.

²²⁹ Alois Degen was president of the LAA North-Rhine Westphalia.

Beamten der BAVAV) within the German Civil Service Association (*Deutsche Beamtenbund*) between 1958 and 1966 – cited the professional ethos of civil servants (*Bundesbeamte*) as responsible, independent-minded federal employees as a legitimate reason to raise his voice against the BAVAV executives.²³⁰ In opposition to Henkelmann and Herbst's resort to human dignity and individual freedom as a civic-economic resource against 'file-based perfectionism', Schönefelder granted the individual files the status of a central tool to keep track of 'characteristic facts' (*Tatbestandsmerkmale*): 'Counselling is the more relevant the better it can be prepared or conducted on the basis of flawless documents, which are up-to-date and swiftly reveal the essential facts'. The files, in his eyes helped reduce 'very complex circumstances' (Schönefelder 1964: 146) to the basic facts, namely to occupational identity, thus enabling the focus to be laid upon 'the confident talk about the job seeker's urgent concern' (Schönefelder 1964: 145).

The file card was considered a tool of trust around which placement officer and job seeker were brought together: Against the postulation of the authentic contact alone, the matter of fact information preserved on the files guaranteed a double check against both potential 'prejudices' (*Voreingenommenheiten*) of the placement officer and subjective, potentially distorted or manipulative information given by the job seeker. With regard to the former, his or her trustworthiness depended on precise knowledge, relevant to the case of the individual employment situation: 'Good preparation by means of memory aids serves as the most important pre-condition for a thorough, just, properly social and human counselling' (Schönefelder 1964: 145). The file put any placement officer in the position to 'be in the picture about everything required as quickly as possible, and hence to promptly advise him [the job seeker]; thus he comes to trust the placement officer and his professional expertise'. (Schönefelder 1964: 146). As Kruse also observed, to have the information readily available was particularly useful with regard to 'first counselling' (*Erstberatung*), in which case the counselling session could focus

²³⁰ See his reference to the *Bundesbeamtengesetz* (BBG): 'The federal civil servant simply has the duty to fully dedicate himself to his job, to hold office impartially, justly, disinterestedly, and to the best of his knowledge. Further, his administration has to take the general good into consideration (§§52, 54 BBG), and he is encouraged to express the point of view thus formed.' ('Der Bundesbeamte hat nun einmal die Pflicht, sich mit voller Hingabe seinem Beruf zu widmen, sein Amt unparteiisch, gerecht, uneigennützig, nach bestem Wissen zu erfüllen, bei seiner Amtsführung und das Wohl der Allgemeinheit Bedacht zu nehmen (§§52, 54 BBG) und seine Auffassung, die er sich nach diesen Gesichtspunkten gebildet hat, entsprechend zu vertreten' (Schönefelder 1964: 145).

exclusively on previous employment and the actual new placement sought (Kruse 1964: 178). With regard to the person seeking advice and job, the filed information did not lie: Any ‘unpleasant work experiences’ (*unbliebende Berufserfahrungen*) (Schönefelder 1964: 146) the job seeker wished to keep secret or even wipe off his personal record would be kept. This required that the files were always kept up to date by the respective filing administrators as instructed by the chief placement officer, a fact that was hindered partly by the administrative board’s decision of August 1954, but, which in principal, was re-affirmed by the adjustment of remaining files between November 1954 and June 1955. Karl-Georg Kruse, *Verwaltungsoberspektor* at the AA Krefeld, was eloquent in relating the significance of the information used to jurisprudential procedures. Documents delivered by job seekers themselves could hardly ever be considered ‘conclusive’ (*beweiskräftig*). Oral statements ‘are to be used with some reservation, even if the placement officer got the impression that the consulter did not suppress unfavourable things’ (Kruse 1964: 177-8). Such precaution was valid, Kruse continued, in the case of ex-convicts or of employees, who changed job three times or more within one year as these cases were usually turned down by employers. The utilisation of application documents suggested by the civic logic of the BAVAV management was not even worthy of discussion for local practitioners. The information was not trustworthy. The processing was too time-consuming and the necessary ‘proof’ of previous convictions was not given.

Essentially, for local practitioners, the individual files – given that they were all up to date and developed uniformly across branches – were considered the necessary pre-condition of a personal, mutually comprehensible and ‘pertinent’ counselling session. Human dignity would not be compromised. On the contrary, it was only ever respected in individual, confidential counselling sessions, whose confidentiality was produced precisely by resorting to the discrete information contained in the files. The ‘occupational identity’ was not considered contradictory to subjective aspirations and professional careers. Since everyone, ideally, was treated uniformly within a standardised file system, and subjective distortions on either side were supposed to be reduced to a minimum by externalising the information on that piece of paper, there was also an aspect of social equality at stake

as a corrective to the unpredictability of the labour market. As Degen pointed out: 'Job search and counselling sessions reasonably need to be put down in writing. Without written records employment services would again end up in employment agencies (*Arbeitsnachweis*) of unpleasant remembrance with the stock market-like exclamation of vacancies notified randomly' (Degen 1964: 122).

As for the BAVAV management, 'the responsibility of the state for the working human being' (Degen 1964: 121-122) featured as the central rationality in the discourse of local practitioners. Where the BAVAV national administrators' gaze followed the free development of the individual as a civic-economic resource to be sufficiently reflected in a random selection of representative files, the local practitioners believed they did justice to the working human being by referring to 'public services' (*Daseinsvorsorge*) for which uniform, written, local and detailed knowledge was paramount. Schönefelder refuted Henkelmann's argument in favour of 'human dignity' most eloquently. Recourse to human dignity, for Schönefelder, 'idealistically' (*ideell*) distracted attention from the real cause, 'well-ordered social existence in our highly developed state'. It was not about a 'defamatory registration, devaluing the human-being to a mere object, to a redundant factor, but, to the contrary, it is about a proof for every employee in the sense of a recognition or affirmation of his individual occupational identity for the purpose of *Daseinsvorsorge* in his interest and for the general good' (Schönefelder 1964: 146). Statistical registration was considered a proof of the individual's (the individual's 'occupational personality') integration in a wider generality guaranteed by the state.

Daseinsvorsorge literally translates as the 'provision for existence', and basically stands for German public services. As an administrative concept it was essentially developed by Ernst Forsthoff in a 1938 publication entitled 'Administration as Provider of Services' (Forsthoff 1938). Developed in the inter-war period, in a world devastated by war and collapsing social and political institutions, *Daseinsvorsorge* described the task of the administration to assume provision of the basic functions of political order, in things such as social housing, town planning, water services, and protection from unemployment. It described a legal administrative rationality on the level of municipalities and, as such, was locally embedded and, as Forsthoff understood it, opposed to constitutional norms at

state level. Following Forsthoff's pre-war definition, *Daseinsvorsorge* described 'those arrangements put in place to satisfy wants of appropriation' (Forsthoff 1938: 26). Forsthoff's post-1945 basic definition contained in his widely read textbook²³¹ did not differ much: *Daseinsvorsorge* 'encompasses all services for state citizens by the administration' (Forsthoff 1950/1973: 370). Following Kersten (2005) and Meinel (2007), however, the concept had undergone major transitions within Forsthoff's construct:

Historically, Forsthoff used the term to describe a gradual transformation from an 'enforcement administration' (*Eingriffsverwaltung*) i.e., an administration understood as 'sovereign action with the use of superior coercive power' (Forsthoff 1950/1973: 371) into a 'service administration' (*leistende Verwaltung*) in Germany and other European countries since the nineteenth century (Forsthoff 1950/1973: 368f), essentially accompanied by the transition from the liberal *Ordnungsstaat* (regulatory state) to the social state. *Daseinsvorsorge*, as Forsthoff (1950/1973: 370) remarked, finds its complementary counter-notion in the maintenance of public security and order as the essential task of the state. Thus, *Daseinsvorsorge* also served as a central pillar for state power. If the communities fail to provide, the consequences would reach far beyond their realm and would lead to a crisis of legitimacy of the state altogether. Similarly, Kersten (2005) interprets Forsthoff's *Daseinsvorsorge* as a basic element of stable political order in post-traditional societies in which spatial densification of social life, urbanisation, and technical progress together with the structural transformation of political power were rampant. Then, for Forsthoff, the administration was expected to be 'the last resort of order against chaos' (Meinel 2007: 798). Accordingly, since Forsthoff 'was convinced that within the modern state all core political questions are questions of administration' (Meinel 2007: 787), he developed the notion of *Daseinsvorsorge* in strict opposition to constitutional norms. Kersten further excavated the strong correlation between personal provision and social control contained in the notion. *Daseinsvorsorge* denotes not only a primary function and duty of public administration – as

²³¹ Forsthoff's 1950 Textbook of Administrative Law, written while he was banned from academic work and teaching, gained 'considerable importance in the early years of the Federal Republic of Germany', as Meinel (2007: 789) concedes with reference to a number of law studies.

Schönefelder treats it – but also the power of the state to intervene into the lives of the dependant, modern man (Kersten 2005: 553 especially).

Emanating from Forsthoff's work, *Daseinsvorsorge* entered the everyday parlance of administrators and legal scholars. In their view, it aimed at the 'safeguarding and provision of fundamental, vital needs' (Püttner 2001: 999). Grunow and Olk (2001: 834) mention the term in the context of 'social infrastructure', which encompasses 'the entirety of state (public) institutions, indispensable for a sufficient economic development of space and for the *Daseinsvorsorge* of an area/department'. With regard to the post-1945 German situation and the *Grundgesetz*, Forsthoff (1950/1973: 568) underlines the idea that *Daseinsvorsorge* falls under the responsibility of the municipality (*Gemeinde*) 'subject to local requirements' (*nach Maßgabe der örtlichen Bedürfnisse*). The *Grundgesetz* in art. 28, para. 2²³² created a constitutional frame for municipal legislation (*Kommunalgesetzgebung*), granting to municipalities the status of a 'legal personality proper' (*eigene Rechtspersönlichkeit*), thus emphasising 'an autonomy awarded to municipalities and associations of municipalities towards the state. The words 'on their own responsibility' [*in eigener Verantwortung*, see Art 28 GG, para. 2, JM] foreclose the inclusion of municipalities and municipalities associations into the hierarchical structure of the state' (Forsthoff 1950/1973: 529). This is, according to Forsthoff, not to be misunderstood as a 'basic right to self-government' (*Grundrecht auf Selbstverwaltung*), but, still, represents a constitutional guarantee of municipal self-government to be further specified by respective 'community constitutions' (*Gemeindeverfassungen*) under the legal force of the *Grundgesetz*.

What is also clear from my research is how this notion was mobilised by Schönefelder in the 1960s. In accordance with the local-administrative character of *Daseinsvorsorge*, Schönefelder spoke of the 'community orientation of every individual' (*Gemeinschaftsbezogenheit jedes Einzelnen*), which justified 'establishing tracing and registration of identities' (*Ermittlungen und Registrierungen*) and, as such, were to be accepted by the individual under the

²³² Grundgesetz, Art. 28 Para 2 reads as follows: 'Municipalities must be guaranteed the right to regulate all local affairs on their own responsibility, within the limits prescribed by the laws. Within the limits of their functions designated by a law, associations of municipalities shall also have the right of self-government according to the laws. The guarantee of self-government shall extend to the bases of financial autonomy; these bases shall include the right of municipalities to a source of tax revenues based upon economic ability and the right to establish the rates at which these sources shall be taxed'.

condition of ‘effective democratic control’ (*wirksamer demokratischer Kontrolle*). Interestingly, Schönefelder, in defending the merits of the employment files, placed the concept of *Daseinsvorsorge* within contemporary discussions on the appropriate economic system for the young federal republic. For him, the need for the labour market’s ‘comprehensive transparency’ (*umfassende Transparenz*) was to be derived from the fact that national economies ‘cannot do without state, corporate and now even supranational intervention of various kinds, all the more so in a social market economy and for the purpose of real *Daseinsvorsorge* by the state’ (Schönefelder 1964: 149). His argument was placed between ‘liberalist economic activity’ (*liberalistisches Wirtschaften*) (Schönefelder 1964: 148) on the one hand, and social market economy on the other. For him, the latter went together with *Daseinsvorsorge*. Schönefelder perceived the modern economy based on the division of labour as an ‘extremely delicately responsive/sensitive, complex entity’ (Schönefelder 1964: 149), that was neither to be abandoned ‘rudderless’ (*steuerlos*) to the ‘washes of the waves’ (*Wellenschlägen*) of the world market nor to ‘egoistic spheres of interest and power’ (*egoistischen Interessen- und Machtsphären*). Securing the current ‘standard of living’ (*Lebenstandard*), which was primarily targeted by his interpretation of *Daseinsvorsorge*, required a ‘well-maintained employment statistics’ (*gut geführte Beschäftigtenkartei*) to render labour market development ‘instantly understandable’ (*sofort überschaubar*), ‘broken down by region to the minutest subsidiary area and by 98 economic branches, by professions, age, gender and in combination of particular characteristics’. The sensitive, complex economic and social structure required an equally sensitive, detailed and complex statistical system.

Schönefelder thus placed the statistical-technical question of whether or not, and if so, how, to register the working person in the context of *Daseinsvorsorge*. In opposition to Henkelmann’s normative framework claimed by universal human dignity for the economically active citizen, Schönefelder’s *Daseinsvorsorge* pointed to a legal administrative (*verwaltungsrechtlich*) rationality on the level of the municipality (*Kommunen*). Where Herbst and Henkelmann emphasised economic freedom and free movement of labour, Schönefelder’s *Daseinsvorsorge* brought administrative service, and at times coercion, to the fore.

6.3.3. BMA Economic Policy Logic: Global Figures for Economic and Social Policy Based on a Comprehensive Capture

The BMA administrator's gaze was crucially concerned with economic management, that is the alignment of economic policies and legislation to economic processes for which labour market observation and global statistical data, as detailed as possible, was considered necessary. As noted in Chapter 4, BMA minister Storch intervened on behalf of his statistical experts to ensure the continuation of the files and the statistics derived from them. Abolition of the file could only be considered, as BMA administrator Becker summarised the situation later, 'if the employment files could be replaced by a monitoring system ensuring the present statistical reporting in the same way with less effort'. This intervention took place in the spirit of the 'great amendment' (*grosse Novelle*) of the Law on Placement and Unemployment Insurance (AVAVG) passed by the German Bundestag in December 1956 (Krebs 1957; Draeger, Buchwitz et al. 1961). This re-institution of the original 1927 legislation of the same name already argued, in defence of §53 (*Anzeigenpflicht*), that the employees' file 'was indispensable for reasons of labour market and economic policies'²³³ (see also Chapter 4.4). Coherent national representation of the employment situation was further required by §202 (Labour market observation and statistics),²³⁴ a provision that would be referred to in following years in various, sometimes opposing, ways from both the labour administration and the state bureaucracy.

Accordingly, the BMA subdivision Ib (Economic Policy and Statistical Affairs, International Social Policy)²³⁵ came out in favour of a continuation of the entire employment file: 'Information taken from the placement file is only of very limited use for the observation of the labour market if not put in relation to the figure

²³³ BMA, note for the Meeting of des BAVAV administrative board on 9 and 10 March 1961, Frage der Weiterführung der Beschäftigtenkartei, 7 March 1961, in: BAK B149/12324.

²³⁴ The exact wording of those section of §202 (*Beobachtung des Arbeitsmarktes und Statistiken*) AVAVG important for the present context: '(1) Die Bundesanstalt hat die Lage und Entwicklung des Arbeitsmarktes im allgemeinen und in den einzelnen Wirtschaftszweigen, Berufen und Gebieten zu beobachten und zu untersuchen. (2) Die Bundesanstalt hat regelmäßig Berichte über Beschäftigung und Arbeitslosigkeit von Arbeitnehmern, über Arbeitsvermittlung, Arbeitsbeschaffung, Berufsberatung und Lehrstellenvermittlung sowie über Arbeitslosenversicherung und Arbeitslosenhilfe zu veröffentlichen [...] Der Bundesminister für Arbeit kann die Durchführung bestimmter Statistiken dieser Art nach Inhalt und Umfang vorschreiben'. The intention in §202 was pretty much contained in §215 AVAVG from 1927, see Krebs (1957: 514).

²³⁵ Unterabteilung Ib 'Wirtschaftspolitische und statistische Angelegenheiten, Internationale Sozialpolitik'.

of employed persons (unemployment rate)'.²³⁶ Head of Division Ib3 Galland identified three purposes for which labour statistics were supposed to be designed:

First, statistical information was used for the creation of legal foundations and preconditions for social policies to be subsequently enacted by the executive: 'The preparation of respective draft bills (legislative) usually requires that the state of affairs to be regulated is known by its proportions, that ideas exist on how many persons presumably are going to be affected by the law either negatively or positively' (Galland 1958: 39). Statistics were supposed to shed light on facts (*Tatbestände*) relevant to social policy so that 'the basis of every social law nowadays is numerical'. Data on the individual for 'the duration of his participation in working life' (Galland 1958: 39), had been used to assess seasonal unemployment during the winter months, and were supposed to deliver data on the fate of miners as well. Statistics promised further information on the age distribution of the working population, particularly in combination with economic branches – knowledge important to capture the 'manpower' (*Arbeitspotential*) of old and young. Further, it was believed to thresh out data on the changes in connection with the structural change (*Strukturwandel*) in the economy, as well as with technisation (*Technisierung*) und rationalisation (*Rationalisierung*). The statistical appendix to the draft of the 1957 AVAVG amendment consisted of 47 numerical surveys and 19 graphs.

Secondly, these social policy measures were supposed to be co-ordinated with other ministries following a rationality according to which various policy fields (such as labour market and economic policy; labour market and demographic policies) were 'causally linked' with each other 'in such a way that causes here may have effects there and vice versa' (Galland 1958: 39). Labour statistics were thus considered indispensable 'as basis of interdepartmental coordination' (Galland 1958: 40).²³⁷ A whole series of other statistical productions on behalf of the BMWi, the German Federal Bank, the Chambers of Industry and Commerce, the Chambers of Trade and in particular of the economic research institutes served from this perspective as the primary means to rationalise collective governmental action. Further, public reports essentially made up of numerical data and statistical tables

²³⁶ BMA, Ib2, ORR Schmidt, Fortführung der Beschäftigtenkartei, 31.12.59, in: BAK B149/12324.

²³⁷ Ibid. 'als Grundlage von Verhandlungen der Ressorts untereinander'.

helped these institutions to legitimise their actions towards the public. Statistical series ranging over several years and published in annual reports not only helped enlighten the public on the employment situation in the Federal Republic of Germany, but also justified the government's work in that respect. Given this, during a departmental meeting in July 1958, other ministries were unequivocal in their support of the file. The statistics was considered an indispensable database for, among other things, forecasts of the national product and tax revenues (Federal Finance Ministry); assessment of business and productivity trends (Federal Ministry of Economy); and observations on the integration of displaced persons into economic life (Federal Ministry for Displaced Persons, Refugees and Disabled Ex-Servicemen).²³⁸

Thirdly, data derived from the employment statistics was an essential ingredient for international social policy recommendations. With the ascent of the post-1945 'global community' for social and political security, economic growth and full employment, the circulation of statistical data entered a new dimension. National delegates needed to be supplied with the necessary data by reference to which they were supposed to 'prove their deliberations on economic and social facts' (Galland 1958: 40) during meetings in international organisations. And the statistical departments of these institutions requested numerical data to 'illuminate' (Galland 1958: 40) specific single problems such as seasonal unemployment or to contribute to editing of regular reports or annuals.

As the reconstruction of the ex post debate has shown, two rather antagonistic stances cum statistical gazes can be discerned by the early 1960s. BMA higher-rank officials and local practitioners within labour offices were in favour of the files and the statistics for complementary reasons: to protect life within labour and society against social and economic uncertainties. They differed, however, over the scale of application. Whilst the state administrator's gaze preferred a statistical coverage of the national territory by global figures, the local practitioners' gaze, embedded in the practicalities of placement service within the locality of the AA district, preferred territorialised data generated during 'authentic contact' (*echte Kontakt*) between placement officer and advice seeker. Trade union and employers' representatives

²³⁸ See BMA, IIb2, Niederschrift über die Ressortbesprechung am 22.7.58, in: BAK B149/12324.

within the BAVAV executive and the administrative board wanted the files abolished. For these bodies, any future statistical initiatives should be contained within the rule of law and economic freedom. Their reasoning was supported by a statistical logic according to which the file was 'silted up' (*versandet*), and so inaccurate in the first place. Further, by that time, there was general agreement as to an adjustment and subsequent maintenance of twenty to twenty-one million files was practically impossible to the result that the files were not trusted as the basis of the labour statistics.

6.4. Statistical Representativeness as 'Solution': The G-Files and the Primacy of a National Representation of (Un-)Employment

During a meeting of the BAVAV executive committee and a administrative board committee in February 1961, BAVAV vice-president Dr Hans Henschel (see Appendix I) brought into play for the first time the possibility of a 'representative statistics'. A 5% sample of the files, constituted of all those whose family names start with the letter G would, according to Henschel, accommodate the intention of employee and employer representatives to abolish the file altogether, and would, at the same time, meet the requirements of § 202 AVAVG (*Labour market observation and statistics*), which legally bound the BAVAV to maintain the statistics. During that meeting BMA *Regierungsdirektor* Dr Günther Kranz attempted to defend the file based system in its entirety. File-based registration of machines and tools, as well as human beings was omnipresent, also in small businesses, according to his reasoning, so that the labour administration was ill-advised to do without such an instrument. Henkelmann, however, opposing the files since their re-establishment under BAVAV auspices in 1952, was willing to defer his concerns if the G-files were introduced.²³⁹

²³⁹ See BMA, IIb4, Vermerk, betr. Sitzung des Vorstandsausschusses und der Kommission des Verwaltungsratsausschusses für allgemeine Fragen für Rationalisierung und Organisation on 1 February 1961, in: BAK B149/863.

The idea of representativeness had occupied local labour statisticians' minds since the early post-war period. As Gegler had reported in 1950, in terms of time and cost saving, the idea to count only every tenth file card 'is very appealing' (*hat etwas sehr Bestechendes*). Attempts had been made to test the accuracy of such samples in comparison with the enumeration of the entire file (Gegler 1950a). Mathematical statisticians counted such representative samples under 'popular sampling methods' (*populäre Stichprobenverfahren*) (Kellerer 1949: 84) for the precise reason that neither the question of which selection method to choose, nor the procedure by which to select the sample case were guided by mathematical calculations and the formulae that came with it. Labour offices usually deployed quasi-random selections, following birthday, surname or house numbers – all of which the StBA mathematical statisticians had qualified as 'surrogate techniques of random sampling' (*Ersatzverfahren für Zufallsauswahl*) compared to a proper random selection (StBA 1960: 31). For Gegler, mathematical statistics were usually used to calculate and hence control probable errors of the representative value, but he did not go into further detail. Before we can further discuss at which point Gegler and other labour administrators felt uneasy about the introduction of samples, we will have to attend to the reasoning of BMA labour statisticians with regard to the value of representativeness.

During the March 1961 meeting, the BAVAV administrative board approved of Henschel's plan and commissioned a delegation, under the stewardship of Henschel, to approach the BMA to win its approval for the issuance of the files to be rescinded. A representative sample should suffice and, simultaneously, the BAVAV should be released from the maintenance of the entire employment file and the quarterly comprehensive count of employees. By 20 July, the delegation, consisting of leading representatives of the BAVAV executive and administrative board, discussed the future of the employment files with BMA department II.²⁴⁰

In the meantime, between February and July 1961, the BMA labour statisticians and mainly Theodor Galland, seemed to have embraced the idea of a representative sample. First, Galland drew a boundary around what 'the statistics'

²⁴⁰ Walter Henkelmann, Karl-Wilhelm Herbst and Kurt Draeger participated on behalf of the BAVAV executive board. BAVAV Vice-President Henschel represented the administrative board (*Verwaltungsrat*), Theodor Galland, Stothfang and Becker participated on behalf of the BMA departments I and II. See Ergebnisprotokoll, Betr.: Weiterführung der Beschäftigtenkartei der BAVAV, BMA, IIa3, 10 August 1961, in: BAK B149/12324.

could or could not decide in the question of whether the G-sample would suffice: Whether or not ‘such detailed information was needed in practice’²⁴¹ did not fall into the area of responsibility of BMA statisticians in subdivision Ib. As far as the statistics was concerned, the fact remained that the *Mikrozensus* was only capable of delivering an incomplete picture of the employment situation. Regional segmentation only reached to the level of the *Länder*, and then with reference to only three social positions (*Selbstständige, Mithelfende, Abhängig Beschäftigte*), and with a considerable time lag between data collection and publication of results. Any alteration to that would have required a new legal basis according to the law regulating federal statistical activity, equivalent to a tedious parliamentary procedure.

During a meeting among BMA heads of departments in June 1961, Galland even went a step further in declaring that ‘statistics nowadays does not hold any more a prior interest in maintaining the biannual total count of employed persons’.²⁴² From within a statistical logic, Galland’s viewpoint was unexceptionable. The employment file, silted up and only partly adjusted, without a genuine possibility of change in the near future (due to tax secrecy, and a lax legal obligation to notify changes of job for employees, so that silence on the part of the employees was daily fare)²⁴³ had lost its capacity and trustworthiness to deliver an accurate picture. Further, as far as changes to the overall population of employed persons were concerned, the *Mikrozensus* was now believed to be sufficient, at least with regard to ‘four main economic areas, by *Länder* and a rough age distribution’.²⁴⁴ According to Galland, sub-department IIA (Labour Market Policy, Employment Placement, Vocational Training, Foreign Employees)²⁴⁵ was in charge: it was here where a ‘continuous numerical reporting on detailed questions’ was actually needed for practical purposes. Statistically, in any case, ‘a continuation of the entire file can

²⁴¹ ‘solche detaillierte Angaben von der Praxis benötigt werden’, see Vermerk, BMA, Ib3, Betr.: Statistik der beschäftigten Arbeitnehmer, 7 March 1961, in: BAK B149/12324.

²⁴² Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6 June 1961, in: BAK B149/12324.

²⁴³ The future of the files still pending, by July 1959, the BAVAV management decided to commence a partial adjustment in several selected LAÄ districts. By circular, the LAÄ Baden-Württemberg and North-Rhine Westphalia were asked to adjust their files by the help of tax offices’ lists on wage tax cards issued. The Federal Finance Minister however vetoed this procedure shortly after with reference to tax secrecy. See Ergebnisprotokoll über die 50. Sitzung des Vorstandsausschusses für Rechts- und Verwaltungsfragen am 7. Oktober 1959 in Nürnberg, 27. Oktober 1959, in: BAK B149/12324, and circular decree 203/59.7.1. from 28 July 1959, betr. Statistischer Nachweis [...] Karteibereinigungen.

²⁴⁴ Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6 June 1961, in: BAK B149/12324.

²⁴⁵ ‘Arbeitsmarktpolitik, Arbeitsvermittlung, Berufsberatung, Ausländische Arbeitnehmer’.

hardly be justified from a today's state of affairs'. On the other hand, 'only mathematical experts could answer'²⁴⁶ the question whether or not the G-file would serve as a sufficient basis of these more local and detailed knowledges required by the ministries.

The social statisticians' hands were tied at this stage due to their professional self-understanding as both (or either) incompetent with regard to questions of representativeness, and disqualified from meddling with the actual decisions over what the data was going to be used for. As a result, the mission to the BMA in July 1961 came close to what the BAVAV delegation expected: signs pointed to an abolishment of the employment files, without the BMA representatives ever giving their final consent. There was agreement that an adjustment and the subsequent maintenance of twenty to twenty-one million files was practically impossible, even if the fiscal authorities or health insurances would grant assistance for such an endeavour.²⁴⁷ At the same time, the G-file was not entirely trusted either by statisticians or by labour administrators, since a faulty sample would, more so than a faulty basic population, produce inaccurate statistics. The fact that the errors would increase in a sample was also recognised by LAÄ statistics officers in November 1961.²⁴⁸ In this regard, employers' representative Karl Wilhelm Herbst suggested counting the G-cases parallel to the next 'comprehensive count' in order to obtain 'proofs on the G-proportion of employees in single districts and by occupational groups'. Further, it was agreed to take the results of the 1961 population and occupational census – to be expected by the beginning of 1962 – as a further control within LAÄ districts. There was general agreement, however, that 'the existing

²⁴⁶ Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6 June 1961, in: BAK B149/12324.

²⁴⁷ An improvement of the BAVAV placement efforts – 'ein großes Anliegen der Organe und der Verwaltung der BA' – based on employment files updated by the 'objektiven Angaben der Einstellungs- und Entlassungsanzeigen der Krankenkassen' was turned down by the BAVAV representatives 'aus psychologischen Erwägungen'. See Ergebnisprotokoll, Betr.: Weiterführung der Beschäftigtenkartei der BAVAV, BMA, IIa3, 10. August 1961, in: BAK B149/12324. Several years later, for the new employment statistics, this measure was taken on board (see Chapter 9).

²⁴⁸ There was general agreement among labour statisticians that 'If we were unsuccessful in maintaining the G-files accurately, information gathered for labour statistics would be even more dangerous than the erroneous information on the basis of the entire file, since errors exponentiate in samples', in: Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern am 28. und 29. November 1961 in Nürnberg; p.4 in: BAK B149/12324.

central file for foreign employees and the local files of labour offices were not affected by this possible reorganisation'.²⁴⁹

6.5. The Establishment of G-Sample as a Credible Selection

At that point, the letter G was only one possibility among others brought into play by BAVAV representatives based on former experiences with sample selections. The question, however, as to whether or not G files were actually suited to represent the basic population to a sufficient extent had not been tackled. But a more fundamental issue seems to have been at stake. Labour administrators and statistical experts, especially those on the level of the AÄ, had to be convinced that a sample of the files indeed represented the entire population. As noted above, the logic of *Daseinsvorsorge* pre-supposed a model of society based on diversity and locality, and favoured a statistical description of its elements from the bottom up and 'without gap'. How could sampling, with its association of partiality, be sold to labour administrators who were persuaded of the diversity of the local labour office district they often intimately knew and which they represented? As Gegler mentioned in 1950 with regard to previous tests within AÄ, representative counts of the files turned out to be valid with regard to 'larger bodies of measurement' (*größere Zählkörper*), that is LAA districts mainly. Across smaller units such as local labour office districts, however, the results diverged considerably. As Gegler concluded: 'From the point of view of a single labour office, it will always remain unsatisfactory that a count is unusable for the labour office's district area. Or, that reasons of statistical truth even prohibit a further processing and that results only achieve greater probability on the level of the LAA district' (Gegler 1950a: 11).

Local practitioners were reluctant to abandon detailed local knowledge for the smooth amalgamations presupposed by statistical representativeness. As will be shown, by the time the abolition of the files was already sealed, local labour administrators were joined by representatives of other local public bodies, especially the German Association of Cities and Towns (*Deutscher Städtetag*), and the

²⁴⁹ Ergebnisprotokoll, Betr.: Weiterführung der Beschäftigtenkartei der BAVAV, BMA, IIa3, 10 August 1961, in: BAK B149/12324.

municipal branches of the Chambers of Trade and Commerce (*Industrie und Handelskammern*) for the same reason. The law of large numbers, which links the partial information provided by the occurrences of a few events or elements with the theoretical probability that the rest would bear the same characteristics, just did not apply to their setting. Local experts, whether on the level of the municipality or the local labour office district, were too aware of the heterogeneity of their respective ‘spaces of measurements’ (Desrosières) to accept the idea of homogeneity between people and economic activities assumed by statistical representativeness. Such an assumption across a wide state territory was difficult for them to reconcile with what they saw and did in their everyday practice.

Against this backdrop, there is evidence as to how the BAVAV administration went about determining the basic population and establishing credibility with regard to the G-cases. As will be shown, the discursive frame within which these strategies played out was foreign to that of placement officers and classical labour statisticians. The statistical reasoning essentially followed mathematical statistics, formulas and pre-defined set of rules which determined what was and was not an accurate measurement (Chapter 5.3.). Representative samples and the probability calculus on which they were based were discussed within the labour administration by late 1963. BAVAV mathematician Matthias Ebeling introduced the basic concepts of representative sampling during meetings of LAÄ statistical officers in December 1963 and 1964. This case illustrates, with reference to the example of representativeness, that by the mid-1960s the redefinition of statistics as a method based on probability calculus and mathematical formulae was also discussed among labour statisticians. The re-shaping of the statistical discourse – experienced by contemporaries as ‘mathematisation’ – had reached the administrative statistical realm.

As with every random sample, the first question to decide was whether the representative sample, the data obtained on some individuals, would also apply to others: did the sample represent the whole in all characteristics one wished to obtain information on. At the same time, the selection had to be random. In the 1920s, the weaknesses of representative samples were precisely identified in the arbitrariness of case selection. During the Nazi period, manifold statistical activities were almost

exclusively based on a mixture of census and registry-based data. The labour administration only functioned on the basis of a wholesale registration beginning in 1935. In order to guarantee randomness and representativeness, the BAVAV usually followed the selection of the initial letter of the persons' surnames. As mentioned earlier, there were other procedures such as date of birth or the house numbers, but in the case of the employment files, the initial letters were selected for the simple reason that the file system contained 'the most comprehensive accumulation of family names currently available, capturing individuals evenly in all areas of the Federal Republic'.²⁵⁰ In terms of representativeness the question was which letter would represent the entire alphabet. Accordingly, in November 1961, the BAVAV statistical service in a circular to all agencies wanted to know 'how common the different letters of the alphabet as initial letter of family names were among employees'. To determine the frequency of initial letters, the entire tracing file constituting of roughly thirty millions files ordered by occupational groups, was counted in every AA. The results differentiated by gender were tabulated in a special form and transferred to the respective LAÄ where the figures were aggregated at the level of the LAA district. The entire endeavour involved a warning for tallying clerks and other manpower involved that they take the counting seriously: 'any mistake, howsoever minor, will significantly affect the value of future representative surveys'.²⁵¹

The results were presented and interpreted in a 1962 issue of the BAVAV official bulletin under the title 'Frequency and Distribution of Initial Letters among Family Names in the Federal Republic of Germany (including West-Berlin)'. In order to check plausibility, the frequency of each letter in per cent obtained from the files was compared with the results of an enumeration of initial surname letters from thirty telephone directories undertaken by the StBA for a different purpose. The actual significance of the measurement for each letter was calculated by arithmetic averaging and by calculating the variation coefficient of every single letter. Chapter

²⁵⁰ Taken from a 1962 publication entitled 'Frequency and Distribution of Initial Letters among Family Names in the Federal Republic of Germany (including West-Berlin) (*Häufigkeit und Streuung der Anfangsbuchstaben bei den Familiennamen in der BRD einschließlich Berlin (West)*)', in: BAK B B149/12324. The article was originally published in the 'Amtliche Nachrichten der BAVAV' in 1962. Volume and issue could not be verified.

²⁵¹ BAVAV, IVb3 (Dr. Degen), An alle Dienststellen der Bundesanstalt, Auszählung der Suchkartei, 13 November 1961, in: BAK B149/12324.

2.5 introduced some of these statistical-mathematical measures as vital to construct scientific objectivity as an equivalent to ‘truth’ and intersubjective agreement among scientists and among scientists and the public. Here, we can see that the authors did not mention the methods with which the files were counted prior to these calculations, nor did they describe the probability model used. The presentation of results, as contained in the article, did not contain any calculation. Through comparison with telephone directories, the frequency of each letter was proven plausible; the actual human practices underlying both the compilation of the initial letters by the StBA, and the actual comparison with letters counted from the file cards remained invisible. The numerical methods, undisclosed as they were, would have rather convinced all those who knew what they meant without seeing the actual calculation. Fellow statisticians agreed on the basis that they all followed the same method. The effects of the variation coefficient, commonly defined as ‘the ratio of the standard deviation of a number of measurements to the arithmetic mean’ (Hendricks and Robey 1936: 129), not only normalises the variation. Through the elimination of personal judgement built into the mathematical procedure, it also disciplined and normalised those who adhered to it and hence recognise it as a pre-defined set of mathematical rules, which decide *in advance* which range of values constituted grounds for considering the letter G more likely to be appropriate than any other letter: a variation of 0.352 for G was conventionally more convincing than, say, 0.379 for R.

Whilst quantified and tabulated data might have convinced other statisticians and scientists of the accuracy of the methods applied and of the results’ veracity, this was not necessarily the case for non-expert consumers of statistics, such as trade unions and municipal bodies. What helped one group of experts to communicate across empirical messiness did not necessarily help another group, especially not if interests came into play that might prompt the latter group to question the results established by the former. To further verify the appropriateness of the letter G, the authors provided a more common visualising strategy: the cartogram. In order for the cartogram to serve its purpose, the numerical data needed first to be spatialised. The frequency of each letter was tabulated by thirteen LAÄ and 176 AÄ districts. This showed that initial letters were not equally distributed across the districts, but rather

showed a fairly equal distribution. The normality underlying the representative sample also had to be established with regard to the names of guest workers, of which roughly 500000 were employed in West Germany at the time. Here too, the variance – due to a different distribution among ‘foreigners’ surnames’ – was calculated per labour office district, the most extreme case here being C: only 1 in 100 Germans had a surname starting with C whereas ‘guest workers’ put this letter in the bins by a variance of 1.27 in comparison with the German normal population.

The procedure described above proved with reference to mathematical calculations that a representative sample based on G-files only was indeed possible. Efforts to convince a wider readership by way of visualising numerical results in tables and cartograms – notwithstanding the objectifying effects that arose from numerical data and formula alone – further underscored these scientific results, which, had they been taken by their own, would probably not have convinced the labour administrators unfamiliar with mathematics. During a meeting among BMA representatives and the members of the BAVAV executive board in February 1963, it was decided to discontinue the employment files ‘for statistical reasons alone’ (*allein aus statistischen Gründen*)²⁵⁴ by 31 December of that year. For the purpose of observing the employment level, a representative statistics was planned, on the basis of the G-file as their administrative source. In August 1963, BMA department I (Haenlein) suggested the adjustment of G-files in all AÄ,²⁵⁵ a suggestion put into practice by a BAVAV circular from 28 October 1963.²⁵⁶ G-files of all German employees were sorted out – unadjusted as they were – from the entire file. Those who previously were uncovered by the statistical gaze remained so: home workers, soldiers, marginally employed, vessel crews and civil servants. The files for foreigners and commuters crossing national boundaries (*ein- und auspendelnde Grenzarbeitnehmer*), however, were kept in their totality. The employment files, on behalf of head of BMA department II Käfferbitz (see Appendix I) were also kept as a dormant file, unadjusted.

²⁵⁴ BMA, Ib2 (Scharlau) to department II, betr.: Fortführung der Beschäftigtenkartei bei der BAVAV, January 1963, in: BAK B149/13124.

²⁵⁵ BMA, Ib2 an den Präsidenten der BAVAV, Betr.: Statistik der beschäftigten Arbeitnehmer, 16 August 1963, in: BAK B149/12324.

²⁵⁶ Circular contained in BAVAV Dienstblatt Nummer 47 from 7 November 1963, taken from BAK B149/12324.

By that time, the German Association of Cities and Towns (*Deutscher Städtetag*) made a rather belated plea to save the total capture on behalf of the AÄ employment files.²⁵⁷ If the files were going to be scrapped, the employment situation, such as job and professional change, as well as the ‘local fluctuation of the employees’ (*lokale Fluktuation der Beschäftigten*) in cities and towns would fall below the statistical radar. Similarly, the Chamber of Industry and Commerce in Berlin considered that with a G-sample ‘indispensable figures would be lacking’ (*unentbehrliche Zahlen fehlen*) since the ‘correcting law of large numbers’ (*ausgleichende Gesetz der großen Zahl*) was simply considered ineffective in metropolitan regions.²⁵⁸ As will be shown in Chapter 8, the adjustment of G-files turned out to be most difficult in densely-populated areas.

During the 1963 and 1964 meetings amongst LAÄ statistics officers at the BAVAV, qualified mathematician Ebeling from the BAVAV statistical service (sub-department IVb) presented random sampling methods in general and those practised within the BAVAV in particular.²⁵⁹ With the envisioned introduction of G-files, representative sampling was also discussed within the labour administration. Ebeling, in an introductory manner, praised the economicalness of sampling, mentioned the differences between random and systematic case selection – the latter had been pursued within labour offices since the 1950s already by selection of birthday date or house numbers. During the 1964 meeting, Ebeling further gave a broad account of the historical development of random sampling. Random sampling was taken as the epitome of a broader transformation in the ‘task and definition of statistics’ (*Aufgabe und die Begriffsbestimmung der Statistik*). Strikingly, Ebeling cited a section of Jones and Robert’s essay (Jones and Robert 1952). As discussed in Chapter 5.3, the same passages already had appeared in Kellerer’s seminal textbook (Kellerer 1960: 13-14): According to the American statisticians, statistics had become to be regarded as ‘a method of making wise decisions in the face of uncertainty’ (Jones and Roberts 1952: 6). Ebeling adopted this phrase in inverted

²⁵⁷ Deutscher Städtetag (Dr. Weinberger), an den Bundesminister für Arbeit und Sozialordnung, betr.: Statistik der Beschäftigten, 17. Dezember 1963, in BAK B149/12324.

²⁵⁸ Die Berliner Wirtschaft, Nr 10, 15. Jg., Mitteilungen der Industrie und Handelskammer Berlin, 1 April 1965, in: BAK B149/12324.

²⁵⁹ See Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern am 19. und 20. Dezember 1963, and Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern 24. und 25. November 1964, in: BAK B149/12324.

commas without mentioning the authors.²⁶⁰ As in Kellerer's case, this definition helped demarcate statistics as a method from the 'generally accepted opinion that statistics were an enumeration of questionnaires or files concerned with the production of tables and graphs'.²⁶¹

6.6. Conclusion

This chapter has interpreted the plans to introduce a representative sample (G-file) as a statistical basis for labour market observation as the effect of a scalar debate among on the one hand local practitioners within the LAÄ and AÄ, representatives of municipalities, and social statisticians, and, on the other, labour market administrators with the BMA, the BA employers' and employees' representatives and mathematical statisticians on behalf of the StBA. Representativeness, as I have framed it, played the role of a 'solution' to this rather complex and messy historical geography of civic metrology. It did so, first, by rendering possible the adjustment of the G-files only, which was considered more feasible than adjusting the entire file. Secondly, the idea of a representative sample solved – at least on the cognitive level – the conflict in that it helped to re-define the underlying problems. What hitherto had appeared as an irresolvable clash of different and habitual ways of thinking and seeing the state, the social and the economy, enmeshed with different administrative practices on different scales was suddenly re-defined as a mathematical problem of what part represents the whole, which letter represents the entire alphabet, which sample represents the entire population.

Representativeness, again on a cognitive level, explicitly defined the nation as the relevant whole to which the *Länder* and the respective G-cases of the files were related as the part. Any scale below the level of the *Länder* could not be represented any more. Federal Labour office executives disagreed with this file-based perfectionism and its Nazi past. For them, a representative sample helped overcome the economic planning and statistical registration of the Nazi time. The economical

²⁶⁰ Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern 24. Und 25. November 1964, p.12, in: BAK B149/12324 (see entire quote in Appendix II).

²⁶¹ Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern 24. Und 25. November 1964, in: BAK B149/12324.

value that came with it was in line with their pledge for human dignity and democratic rule of law under conditions of economic freedom: representative samples do not waste resources; they are less costly, and involved less harassment of the population in that they did not intrude as much into personal lives. Government officials found their demand for global, albeit detailed, figures met by a representative sample. Economic management was believed to be possible on the basis of a national representation of the labour market from aggregated figures. At the same time, there were other complementary statistics available which could be used for the same purpose: the *Mikrozensus*, for example, also a representative sample, was introduced in 1957 and slowly won their trust at least with respect to the level of the *Länder*.

By contrast, local practitioners were disarmed by the mobilisation of a representative sample of the files, hitherto kept and maintained within their labour offices. As described in Chapter 4, labour statisticians produced labour market statistics by counting the administrative files produced in the context of placement services. This chapter has shown how the federal institutions argued with reference to a part of the files only which was supposed to be related – by way of mathematical calculation – to the federal territory. The local statistical gaze of practitioners on the ground, emanating from territorialized file production and their enumeration, was juxtaposed with a delocalised, representative sample of G-cases only. This not only described a completely different procedure for which local labour statisticians did not necessarily have the expertise. It also stripped them of their space of action, the local labour office district, which now, statistically speaking, fell into darkness.

Thinking in geographical scales, one thus has to conclude that there was a transition from the locale to the nation, from the city, the local labour office district to the federal territory. At the same time, the statistics were now supposed to be produced in a different professional context. The placement officers and file workers hitherto in charge of the files were on the verge of redundancy or were appointed to different positions. For the G-files, only a fraction of the employees was needed. A new generation of mathematically-trained statisticians was supposed to take care of the statistics. Representativeness was only a solution insofar as it allowed actors to look at the problem from a different angle. Representativeness itself was, of course,

only a concept, a factor in the broader social and political context in which these debates were embedded.

The debate on the employment statistics can also be contextualised in the broader 'caesura' identified for the late 1950s (see Chapter 3) when post-war reconstruction came to an end, and major inventions sometimes dating as far back as to the imperial epoch were crucially modified. As Schmid, Wiebe et al summarise with regard to employment policies during the 1950s, 'labour market policy and unemployment insurance faced problems, after overcoming employment planning, to re-organise labour market regulations, to redress the complexity of regionally specific arrangements, to attain uniform norms, as well as to define the boundaries of the central actors on the labour market' (Schmid, Wiebe et al 2005: 283).

As this chapter has shown, after more than ten years of debate during which the BAVAV labour statistical infrastructure was essentially working with rudimentary databases, the G-files and the statistics derived presented a solution which was feasible, it seemed, in statistical and administrative terms. With these issues in mind, I now move on to explore the issue of employment forecasting

**7. Employment Forecasts as a Mode of Government:
OECD Developments and their Reception in West
German Labour Statistics 1961-1966**

7.1. Introduction

Whilst labour administrators and statistical experts expended their energies adjusting the national labour statistical infrastructure to the new standards of statistical accuracy set by the *Mikrozensus* – notwithstanding legal constraints, political interferences and administrative requirements applicable to BAVAV statistical activities – a more general shift increasingly made its presence felt in the politics of labour statistics. From the early 1960s, overall labour shortages drew employment figures and their economic value slowly to the administrators' attention at the expense of unemployment figures and of those socio-political rationalities these figures were embedded in. What had been the focus of the public and the experts attention during times of manpower surplus and post-war chaos now gave way to views on how to balance scarce manpower for the purpose of 'planned' economic growth (see Chapter 3.8.1). In this regard, Galland's critical elaborations on manpower requirements identified the problem: 'Ever since the number of job vacancies constantly were above the number of available unemployed, the elimination of that labour market imbalance has become a central economic policy issue' (Galland 1962: 933). Calculating and forecasting manpower requirements, to be met either from national 'reserves' or through foreign resources, was considered *the* formula to level this imbalance and to guarantee a continuing economic development. Further, 'economic rise' (*Wirtschaftsaufstieg*), as Galland put it, was the overall goal and manpower balance policies were considered the principal entry point for national economies to attain it.

We have seen how the rise of applied economic research during the 1950s and the scientisation of governmental action more broadly can be considered two major fields that helped forecasts and forecasting to be in the ascendant. Short-term economic forecasts were most importantly initiated by the Marshall plan. The OEEC subsequently pushed for quantitative forecasts of the general economic development in its member countries, to be developed in national accounts. Originating in economic forecasts (the 'economic barometers' of the early twentieth century), employment forecasts crucially appeared on the international policy agenda during the war economies of the 1940s to be subsequently embraced by trade unionists and

economic planners alike. This chapter shows how the OECD functioned as a crucial disseminator of statistical and technical expertise in this field. This time, labour forecasts were built into the programme of so-called active manpower policies, the methods of which, as this chapter argues, were already enshrined in the 'Employment Service Recommendation' and in related recommendations passed at the twenty-sixth session of the ILO in Philadelphia in April 1944²⁶² (see Toft 2003 for remarks in support of this argument).

In the context of these developments, a post-war 'government of variables' (Donzelot 1988) sought to legitimise its actions towards the economy and the public precisely through the possibility of gearing its actions to future economic development. Such future-oriented economic policy was pertinent in the context of economic growth as a government objective, which required labour administrations and state ministries to focus their energies on the establishment of early-warning systems in order to obtain information on economic restructuring or change. Concomitantly, a new generation of empirical economic researchers built their careers around econometrics and modelling, rapidly making their way to the status of state experts and political advisors at the expense of a heterogeneity of economic schools in Germany (Nützenadel 2005: 44f.; Fourcade 2006; Hesse 2010).

As also demonstrated (Chapter 3.8.3), the new governmental mode, however, was anything but undisputed. Applied economic researchers and state planners not only disputed amongst each other and with other economic sub-disciplines. Official statisticians were also increasingly drawn into these politico-scientific debates. Both fields, especially since the foundation of the Federal Republic, maintained a conflictual relationship as the problematic experiences of the Weimar and NS-period was not to be repeated when the Institute for Business-Cycle Research (IfK) as a branch of the Reich's Statistical Office possessed a quasi monopoly on economic observation (see Chapter 3.8.2). After 1945, official statistics and empirical economic research were supposed to be institutionally separated. Further, what Nützenadel identified for the German post-war period as 'institutional pluralism' (Nützenadel 2005: 107) was supposed to guarantee such distance to politics and state

²⁶² This recommendation fully reads as 'Employment (Transition from War to Peace) Recommendation' and is to be found online under www.ilo.org/ilolex, as the standard published ILO print collections did not reproduce this and related recommendations.

institutions, believed to be the necessary prerequisite for statistical neutrality (see also Fürst 1972a: 80). Such noble aims, however, were not only a matter of institutional arrangement.

In this chapter, I build upon this evidence to examine the essential boundary-drawing activities (Gieryn 1999; Gieryn 2001) between official statisticians and economists, and state planners in the post-war period with a particular focus on economic and employment forecasts. I do so by relating discussions on labour forecasts within the OECD Manpower and Scientific Affairs Committee to their German counterparts, mostly official social statisticians. The first section contextualises labour forecasts within the programme of an active manpower policy disseminated under the OECD since the early 1960s. I interpret an active manpower policy as the flipside of simultaneous efforts on behalf of the OECD Scientific Affairs Directorate (SAD hereafter) to incorporate scientific research and technological development for the purposes of economic productivity (Godin 2005; 2008). Whilst an active manpower policy was concerned with the ‘adaptation’ of the work force to technological progress (for which vocational training and counselling were crucial), the SAD initiatives aimed at configuring science and technology, and education and training as economic factors.

This chapter moves on to show how, under the aegis of an ‘active manpower policy’, employment forecasts were supposed to be inscribed in national labour market policies. What had hitherto been confined to employment services or the official statistical offices, namely the extrapolation of statistical series from past series to future trends, was to be methodically improved and aligned to the overall economic policy objectives of growth and the optimal utilisation of manpower. I demonstrate too that the German statistical authorities were for various reasons sceptical about the sheer possibility of predicting manpower requirements. StBA and BMA statisticians harboured organisational and methodological concerns. As a detailed analysis of Galland’s essay reveals (Galland 1962), the social statisticians’ factual logic posed serious intellectual problems for their engagement with forecasts based on numerical estimates. Such intellectual and practical problems notwithstanding, labour statisticians found a way around this: statistics of job vacancies. Instead of counting the missing (or required) subjects, the vacant

workplaces (as far as they were known) were set as the object to be known. The last section gives a more general account of boundary-drawing activities among official statisticians and economic forecasters based on a detailed analysis of conference proceedings of the 1966 DStG annual meeting on ‘Statistics and Forecasts’ (*Statistik und Vorausschätzung*).

Gieryn’s (1999; 2001) work is valuable in this context as it illustrates how messy and contested scientific activities were at the boundary both of different sciences and science and politics. Typically for work in the sociology of knowledge, the main argument for the importance of the boundary problem in science is to say that there is no essential content of what *is* science and non-science and, consequently, no unique or invariant qualities which separate the two. At the same time, however, the opposing constructivist argument according to which the demarcation between science and other spheres of knowledge producing activity is always contextually contingent and an interest-vested pragmatic accomplishment, has become unconvincing for science researchers in so far as it does not succeed in explaining the ‘cognitive authority’ (Gieryn 2001: 405) science arguably possesses in Western societies (Hacking 1999). Gieryn’s perspective on boundaries helps get around this paradox. For Gieryn, the epistemic authority of sciences warrants some explanations drawing on epistemological and social qualities *essential* to science and not found outside it. But, at the same time, he cautions against using the essentialisms invented by sociologists to characterise modern sciences in that he focuses on the ‘explicit articulation’ (Gieryn 2001: 405) i.e., the representations of scientific practice and knowledge of those actually involved in boundary work. Gieryn defines boundary work as ‘the attribution of selected characteristics to the institution of science (i.e., to its practitioners, methods, stock of knowledge, values and work organization) for purposes of constructing a social boundary that distinguished some intellectual activity as non-science’ (Gieryn 1983: 782). Crucial for the present context is Gieryn’s typology of boundary work (2001: 424-439), which helps to schematise the boundary problems involved here.

Most scholarship takes the 1964 Council Recommendation ‘Active Labour Market as a Means for Economic Growth’²⁶³ as the primary document wherein the principles of an AMP were laid down (e.g. Altmann 2004; Schmid and Oschmiansky 2006; Weishaupt 2011). The relative importance of that document is undisputed. As far as the basic principles of an active labour market policy are concerned, however, I suggest that the earlier ‘Guiding Principles for a Long-Term Programme’²⁶⁴ was the more crucial document. This document was prepared by Albert Delpérée²⁶⁵, Bertil Olsson²⁶⁶ and Seymour L. Wolfbein²⁶⁷ – ‘acting in their personal capacities’ – on behalf of the OECD Secretary and circulated in January 1962. The following sections hence draw mainly on the 1962 Guiding Principles and related OECD documents of that year. Discussions among members of the OECD manpower group within the BMA in response to OECD questionnaires serve as the archival material basis for the evaluation of the German context. Further, I draw on published material of the 1966 DSStG annual meeting. An important essay by BMA labour administrator Galland (1962) is taken as an introduction to the problematic of the employment forecasts in the national labour administration. His piece also reveals the position of an eminent first-generation administrative statistician on the issue of rather abstract numerical estimates.

²⁶³ Council, Manpower Policy as a Means for the Promotion of Economic Growth, 13 April 1964, in: OECD Archive C(64)48. Council, Recommendation of the Council on Manpower Policy as a Means for the Promotion of Economic Growth, adopted by the Council at its 67th meeting on 21st of May 1964, 15 September 1964 in: OECD Archive C(64)48 (Final).

²⁶⁴ See Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), prepared by Albert Delpérée, Bertil Olsson and Seymour L. Wolfbein acting in their personal capacities 25 January 1962, OECD Archive MO(62)1.

²⁶⁵ Albert Delpérée (1912-1984) was demographer and considered one of the founding fathers of the Belgian regime of social security. He acted as the Chairman of the former OEEC Manpower Committee already. Later he would serve for almost 20 years as ‘secrétaire general’ to the Belgian minister of ‘Social Provision’.

²⁶⁶ Bertil Olsson (1912-2002) was director of the Swedish Labour Market Board in 1957-73 and maintained long-standing connections to the OEEC/OECD, acting, for example, as its Swedish representative in 1953.

²⁶⁷ Dr Seymour L. Wolfbein (1915-2001) ‘a statistician with social vision’ (editor’s biographical note in Wolfbein 1964: 27) was Deputy Assistant Secretary of Labor to Labor Secretary Arthur J. Goldberg and Deputy Manpower Administrator for Planning, Research, and Evaluation, Department of Labor (1962-1965), after which he was an economic adviser to the Labor secretary. He would later become dean of the Temple University School of Business Administration (1967-1979). See biographical notes collected by the John F. Kennedy Presidential Library and Museum, under www.jfklibrary.org/.

7.2. Active Manpower Policy as a Governmental Programme

Two months after the OEEC was renamed the OECD on 30 September 1961, the Ministerial Council adopted a resolution setting a collective growth target of 50% in real gross national product for the twenty Member countries during the decade 1961-1970. Apart from the striking manifestation that with this resolution economic growth had become one of the main aims of national policies, growth targets reflect a new attitude towards economic development, namely the belief that economic progress did not have to be an accidental, autonomous historical process but one that could be promoted by deliberate action and planning.²⁶⁸ Academic economists, since the 1950s, had been discussing education and training, as well as research, development and innovation as ‘a third (or fourth) factor’ (OECD 1963a: 7) next to capital, labour (and land) (Teixeira 2000). The invention – to use Thorkil Kristensen’s²⁶⁹ words – that ‘scientific discoveries and their technological exploitation can contribute to economic growth as much as, if not more than, the accepted classical factors of production’ (OECD 1963a: 7) now became institutionalised within the OECD. From within the OECD there were clear voices appealing to government bodies to take over responsibility in implementing science policies aimed at promoting economic growth. The OECD Committee for Scientific Research (CSR hereafter) of the SAD recommended that the OECD Secretariat emphasised in its future programme the economic aspects of scientific research and technology.

Crucially in the present context, education was seen as a vital element of science policy, mainly because ‘it provides the human resources without which technical progress is unthinkable’ (OECD 1963a: 61). The 50% growth target not

²⁶⁸ The planning spirit – the optimism about planning and the turn towards sciences as a growth factor – reached its zenith, as Wagner observes, ‘when it made the social sciences themselves one of its objects’ (Wagner 2003b: 605) with a view to optimise their contribution to policy making. During the 1970s, the OECD issued country reports analysing the state of social sciences to detect deficiencies in what observers criticised as a ‘planification of social sciences’ (Pollak 1976).

²⁶⁹ Thorkil Kristensen (1899-1989) then Secretary General of the OECD, was a professor of economics, business and industry in Denmark, subsequently Member of Parliament, and finance minister, before he left national politics for the OECD in 1960 to become its first Secretary General until 1969. Information taken from the OECD homepage under www.oecd.org. Kristensen wrote the preface to this OECD background report to the first ministerial conference on science policy held in 1963 (OECD 1963a). The background report was primarily written by British economist Christopher Freeman (1921-2010) from the National Institute for Economic and Social Research in London, who at the time already had prepared the very influential OECD methodological manual (the ‘Frascati manual’) aimed at national statisticians for collecting data on R&D (see Godin 2008).

only put the economics of science and the educational research undertaken in its name at centre stage, including the respective government policies that come with it. Simultaneously, I argue, as the flipside of the program of work on the economics of science developed within the OECD, the skills of the labour force ‘on the lower rungs of the ladder’ (OECD 1963a: 61) moved into focus in this governmental configuration. The conception of an active labour market policy predominantly oriented towards scientific and technical progress put to the fore the labouring human being and his or her capacities. Vocational training and facilities for workers to obtain further training in new techniques became new objects of both analysis and governmental policy. As for the OECD, the Manpower and Social Affairs Committee was in charge of work on the adjustment and retraining of the labour force. Endowed with new tasks and new operational activities, the Committee emerged in 1962 from the previous OEEC Manpower Committee.

Different forms of underemployment as particular problems for productivity formed the basis for the considerations on active manpower policy. ‘Employment disturbances’ were to be solved within the framework of an international market, liberated from ‘protective measures’ and ‘inflationary stimuli’ (OECD 1964c: 61), such as income support or state-run job creation schemes.²⁷⁰ Education and vocational training, occupational research and geographic mobility were given primary concern in discussions within the OECD and respective Council recommendations. These factors were to replace direct or indirect subsidies or measures to remedy employment problems in the way of economic growth. In that respect, the overall concerns of both Directorates (Manpower and Social Affairs and Scientific Affairs) were complementary. Both their major aims revolved around the discovery of ‘human investment’: where the former Directorate intended to tackle employment problems (and hence productivity) in terms of ‘sound investment in adaptation’²⁷¹ (for which education and training were crucial), the latter sought to put

²⁷⁰ The so-called ‘Manpower Liberalisation Group’ within the OECD was primarily concerned with the liberalisation of manpower movements in the European Member countries. Council recommendations were developed in accordance with similar attempts by the EEC (e.g. Treaties of Rome signed in March 1957)

²⁷¹ The Statement on the Need for an Active Labour Market Policy, brought to the attention of the Ministerial Council chose a less nuanced formulation: ‘...expenditure for the improvement of human resources and their re-allocation is not a cost to society but a highly profitable investment in adaptation’. See Manpower and Social Affairs Committee. Statement on the Need for an Active Labour Market Policy, 16 November 1962, OECD Archive MO(62)17.

science and technology and education and training in the service of economic growth.

In the OECD background document for a meeting of ministers responsible for science in October 1963 – ‘the first science conference ever held at Ministerial level’ (OECD 1964c: 102) – the authors stated that

‘[w]hen full or almost full employment has been achieved, a rise in output may be expected to depend increasingly on the rise in productivity resulting from scientific research and technological development. We are, however, unable to estimate with any precision the return on investment in research and development, in the form of increased output [...]. But we know enough from historical experience to be able to assert definitely that scientific research and technological development, and the advance in knowledge to which they lead, contribute to economic growth’ (OECD 1963a: 9).

The strategy for that to happen, as shown by Godin (2005; 2008), consisted in the construction of statistical standards within the OECD Directorate for Scientific Affairs by which the economic benefit of research and technology was to be turned into measurable entities and thus made visible across OECD member countries. As far as the standardisation of definitions and methods through the OEEC/OECD is concerned, everything started with measurement of qualified human resources and shortages, since human resources were at the heart of productivity issues. The work of the SAD and the Manpower and Social Affairs Directorate was guided by the lacunae of contemporary statistics: ‘Few member nations had adequate statistics on current manpower supply; fewer still on future manpower requirements. Furthermore, there were no international standards with regard to the statistical procedures required to produce such data’ (OECD 1960: 7).

As did the Directorate of Scientific Affairs, the Manpower Committee aligned itself with the 50% growth target: ‘The increased growth rate can only be attained if manpower is available in sufficient quantities, with the training required for expanding and changing sectors of the economy and fully prepared to cooperate in achieving the required objectives’.²⁷² With regard to the labour market policies and statistical instruments, this directive on the *programmatic* level may be spelled out as follows:

²⁷² See Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), 25 January 1962, OECD Archive MO(62)1, p. 3.

A better use of manpower resources pointed directly to the individual members of the labour force, 'the willing participation of the individual'.²⁷³ In this regard, the respective OECD documents contain a whole series of indirect appeals to the individual broadly following human resource development.²⁷⁴ What had been developed within the OECD Scientific Affairs Committee mainly in relation to scientific and technical skills was supposed to be extended to manpower generally under the auspices of the MSAC.²⁷⁵ The rapidly-changing employment and technical conditions wished for would require 'an *openness of mind* if labour mobility is to be achieved to the satisfaction both of the employers and the individual'.²⁷⁶ Such 'retraining' could only be established, the document continued, 'during the preliminary educational phase of the individual and will necessitate close collaboration between the Ministries of Labour and the education authorities in the various countries'.²⁷⁷ Further, 'career guidance' to young people in terms of information about the world of work was mentioned. Crucially, vocational training and retraining were of central concern in that '[s]hortage of fully trained manpower can seriously hamper economic growth rates unless there is a sustained effort by governments and industry to extend and improve facilities and methods still further'.²⁷⁸ In this respect, 'manpower reserves' such as married women and disabled persons were to be addressed and potentially mobilised under the impact of technical innovation and underemployment.

²⁷³ *ibid.*: 5.

²⁷⁴ During the first session of the Manpower Committee held on 22 and 23 February 1962, where the long-term programme was discussed, the delegates emphasised that the Committee's main role 'should be to see that account was taken of the human aspects of economic growth which should proceed with due respect for the individual and individual freedom'. See Summary Record of the 1st session, 6 April 1962, OECD Archive MO/M(62)1. Here Willard Wirtz (1912-2010), delegate of the USA was quoted. Wirtz was Professor of Law (1946-1954) after he served with the War Labor Board from 1943-45. Later he became Secretary of Labor (1962-1969) in which position he helped to develop President Johnson's 'War on Poverty' programme and policies in 1964 onwards. See obituary in the Washington Post under http://www.washingtonpost.com/wp-dyn/content/article/2010/04/24/AR2010042402358.html?wprss=rss_metro/obituaries. With the first meeting of the Committee the title of the former OEEC Manpower Committee was extended to Manpower and Social Affairs Committee emphasising the fact that, as already expressed in the long-term programme (p.2) manpower problems should also be studied in their social dimensions.

²⁷⁵ Exchange of ideas and viewpoints within the OECD were called for in the long-term programme of the MSAC. For example, 'close collaboration' was mentioned with the Committee for Scientific Personnel, 'which has developed the concept of 'human resource development' and education economics'. See Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), 25 January 1962, OECD Archive MO(62)1, p. 13.

²⁷⁶ See Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), 25 January 1962, OECD Archive MO(62)1, p. 5, emphasis mine.

²⁷⁷ *Ibid.*: 5-6.

²⁷⁸ *Ibid.*: 7

With regard to scientific and statistical instruments, the report requested that ‘more effective systems of forecasting’ be established, which, in combination with economic projections and demographic trends, were supposed to rationalise or help to ‘ensure adaptation and training of the labour force to meet future demands of the economy and changes in structure’. Here, the report suggested that the Committee take a leading role ‘by studying and recommending better methods of establishing labour statistics and forecasting’.²⁷⁹ Simply, statistical early warning systems were to be put in place in order to obtain ‘the earliest possible information’ on economic restructuring so that the consequences for manpower could be dealt with pro-actively. Through long statistical series and their extrapolation ‘the magnitude and timing of the change’²⁸⁰ were to be estimated so that – in concert with labour policies, retraining, and consultations with the trade unions and management – transitions could be handled smoothly ‘well in advance of prospective changes’.²⁸¹ Delegates during the first meeting of the Manpower Committee stressed the importance of employment forecasting for which they suggested an exchange of experience as well as demanded improvements. Only Rudolf Fittges,²⁸² German delegate and vice-chair of the former OEEC Manpower Committee, pointed out ‘difficulties involved in the preparation of such forecasts and scepticism of the German authorities regarding them’.²⁸³ The OECD Division for Social Affairs, for instance, held a seminar on techniques of employment forecasting in June 1962 in Brussels (under the chairmanship of A. Delpérée, the chairman of the MSAC), wherein delegates hoped to draw conclusions. StBA statistician Sperling (see Appendix I) attended the seminar and wrote a conference report for the *Allgemeine Statistische Archiv*, the organ of the DStG (Sperling 1962).²⁸⁴

²⁷⁹ Ibid.: 6

²⁸⁰ Ibid.

²⁸¹ Manpower Committee. The 50% Growth Target. Note by the Secretary-General, 21 February 1962, OECD Archive MO(62)2, p.2.

²⁸² *Ministerialrat* Dr. Rudolf Fittges (nd) then was head of the MSAC sub-committee for liberalisation at the OECD. See note BMA department Ib7 (Dr. Echterhölter), betr.: Künftige Arbeit des OECD und Mitarbeit des Hauses daran in: BAK B149/8092 ‘Zuständigkeitsabgrenzung für Fragen der OECD im BMA’. As Altmann (2004: 111) notes, Fittges was head of the BMA sub-department Ila5 ‘International Labour Market Issues and in this capacity participated in most of the common ILO and OECD-bodies. Altmann also concedes Fittges the role of a ‘contact man’ between BMA, ILO and OECD, whose reception of any recommendation issued by either institution would ‘preconfigure the reception within the BMA’ (Altmann 2004: 128).

²⁸³ See Summary Record of the 1st session, 6 April 1962, OECD Archive MO/M(62)1, p. 7.

²⁸⁴ Section 7.4 below, following the discussion on forecasts in Chapter 3.9, will further scrutinise the nature of employment forecasts as a particular mode of government. Section 7.5 will further trace the dissemination and indeed sceptical reception by German official statisticians.

The call for the ‘social sciences applied to work’ constituted a further central step in this respect. A scientific underpinning of industrial relations with regard to manpower policies was to be legitimised and accompanied by work in the social sciences. Decisions by either managers or workers were to be informed by knowledge either in the form of economic data or acquired by ‘research activity in physiology, psychology and sociology and also through multi-disciplinary and operational research’.²⁸⁵ In terms of institutional arrangements, the improvement of employment services to facilitate labour movement, recruiting and training was given particular priority. The institutional make-up of labour markets had been a concern for both the ILO and the OECD before. A number of ILO Conventions laid down the form which employment services should take.²⁸⁶ From 1952, the OEEC Manpower Committee had been involved in drawing up standards for employment service organisations and the training of employment service staff; some of these endeavours resulted in OEEC Council recommendations.²⁸⁷ Since employment agencies were in place in most of the Western Member countries of the OECD, the organisation of services and institutions and the training of experienced personnel were during the 1960s mostly considered a ‘problem’ of ‘less developed countries’.²⁸⁸ Further, in connection with the issue of institutional arrangements, labour relations were given particular priority within the organisation:

‘Co-operation between the two parties of industry is not only essential as a safeguard against these dangers [the deterioration of social conditions and threat to social peace in the aftermath of economic-technological change] but also as a force for easing the introduction of rapid technological change and of economic growth in general’.²⁸⁹

²⁸⁵ Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), OECD Archive, MO(62)1, p. 9.

²⁸⁶ The second ILO Convention in 1919 was concerned with the establishment of ‘free public employment agencies’ (ILO 1996: 9). Other conventions would follow in 1933 (No.34), in 1944, and especially in 1948 (No. 88), entitled ‘Employment Service’.

²⁸⁷ See for example Council, Draft Recommendation Concerning Standards of Employment Service Organisation, 12 April 1954, in: OECD Archive C(54)99 following the work by the Manpower Committee to examine ‘manpower organisation’ in selected member countries. See Manpower Committee, Report of the two Consultants Appointed to Examine the Manpower Organisation of Certain Member Countries, 26 February 1953, in: OECD Archive MO(53)8.

²⁸⁸ See for instance Manpower Committee. Draft Operational Programme for 1963 (Note by the Secretariat), 14 April 1962, OECD Archive MO(62)5, p. 2.

²⁸⁹ Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), OECD Archive, MO(62)1, p.10.

The trade unions were granted a central role in implementing manpower policies, as the requirement of ‘a massive education task’²⁹⁰ of trade unions made clear.

The programme of an AMP lastly, described the re-enforced link between things and humans, between labour/work, the materials, and the individuals performing them in a particular social space. Most of the discussions display an effort actually to change the environment of work in the context of what Humblet’s summary called ‘space economics’, ‘the distribution or re-distribution of people, social groups, their activities and their places of work’.²⁹¹

During the following months, the Organisations’ efforts mainly consisted in translating the long-term programme into a set of operational activities tailored to the MSAC’s scope of action and to the Organisation’s overall agenda, as well as to the needs of the authorities in member countries. This mainly entailed, during the first six months of 1962, a complex interplay between the Committee,²⁹² the Secretariat, the OECD Executive Committee and other OECD committees, which had also aligned themselves to the new economic growth target. First, during the first Manpower Committee meeting in February 1962, it was agreed that the country examinations, based on the reports drawn up by the countries, and subsequent confrontation of policies hitherto in place within the OEEC should be continued. It was also agreed that the annual review to determine the progress made in particular fields, following the questionnaire issued by the Secretariat, should be kept up. Already during the first Committee meeting, it was decided to carry out three ‘experiments’ in the US, Sweden and Greece – a case selection, which took into consideration respective problems in each of the countries to be highlighted and brought to the attention to other member countries through publication, circulation and collective reviews within the MSAC.²⁹³ Further, an impressive series of technical assistance activities was suggested on behalf of the OECD (now mainly

²⁹⁰ Ibid.

²⁹¹ J. E. Humblet, Summary of the Discussion and Reports at the Seminar, chapter 1: Development of the Concept of an Active Manpower Policy, in: OECD (1964b: 17). Jérôme E. Humblet worked at the ‘Institut Catholique des Hautes Études Commerciales et du Collège Universitaire Européen d’Études Fédéralistes’.

²⁹² The Secretary General only with the report in January 1962 officially strengthened the powers of the Committee to suggest and undertake such ‘operational activities’, see Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), OECD Archive, MO(62)1, p. 2.

²⁹³ With regard to the US situation, the problem of manpower mobility in relation to technical development was to be examined. The case of Sweden was chosen because of the allegedly close integration of labour market policy and economic growth policy. Greece was considered a case en route to development, for which problems of manpower, employment and training were expected.

directed towards the ‘less developed member countries’): seminars, expert studies for the purpose of evaluation, international conferences or ‘round-table’ conferences, expert meetings and study missions. Gottsleben (1968), in an essay introducing OECD Manpower research to the IAB, counted 267 OECD publications related to manpower policy and research between 1959 and 1967.²⁹⁴

The seminars, as self-described by the OECD, ‘have had the double function of disseminating the Committee’s policy views and research results and of providing advice and information for the work of the Committee and the OECD Secretariat’ (OECD 1964c: 71). The double function illustrates quite well how the OECD’s institutional arrangement and working procedures did not (and probably still do not) actually disseminate information on its own terms, but rather institutionalised national expertise within the OECD through reports and conferences written or held under its name. The dissemination of ‘knowledge’ labelled as ‘OECD’ was embedded in the appropriation of national knowledges, embodied in people who had already achieved a status as experts gained through the local educational system, or through higher-level service in national governmental institutions. Such procedures not only marked a two-fold flow of knowledge and expertise, but also of legitimacy.

The OECD committees and divisions were primarily legitimised through the envoy and/or membership of national representatives, which, in turn, were able to increase their credibility towards national institutional settings and colleagues through their OECD representation and/or OECD advisory or expert role. Seminars, as Rehn noted with regard to labour and employers’ relations, helped the MSAC ‘to keep its feet on the ground, and this was essential for it’.²⁹⁵ A seminar for labour and management respectively were particularly important in the present context. The trade union seminar on ‘Active Manpower Policy’ was held in Vienna in September

²⁹⁴ Gottsleben’s annex shows that the majority of these articles and reports were published between 1964-1967 that is, after the adoption and publication of the Council Recommendation ‘Manpower Policy as a Means for the Promotion of Economic Growth’ (Gottsleben 1968). His count does not mention separately OECD periodicals and catalogues, such as the OECD-Observer, a bi-monthly OECD publication since 1962, or the Economic Outlook, a bi-annual report published since July 1967. Also, workshops and conferences for which the OECD did not act as the main sponsor and organiser were not mentioned. In July 1963, for example, the German industrial union (*Industriegewerkschaft Metall*) hosted an international workshop on *Automation und technischer Fortschritt in Deutschland und den USA* under the auspices of the *Amerika Haus* in Frankfurt. The OECD Manpower and Social Affairs Division acted as co-organisers; Solomon Barkin was among the 250 participants. See Friedrichs (1963).

²⁹⁵ Gøsta Rehn during the 67th Council meeting, 21 May 1964, OECD Archives C/M(64)10, p.7.

1963 (OECD 1964a).²⁹⁶ It was the first of its kind to ‘permit an exchange of current experiences and views of management and trade unionists in the Member countries’.²⁹⁷ A parallel seminar for management representatives was held in April 1964 in Brussels (OECD 1964b). The results of the trade union seminar were transmitted to the MSAC for consideration in preparation of the recommendation on Active Manpower Policy, which would be adopted by the Council on 21 May 1964 and published ‘for general distribution’ on 15 September 1964.²⁹⁸ The seminar discussed the measures of manpower policy through several reports and a series of country case studies.²⁹⁹ Franz Lenert, Counsellor of the Austrian Ministry of Social Affairs reported on the proceedings. Overall, these seminars have to be read as one major example of the MSAC’s efforts to support ‘trade union education’.³⁰⁰ As Gøsta Rehn phrased it during the Council meeting in May 1964, results by the MSAC in the field of manpower policy could only be achieved ‘through a complete understanding between the two sides, i.e. management and labour’.³⁰¹ Before we can move on to further scrutinise the statistical nature of employment forecasts, I show that OECD manpower policies, as an international recommendation, made use of methods invented and recommended under the auspices of the ILO during the 1940s war economies.

7.3. Manpower Policies: Continuing Wartime Strategies with Different Means?

In this section, I show that the overall strategy of an active manpower policy as formulated under the umbrella of the OECD, on the level of international recommendations, can already be found in ILO recommendations published during the Second World War. I argue that on the programmatic level, the urgencies of the

²⁹⁶ The 1963 seminar gathered roughly 35 representatives of trade union organisations of OECD Member countries, the ILO, the EEC and the European Coal and Steel Community, of the OECD Committees BIAC and TUAC, and the OECD Social Affairs Division.

²⁹⁷ S. Barkin in his preface to the report (OECD 1964a).

²⁹⁸ See Recommendation of the Council on Manpower Policy as a Means for the Promotion of Economic Growth, 15 September 1964, OECD Archive C(64)48 (Final).

²⁹⁹ The German case was only covered during the Management Seminar in April the following year. Karl Herbst, representative of the German Employers’ Confederation (BDA) within the BAVAV, delivered the report, see OECD (1964b: 7-20).

³⁰⁰ Manpower Committee. Draft Operational Programme for 1963, 14 April 1962, OECD Archive MO(62)5.

³⁰¹ Council, Minutes of the 67th meeting, 21 May 1964, OECD Archive, C/M(64)10, p. 7.

Second World War in both fascist and democratic countries stimulated central ideas of the active manpower policy. War-related emergencies, when budget policies were used to regulate expenditure to minimise inflation and various forms of labour deployment were in place, had great significance for the development of national income measurements and statistical infrastructures more broadly (see Chapter 3.8 with regard to national accounting, and Chapters 3.3 and 4.2 for a discussion of the BAVAV statistical infrastructure). In the present context, the economic role of employment services, the idea of manpower budgets, the facilitation of occupational and geographical mobility of the labour force, the estimation of labour requirements through forecasts, as well as the commitment to full employment were all enshrined in the ‘Employment Service Recommendation’ and in related recommendations that were passed at the twenty-sixth session of the ILO in Philadelphia in April 1944. Such contextualisation further helps to understand the rather sceptical reception of labour forecasts by statistical authorities in post-war West Germany.

The Philadelphia strategy recognised that transitional unemployment was to be avoided by ‘national industrial demobilisation and reconversion to facilitate the rapid and orderly conversion of the economy from wartime to peacetime requirements [...] with a view of attaining full employment with the least possible delay’.³⁰² The ILO commissioned studies both of employment problems to be expected during the transition to peace and of the longer-term problems that could be expected, and policies that would be needed, when the transition was complete (e.g. ILO 1945; ILO 1946). Most importantly, the 1944 recommendations, for the first time, assigned an economic role to employment services. One of the first international conventions prepared by the newly-founded ILO in 1919 called for the Member countries to ‘establish a system of free public employment agencies under the control of a central authority’, following an insurance logic (which by that time had not even been established in some countries, e.g. the German Reich), and the demand for related measures ‘to combat unemployment’ (ILO 1982: 65f.). Vocational guidance and training, and relief work (e.g. public work) had already been invented, but were mostly confined as remedies for the unemployed. Employment exchanges could do nothing to create work, apart from deploying short-

³⁰² All following quotes are taken from the 1944 ILO Employment (Transition from War to Peace) Recommendation as found under www.ilo.org/ilolex.

term relief programmes to control cyclical fluctuations to be forecasted and controlled by 'economic barometers' (see Chapter 3.9). By contrast, the 1944 Public Works (National Planning) Recommendation demanded the co-ordination of public and private enterprises 'to assure the prompt and orderly use of human and material resources'.

The 1948 convention on the 'Organisation of the Employment Service' then envisioned that the employment services would take on an active role in formulating a manpower policy (although the term as such was not used). Not only was the organisation of labour now described in terms of an 'employment market' conceived as an operational field, employment agencies were also used to work toward the labour market's 'best possible organisation [...] for the achievement and maintenance of full employment and the development and use of productive resources' (ILO 1982: 93). ILO Recommendation No. 83 of the same year further mentioned a 'manpower budget' to be drawn up including, 'as part of a general economic survey', detailed material 'concerning the anticipated volume and distribution of the labour supply and demand' (ILO 1982: 99). Moreover, the 1948 Convention mentioned all the issues in connection with labour mobility, for which purpose employment service should facilitate occupational and geographical mobility, and also 'any movement of workers from one country to another' (ILO 1982: 94). Employment services and related authorities were made responsible for assisting in developing training provisions, for helping 'facilitate any necessary mobility of labour' between occupations, and for finding its best possible distribution within each industry and area.

The 'methods of application' proposed for the 'promotion of full employment' were mostly formulated with regard to the 'special action' required during the transition from war to peace, and would, twenty years later and under signs of economic growth, be taken up again by the OECD suggestions on an active manpower policy: An improved 'collection and utilisation of complete and up-to-date' numbers on skills levels, sex distribution, occupational wishes etc.' was mentioned. The discovery of a reservoir of 'labour force', namely 'the number and distribution of older workers, women and juveniles who are likely to withdraw from gainful employment after the war emergency' held direct links to the war economies

and would become a vital prerequisite for an active manpower policy to emerge (see Chapter 3.4.1 for indications of the statistical consequences of that ‘discovery’).

Strikingly, one of the crucial efforts on which an active manpower policy should be based – employment forecasts – was called for in the Philadelphia recommendation: ‘Comprehensive material on prospective labour requirements [...] should be collected and analysed before the end of the war’. Labour requirements were to be estimated and made available to administrative authorities in order to deal with ‘contraction of labour’ in the transition from war to peace, from ‘certain munitions undertakings’ to ‘works of a normal character’. Even the semantic element of a ‘*positive* policy in regard to the location of industry and the diversification of economic activity’,³⁰³ meant to be established in the light of both the war and apprehensions of post-war economic difficulties, resonated with an active labour market policy.³⁰⁴

The role of the 1944 recommendation as a predecessor probably becomes most pertinent with regard to the objective of full employment identified across the range of participants in the OECD seminars in 1963 and 1964 as ‘the principal aim of any manpower policy’.³⁰⁵ Under the impression of war economies, which were capable of mobilising all resources to replace men at the front, and in the face of an expected mass unemployment during the transition from war to peacetime needs, the 1944 recommendation mentioned full employment as the ‘primary objective of the International Labour Organisation’.

Especially trade union representatives during discussions accompanying the adoption of active labour market policies within the OECD were at pains to reconcile manpower policy strategies with basic democratic liberties and democratic rule.

³⁰³ Emphasis mine.

³⁰⁴ Edward Bakke, for example, used ‘positive’ and ‘active’ to describe the manpower policies envisioned by the MSAC to the employers’ representatives in April 1964. See his report in OECD (1964b: 127f.). Edward Wright Bakke (1903-1971) was a sociologist and professor of economics at Yale University. He served the Institute of Human Relations as Director of Unemployment Studies from 1934-39, and was appointed the Sterling Professor of Economics in 1940. From 1944 until the late 1950s he directed Yale’s Labor and Management Center devised with a nine-member policy committee made up of three representatives of Yale, labor and management respectively. Academically, he was best known for his investigations of long-term unemployment in the Great Depression published in 1940. His surviving writings are collected at the Kheel Center for Labor-Management Documentation and Archives, Cornell University Library.

³⁰⁵ F. Lenert in OECD (1964a: 9). See also S. Barkin (OECD 1964a: 46), and H. Beermann (ibid: 143f.)

Hermann Beermann's³⁰⁶ position as rapporteur to the 1963 seminar on behalf of the trade unions was paradigmatic in this regard. His deliberations embraced the idea of full employment (as arguably attained during war emergencies), but were at pains to qualify as democratic the labour market policies in place to attain that goal: 'Full employment in freedom' was the principle to follow for 'free trade unions'. The liberty of the market 'gives to the conception of full employment i.e., full employment of all workers in the jobs of their choice, its real meaning, which satisfies both the rights of man and the dignity of the worker'. In a somewhat strained relationship to the conviction of a conception of full employment 'bound up with that of liberty' stood the appeal to transfer immediate post-war co-operation between government, trade unions and employers' federations into the conditions of civilian economies. Beermann pointed out that such 'co-operation should not, as in the past, be confined to periods of emergency. Programmes should be carefully worked out at times when market conditions are favourable'.³⁰⁷ Whether the 'emergencies' Beermann mentioned, referred to the periods of national emergencies of Western economies during World War II, or to the immediate post-war period, where economic activities were stimulated by reconstruction and financial assistance provided by the US, as well as by a prolongation of economic dirigisme and labour force planning, does not matter for the overall point: full employment was economically desirable but ideologically tainted with the experiences of the war economies and hence potentially unattainable in social and political terms. Accordingly, his report – analogous to the trade union and employers' stance towards the BAVAV employment files (see chapter 4 and 6) – very clearly considered illegitimate direct state action towards the labour market; 'all attempts [...] by the state to direct labour'³⁰⁸ were to be rejected. At the same time, however, legislative responsibility for what a manpower policy should be and how it was best

³⁰⁶ Hermann Beermann (1903-1973) at the time was Vice President of the German Trade Union Federation (DGB), executive of the federal board (*Geschäftsführender Bundesvorstand*) responsible for the DGB social policy department (1956-69), and chairman of the BAVAV executive board (1957-67). He led a rather illustrious German delegation comprising of Walter Henkelmann, workers' representative within the administrative board of the BA and in charge of social and labour market policy at the DGB, Dr. Heinz Markmann (*1926), in 1966 to become executive director of the Economic and Social Research Institute (WSI) at the DGB, and Bruno Paulsen, Member of the Board of the DGB.

³⁰⁷ Hermann Beermann, *The Trade Union Attitude Towards an Active Manpower Policy*, in: OECD (1964a: 144; 153-154).

³⁰⁸ Hermann Beermann, *The Trade Union Attitude Towards an Active Manpower Policy*, in: OECD (1964a: 145).

laid down was a matter for the respective national governments – a stance shared by all participants: ‘In democracies, the parliament and government assume this responsibility. As trade-unionists we do not wish to assume this responsibility. The government has such responsibility and ought to be aware of it. It is a task of the trade unions to be continually pointing out those responsible that certain activities must be expected of governments’.³⁰⁹

The politico-ideological goal of a full employment society had not lost its legitimising function for the international discussions accompanying the active manpower policy. The general governmental instruments with which this goal was to be attained, however, had changed radically. Where totalitarian regimes and war emergencies turned the labour market into an object of compulsion or directive methods, which culminated in the introduction of forced labour, and rigid employment planning, democratic regimes had, if they wanted to hold on to the principle of full employment, rely on different means. Such was the situation the programme of an active manpower policy would find itself in. On a programmatic level, the attempt to hold on to the principle of full employment, on the one hand, needed to be legitimised against the (lived) memories of the totalitarian experiences. On the other hand, a reference to full employment required some kind of qualification, either quantitative or qualitative, for it not to be a mere empty formula, which was easily to be fulfilled by the employment of workers without regard to the type of employment and its condition.

At the risk of over-using the military metaphor, parts of the MSAC, and certainly some conferences and seminars held under the *signum* of an active labour market policy, could be seen as a veteran’s reunion, reconvening the administrators who had managed the wartime economies of the 1940s in their respective countries. The New Deal experiences of some of the personnel gathered at the various meetings might grant this interpretation some purchase. Looking at the leading personnel of the MSAC, for example, reveals that most of them were born in the 1910s, received degrees in economics, and gained their first professional experiences during the

³⁰⁹ Ibid.: 153. In the Conclusions of the Seminar (ibid.: 29/30) it was stated that active manpower programmes ‘should be authorised by and established through the action of legislative bodies, to ensure continuing popular understanding and sanction for these efforts’.

1930s, at times within the institutional structures of economic and social planning in the US created under the emergencies of the post-1929 economic crisis.

For instance, Solomon Barkin,³¹⁰ Deputy to the Director of Manpower and Social Affairs and Head of the Social Affairs Division since 1963, served as Assistant Director on the US Labor Advisory Board of the National Recovery Administration, the institution formed in 1933 to maintain mandatory production and price 'codes' for American industry. Also Edward Bakke, rapporteur at both OECD seminars in 1963 and 1964, held key advisory positions, during his time as the Director of Unemployment Studies at the Yale's Institute of Human Relations, within New Deal institutions, for instance, as the principal consulting social economist for the Social Security Board 1936-39, or as the Chairman of the Appeals Committee of the National War Labor Board.

Others did not hold government position in New Deal institutions, but gained their higher education degrees at American universities during that time. Seymour Wolfbein, for example, attended Brooklyn College during the Depression and earned his doctorate in economics from Columbia University in 1942. From 1943 to 1945, he served with the U.S. Army in France and Germany. For these economists, the objective of an active manpower policy was an occasion to bring a chapter of history that had ended in disappointment to a happier end. In the form of an international recommendation at least, active manpower policies cannot be understood without reference to the 1930s world economic crisis and the idea of a historical second chance.

³¹⁰ Solomon Barkin (1907-2000), Deputy to the Director of Manpower and Social Affairs, Head of Social Affairs Division, OECD. Barkin served for 26 years as director of research at the Textile Worker's Union of America (TWUA), was nominated for several governmental commissions, delegations and advisory boards (e.g. he was on the Labor Advisory Board of the National Recovery Administration). In 1963 he left the US for his post at the OECD to join the faculty of the University of Massachusetts, Amherst, as Professor of Economics and Research Associate of the Labor Center in 1968. See obituary by Buchholz (2000) under <http://www.umass.edu/chronicle/archives/00/04-07/barkin27.html>, and the biographical note of the Five College Archives and Manuscript Collection (University of Massachusetts) where his papers are collected.

7.4. Employment Forecasts as a Mode of Government: The OECD Suggestions

A OECD publication on employment forecasting (OECD 1962) gives some indications as to the imaginary space within which the importance of forecasting for economic policy and, particularly, for manpower policy was developed. The report, in its introduction, drew a ‘traditional’ picture of pre-industrial, agricultural worlds when contractions in production were mostly caused by ‘weather conditions’: Variable weather, so the story unfolded, then caused variations in harvest and might affect the level of production, which, normally was perceived to be ‘constant’ powered by ‘a numerically stable labour force’. The latter was somehow perceived to be exogenous to the naturalised interplay between nature and agricultural production. Things changed when methods of production were revolutionised by scientific progress: ‘this traditional situation was transformed and agriculture was able to produce more with a smaller labour force’.

The plausibility and historical accuracy of this account aside, what is astonishing here is the conclusion by analogy between weather conditions and technical progress. Both were believed to act on the means of production, either by affecting the harvest through hail, sun, or drought, or by making or affecting, mostly in a positive way, the utilisation of new raw material, new machines and new working methods. From the crude equation of weather and scientifico-technical progress derives the need to forecast business cycles, investment, and employment just as to forecast the weather. Both, according to this narrative, had proven to be naturally unstable forces with potentially disastrous effects on the human condition. Moreover, and here lies the problem with the seemingly self-evident truth, technology was naturalised and set apart and above human affairs. Technology here came to be seen as autonomous, having a life of its own which proceeded almost naturally, as did weather. In the attempt to justify modern employment forecasts, the OECD report established a qualitative difference between traditional times, when means of production, exogenous influences, and the labour force, its level of skills and numerical prospects, developed independently from each other (folk weather forecasts aside), and modern times, when an attempt was made to forecast all of

these factors and to chart, as in the present case, an appropriate course for manpower and investment.

The development of employment forecasts has had a firm place on the agenda of OECD activities (e.g. OECD 1962; OECD 1966). The ‘Guiding Principles for a Long-Term Programme’ for the MSAC from January 1962 re-affirmed these concerns. During subsequent seminars for trade unionists and employers, the application of an active manpower policy for economic expansion was supposed to be accompanied by ‘a deeper knowledge of the existing situation and at least an approximate idea of future trends’. Trade union leaders reminded the seminar that ‘the closest attention should be paid to the development of statistical and forecasting methods’.³¹¹ As Beermann, rapporteur to the 1963 seminar on behalf of the trade unions emphasised, the ‘[m]anpower situation should [not only] be thoroughly and carefully watched, [but] measures to control fluctuations in manpower must [also] be taken when it becomes evident that modifications occur’.³¹²

What statistical novelty, then, did an active labour market policy bring about? The programme of an active labour market policy, I argue, inscribed the predictability of manpower trends into general economic and social policy measures. What had hitherto been confined to the employment service or the official statistical offices, that is the extrapolation of statistical series from past series to future trends, was to become a central aspect of a labour market policy hitherto only marginally developed in most countries. As stated in the conclusions of the trade union seminar in October 1963, institutional arrangements should be transformed in such a way that ‘agencies [...] responsible for working out manpower policies [...] should be charged with obtaining necessary statistics, securing reports and making such surveys and studies as will be helpful in formulating immediate, short run and longer term policies and programmes’.³¹³ Labour market policy, thus, was considered the more ‘active’ the more precisely ‘bottlenecks’ in manpower demand or offer could be predicted in particular regions, occupations or industries, and appropriate preventive measures activated. In other words, the speed and quality of manpower ‘adaptation’ to the labour market were to be increased and improved.

³¹¹ Franz Lenert, Report on the Proceedings of the Seminar, in OECD (1964a: 23).

³¹² Herman Beermann, ‘The Trade Union Attitude Towards an Active Manpower Policy’, in (ibid.:145-146).

³¹³ Conclusions of the Seminar in OECD (1964a: 29).

‘[D]evelopments are not to be left to chance, as has sometimes been the case hitherto’³¹⁴, as Beermann demanded. Chance, to take up Beerman’s terminology, was to be eliminated with regard to either full employment, the size of training programmes for specific occupations in relation to prospective manpower requirements, and the vocational training of young people in comparison to prospective evolutions of professions. All these cases require long-term estimates for which the only base could be ‘accurate employment forecasts’. Thus, statistical data on the number of unemployed, of vacant jobs or the number of jobs filled by employment services were not sufficient any more for the new manpower policies, designed for the entire population. In this context, Beerman even considered the unemployment figure not ‘a reliable basis for deciding whether or not there is full employment’.³¹⁵

7.5. The Statistical Experts’ Response: Organisational and Methodological Objections

In contrast to economic forecasts, labour forecasts were a more recent technology for German labour statistical experts and economic planners. The StBA – in order to meet legal requirements and international recommendations – conducted short-term labour forecasts for the first time in 1959. But only by 1962 did the German labour administration consider the idea of comprehensive labour market forecasting, and it did so, arguably, through connections with OECD MSAC, where national experts on that technology gathered. Rudolf Fittges as the German representative to the MSAC, in May 1962, asked members of the OECD working group on manpower for opinions on the matter.³¹⁶ His letter referred to both the OECD ‘guiding principles for a long-term programme’ and the ‘50% growth target’, so that labour forecasts were only mentioned in the context of the entire new OECD manpower programme under the directive of economic growth. Accordingly, the responses by the DGB, the

³¹⁴Herman Beerman, ‘The Trade Union Attitude Towards an Active Manpower Policy’, in (ibid.: 146).

³¹⁵ Ibid.: 147.

³¹⁶ The working group was established in 1950 within BMA department II and was constituted by representatives of labour and management, of ministries, the BAVAV, the StBA, and of the RKW: See Rudolph Fittges on the discussion of the OECD annual program for 1965 from 22 December 1964, in: BAK B149/14050.

BDA, the StBA, and the BAVAV stated the general stance of each towards an active manpower policy – information the OECD itself would seek in a separate, more detailed questionnaire to its member countries in January and April 1965. Interestingly, by the time Fittges sent out his letters, the MSAC long-term programme had already been adopted by the Manpower Committee during its first session in February 1962³¹⁷ and, subsequently submitted to the Council in March³¹⁸ so that substantial alterations to the programme on behalf of the German authorities were technically foreclosed.

Despite the awkward situation, the StBA in the person of Siegfried Koller (see Appendix I) commented extensively on the MSAC work programme. He welcomed the fact that manpower questions within the newly-founded MSAC were now also treated from a social perspective. He even suggested incorporating further issues into the amplified agenda of the committee, such as issues of health and medical care, absenteeism due to illness, or the relation between manpower resources and early disablement.³¹⁹ Speaking in his capacity as a trained statistician, however, Koller was much more hesitant towards the possibilities of long-term labour forecasts as envisioned by the labour administrators and economists within the MSAC. He attempted to defer work that might arise from the official labour forecasts as these related to areas of StBA competence: existing statistical material should be checked for its liability to meet the new requirements to cast a long-term gaze upon future manpower requirements across all occupational groups. StBA president Fürst, in a letter to the BMA regarding the 1964 budget proposal, re-emphasised this point by referring to the great amount of work which labour forecasts required: ‘all components of the recruitment situation, the biological evolution of the population, migration, participation in gainful activities and much else’ were to be taken into consideration – demands well beyond the capacity of the personnel available at the

³¹⁷ See Manpower Committee, Summary Record of the 1st session held in 22 and 23 February 1962, in: OECD Archive, MO/M(62)1, p. 10.

³¹⁸ See Council, Long-Term Programme of the Manpower Committee, 6 March 1962, in: OECD Archive C(62)36.

³¹⁹ StBA, department VIII Siegfried Koller to BMA, betr. OECD Ausschuß für Arbeitskräfte, 18 May 1962, in: BAK B149/8067.

StBA labour force statistics department, at least, if forecasts were to be conducted ‘continually and by the desirable application of refined methods’.³²⁰

The statistical time lag between gathering data on a national scale and interpretation was to be taken into consideration. Results on the structure of the working population from the 1961 population and occupational census were not to be expected before 1963, potentially too long for economic researchers and forecasters, but epitomising the ‘exactitude’ of data gathering and interpretation which characterised the official statisticians’ work ethos. The strongest objections by the StBA, however, were methodological: mid-term labour forecasts on the supply-side of manpower were indeed undertaken within the StBA. These calculations were in fact part of ‘statistics of population movement’ (*Statistiken der Bevölkerungsbewegung*), part and parcel of the Reich’s Statistical Office since its earliest years (Hüttner 1972: 175f.). The conditions for estimation of the manpower supply on the basis of such demographic factors were much more favourable than those for prognosis of manpower requirements, as Koller emphasised, since the latter depended on highly variable technological and economic factors. Even if forecasts were broken down by economic branches and the necessary statistical data were provided, the relation between production volume and manpower requirements could never be assumed to be equally distributed among all firms of a particular economic branch. Manpower requirements of a particular industry also depended on the ‘structure’ of an economic branch, which, as the official statistician knew better than than the forecaster, depended on particular definitions of not only the economic branch itself, but also of gender and occupational position (*Stellung im Beruf*).

In a meeting between BMA and BAVAV labour statisticians and StBA statistical experts in February 1959, Koller hinted at a further unexpected difficulty confronting economic statisticians as they interpreted the results of the first MZ in 1957. The data interpretation brought to light the fact that ‘the notion of ‘gainful activity’ was more complex than hitherto believed even for the large population and occupational censuses. Hence ‘labour force potential’ cannot be considered a precise figure’. Quantification (*Umfang*) of these notions, as statisticians increasingly became aware, depended not only on their consistent definition and logical

³²⁰ StBA, the President Gerhard Fürst to the Ministry of Labour and Social Order, betr.: Haushaltsvorschlag 1964, 26 April 1963, in: BAK B149/8598.

classification, but also on the interview situation itself: partly on ‘the question posed, partly on the answers given’.³²¹ As noted, the sixth meeting of the Statistical Advisory Council in May 1959 attended to the problem of variable notions of ‘gainful activity’ across the German labour statistical system (see Chapter 4.7).³²² In this respect, Galland’s (1962) critical elaborations reveal even more the immense complexity which was intrinsic to the establishment of labour forecasts.

7.6. Social Statisticians: Numerical Estimates vs. Factual Logic

This section takes up those matters identified in Chapters 3.5.4 and 5.3.1 where I outlined the empiricist style of reasoning in German social statistics. Other than mathematical statisticians, a social statistical logic was factual, bound to delineate the statistical object in the empirical world. Galland, social statistician by training and leading figure during the discussions on the BAVAV employment files (see Chapters 4 and 6), embarked on a semantic analysis of manpower requirement (*Kräftebedarf*) in order to determine its specificity in comparison to other human needs and economic demands. For the social statistician, the real puzzle was that manpower requirements were ‘something non-existent, absent, which defies a numerical depiction even more’ (Galland 1962: 933). A reliable measurement of manpower requirements, ‘the call for numbers’, as *the* pre-requisite of practical policy measures, thus faced increased difficulties. The role of statistics as a neutral and objective ‘arbiter’ (Galland 1962: 933) of controversies was at risk of being drawn into the messy field of bold estimates and political opinion.

There was, however, a further issue involved: the nature of the legal and administrative requirements necessary for labour statistical activity. Under contemporary legal circumstances, links between local labour offices and both employees and employers – the pre-requisite for data gathering – were rather weak. Labour statisticians, as Galland emphasised, had no means at hand ‘to make visible

³²¹ BMA, Ib3 (Galland), Bericht über eine Besprechung im Statistischen Bundesamt on 26 February 1959, in: BAK B149/863.

³²² See Protokoll über die 6. Tagung des Statistischen Beirats, 5 and 6 May 1959, in: BAK B128/3756.

what is ‘invisible’ and *prefers* to stay so’ (Galland 1962: 933, emphasis mine).³²³ Other than during times of administrative omnipotence and economic dirigisme the relationship between employers and employees and local labour offices was mainly based on the willingness to cooperate. Mutual trust was at the heart of labour offices’ work. Employees could neither be forced to sign up nor compelled to disclose to the interviewer their current state of work. Similarly, employers were not to be compelled to notify labour offices of vacant jobs, despite the fact that the data basis for statistical enumerations was the better, the stronger these links between administration and labour market activities were.

Galland, however, revealed that the promise fuelled by the exceptional concentration of forces, energies and political attention for statistical productions during the German war economy indeed remained technocratic dreams far from any statistical perfection (however these might be defined). The ‘compulsory use’ (*Benutzungszwang*) of labour offices for employers and employees did not lead to the expected statistical results. Even where administrative force and rigid economic planning during the war *Arbeitskräftebewirtschaftung* guaranteed the elimination of deficits in the ‘goodwill of all involved parties’, the registration measures and statistical surveys remained faulty. The reason, for Galland was ‘that a market can emerge anywhere and nowhere and not only where it is supposed to be monopolised and concentrated. Because ‘demand’ emerges, disappears and constantly regenerates’ (Galland 1962: 933).³²⁴

From these practical and legal-administrative considerations with regard to the invisible existent, follows the labour statistician’s scepticism towards the invisible nonexistent. Galland’s essay reveals that social statisticians had to account for the characteristics of their objects in the empirical world. With regard to the factual logic of German social statistics (see Chapter 3.5.4), nothing seemed more at odds with their accustomed methods than forecasting something that is not there. As

³²³ Galland (1962: 933, emphasis mine): ‘Hinzu kommt ferner, dass die Statistik das, was ‘unsichtbar’ ist und bleiben will, nicht sichtbar machen kann’ (entire quote).

³²⁴ Adolf Hausin, then head of the AA Lörrach, reported a similar disappointment with regard to the employment files. If the employment files – re-established in 1947 – had not been, as he confessed on the occasion of their disruption in 1964, ‘in the best condition’ (*im besten Zustand*), the labour card index introduced in 1935 was not either: ‘Anyone who was employed at a labour office at the beginning of the last war knows how much the file let us down in securing the labour force necessary for the war’ (Hausin 1964: 196). See Chapter 3.6 for further remarks on the phantasies and realities of the Nazi statistical activities and Tooze (2001: 248f.) who arrives at a similar evaluation of the Nazi economic statistics and industrial reporting during the war.

Galland emphasised (the discussion of Nicolas in Chapter 5.3 resonates here). In order to ‘quantify [manpower requirements] one is obliged to render it comprehensible as a notion’ (Galland 1962: 933). As long as the definition both of *Kräftebedarf* (within the national economic theory) and its characteristics (defined by standards of occupation and classifications of economic branches) remained unclear, and enforced data disclosure was foreclosed politically, one is obliged to ask ‘what the practical benefit is of manpower requirement calculations which to a certain degree travelled in empty space’ (Galland 1962: 940). At the same time, Galland did not rule out the possibility of defining *Kräftebedarf* in such a manner that – at some point in the future – a realistic calculation might be undertaken. Precisely as a ‘creative metaphysician’ (Daston 2000: 36) Galland understood his conceptual elaborations as a necessary step towards such statistical measurement.

The labour statisticians’ stance seemed to show a greater awareness of deficiencies with which official figures were necessarily marked since they were based on classificatory systems and definitions affected by constant real-world change. For instance, where the OECD long-term program boldly demanded the development of techniques and methods relating to occupational information in order to bring governmental responsibilities in line with technological and economic change,³²⁵ the groundwork done by labour statisticians brought to light the transitional stage in which the German occupational classificatory system found itself. Since the late 1950s, statisticians in the StBA, the BAVAV and in the BMA were involved in revising the description of economic activities to be subsequently classified as professions following the May 1957 International Standard Classification of Occupations (ISCO) on behalf of ILO labour statisticians. This enormous task of standardisation had been viewed as a practical pre-requisite for labour administration since the 1920s. The BMA recognised its importance – partly following international recommendations and legal requirements to report – and after a preliminary alphabetical index of occupational titles (*Verzeichnis der Berufsbenennungen*) was issued in August 1961, it pressed ahead with the

³²⁵ Manpower Committee. Guiding Principles for a Long-Term Programme (Note by the Secretariat), prepared by Albert Delpérée, Bertil Olsson and Seymour L. Wolfbein 25 January 1962, OECD Archive MO(62)1, p. 6.

establishment of a separate department.³²⁶ The revision of the German occupational classification proved, thus, that the information required for forecasting purposes was indispensable but at the same time ‘insufficient’.³²⁷ Further, as Galland (1962: 639) warned, such classificatory systems had to be of practical value; occupational classifications must not be fanned out in excessive detail. Occupational titles had to be ‘sufficient’ to be indicative of ‘which skills and knowledges were subsumed under the same occupational title [otherwise] one cannot be sure whether or not ‘blacksmiths’ represent an agglomeration of iron-, tin-, copper- and goldsmiths’ (Galland 1962: 939). This remark illustrates well that any statistical measurement (counting) depends on the construction (coding) of unitary elements purged of unnecessary ‘noise’, but sufficiently detailed.

The labour statistician’s gaze emanating from practical considerations and the routines of administrative minutiae relativised the planning dreams of forecasters and applied economists. For labour administrators within the BAVAV and the BMA, manpower requirements were only to be implemented ‘from below’ as a combined enumeration of single notifications which take into account information on both economic branch and profession. At the same time, the inherent indeterminacy of both was a problem to which statisticians were not afraid to expose themselves. Global figures ‘from above’ by way of a manpower budget were, in their view, entirely unsuitable. Not only did the analogy between material goods and manpower misrecognise the distinct nature of the latter as a heterogeneous entity. As Galland (1962: 940) remarked unambiguously: ‘a global figure (sum) is useless [...] for the practical task of meeting manpower requirements because it is not labour forces as such that are needed but rural workers, masons, fitters, domestic helps and so forth’. Also, even if human kinds and their variable activities and choices were standardised, this could only happen with reference to the *occupation* itself, by gathering information on the experiences in a profession (*Berufsbeschreibungen*) or by referring to the official titles and qualifications (diploma, apprenticeships etc.). Any attempt to norm differences in skills and profession by focusing on the *professional* i.e., the individual – as attempted during the Third Reich’s

³²⁶ Referat IIa6 ‘Berufsklassifizierung, Berufssystematik’, Referatsleiter Rudolf Schmidt, see BAK B149/8598 ‘Entstehung des Referats Berufsklassifizierung’.

³²⁷ StBA, department VIII (Siegfried Koller) to BMA, betr. OECD Ausschuß für Arbeitskräfte, 18 May 1962, in: BAK B149/8067.

Arbeitskräftebewirtschaftung with the help of the labour identity card – would interfere with economic and personal freedom and had become indefensible in the Federal Republic. Such standardisation of occupations was only envisaged since the late 1950s on the national and international level, but, by the early 1960s was far from satisfactory completion (Sperling 1961a; Sperling 1961b).

Aggregate figures as used by national accounts were inappropriate. Labour market development should not be inferred from assumptions about GDP development since, as Koller remarked in 1962, neither future supply nor demand in manpower necessarily correlated with economic production or with output as a major component of GDP. A doubling of production, for instance, did not necessarily presuppose a doubling of manpower. Labour or manpower calculations were eventually bound to social specificities that arose in connection with the underlying ultimate factor of human beings, their professional training, or vocational skills, and their distribution in economic space (plant, bureau). Manpower demands, as Galland (1962) already noted, could hardly be calculated and met in the same way as ‘the need of winter potatoes for a middle-sized town’ (Galland 1962: 933).

7.7. From Humans to Things: On the Nature of Statistics of Job Vacancies

As noted earlier, official labour statisticians were uneasy about measuring the inexistent; an enumeration of non-existent subjects for them was a contradiction in terms. Labour administrators, however, found a way around this problem by establishing statistics of job vacancies (*Statistik der offenen Stellen*). Instead of counting the missing (or required) subjects, the vacant positions (as far as they were known) were set as the object to be known. Such ‘objectification’ (replacing humans with things as the basic entity) can be read as an attempt to emulate the notions already in place within national accounts and economic forecasting where material goods were calculated (Suzuki 2003a; b). Statistics of job vacancies at a certain reference date counted and represented the processing stage of placement orders conferred to local labour offices by businesses. The BAVAV instructions to the statistics of job vacancies defined the notion as follows: ‘Job vacancies are

considered those work places of employees and homeworkers not mentioned by name reported to the labour office for placement within the federal territory, including West-Berlin no matter whether these work places should be filled with Germans or non-Germans' (taken from Redlich 1967: 207).

Contemporary labour statisticians, however, debated the diagnostic value of job vacancies (Ferber 1966; Redlich 1967; Kühl 1970). Most were sceptical about whether or not these figures on required manpower actually allowed any assumptions on prospective vacancies for a defined future time span. Administrative practices, as a vital underpinning to these statistics, again interfered with the data gathering processes. Work places were calculated *after* they had become vacant and only in so far as labour offices were officially notified of them. Employers were not obliged to channel their manpower requirements through local AÄ, with the effect that labour exchange partly took place beyond the reach of the official statistical capture via job advertisements in papers and the like.

Siebrecht (1959), head of the LAÄ South Bavaria, offered the most pronounced criticism towards figures of job vacancies. For Siebrecht, these figures 'should be interpreted with caution only', even if, as he conceded they might 'well say something about the tendency of demand'. Their general diagnostic value, however, was rather poor, especially if not differentiated by professional groups. They also prove, Siebrecht continued, 'that the labour market balance depends on many qualitative and other preconditions and does not take place schematically-quantitatively' (Siebrecht 1959: 111). Following a qualitative labour market theory, as, for example presented by Willeke (1937), for Siebrecht the thing-like nature of the object of measurement was conducive to a quantitative language, but essentially foreclosed the qualification by human characteristics, such as gender, profession, level of skills and even personal experiences, and circumstances.

Such practical problems notwithstanding, job vacancies, as Redlich (1967: 209) remarked, were counted statistically no matter whether the labour office was informed about whether or not the post was still vacant. Officially, a monthly 'stock control' (*Bestandskontrolle*) of the files, as laid down in the 'Guidance for Employment Placement' (*Richtlinien für die Arbeitsvermittlung*) were supposed to remedy such problems of administrative action and statistical timing. Practically,

however, the accuracy of the controls depended on the personal investment of each file worker. Local labour offices' statistical services were hardly capable of monitoring whether or not businesses were called up to check on the orders booked (Redlich 1967: 209). Fundamentally, the official 'manpower requirement figure' (*Kräftebedarfszahl*), as issued by the BAVAV on a monthly basis, did not represent the vacant proportion of manpower requirements as such, as Galland (1962: 934) noted, but only of the 'visible demand', that is, job vacancies registered within the local labour offices on the basis of standardised placement orders on behalf of employers. These figures were presented in a way which combined the economic branches of the employer (e.g. plant) with the profession of the required employees.³²⁸ Since 1962, the BAVAV published figures were broken down by gender and some occupational groups only (Redlich 1967).

7.8. Monopolising Knowledges and Practices, Protecting Officiality: Boundary-Drawing in Statistics and Forecasts

In January 1964, Jakob Käfferbitz, head of BMA department II,³²⁹ sought information in preparation for his reply to a further questionnaire of the MSAC. The questionnaire interrogated member countries about the state of the art of labour forecasts and any potential technical problems respective authorities might have encountered.³³⁰ The questionnaire was issued in the context of the 1964 MSAC operational programme which suggested, among other things, enlarging upon methods of employment forecasting. Following the Brussels seminar on forecasting techniques in June 1962, the Committee wished to continue the work on forecasts³³¹ by convening an expert meeting in 1964.³³² StBA president Fürst replied on behalf of the StBA expressing even greater scepticism towards long-term forecasts than Koller

³²⁸ See, for example, ANBA (1962), Nr. 7, S. 352f.

³²⁹ Department II was entitled Labour Market Policy, Unemployment Insurance, Vocational Training (*Arbeitsmarktpolitik, Arbeitslosenversicherung, Berufliche Bildung*), see Rind and Seifert (1968: 25f.).

³³⁰ Questionnaire contained in BAK B149/8065.

³³¹ See MSAC, Programme of Activities and Budget Estimates for 1964, 21 August 1963, in: OECD Archive MO(63)22 (1st revision), p. 46.

³³² The meeting of experts was held between 28 and 30 of October 1964 and published in 1966 by the OECD and its rapporteur Bernard Grais from the INSEE in Paris: see OECD (1966). Hans Sperling, *Oberregierungsrat* at the StBA and van Randeborgh, *Oberregierungsrat* at the BMA participated

a few years ago. More directly than Koller – who had left the StBA by that time – Fürst assured the BMA that ‘for a classification by economic branches appropriate material is unavailable’. Fürst confirmed that forecasts of manpower requirements had not been conducted within the StBA and there were no plans to do so since the labour statistics department was ‘neither personnel-wise nor budgetarily geared to these assignments’, this in spite of the fact that other national statistical systems, notably in Sweden, France and the Netherlands dedicated great attention to methodical pre-conditions of long-term forecasts.³³³

On this occasion, other members of the BMA working group raised their hands. The Federation of German Industries (BDI) had ‘strong concerns regarding the utility of such forecasts’. The main problem was, so went the response, that on the one hand the reliability of prognosis was not ‘sufficiently guaranteed’ in order to justify any political action. On the other hand, the BDI considered forecasts which were not to be used for political ends of ‘negligible practical relevance’.³³⁴ Since within the BDI manpower forecasts had not been dealt with, it even refrained from any detailed response to the questionnaire. The Confederation of German Employers’ Associations (BDA) considered labour forecasts in market economies ‘absolutely impossible’ (*absolut unmöglich*)³³⁵ and prophesied their end even before they were implemented, unless the economy was to be placed under the direction of state planning. The BMWi, with reference to the lack of any experience with regard to the ‘probability of such prospective calculations coming true’ (*Eintreffwahrscheinlichkeit solcher Vorausberechnungen*)³³⁶ pronounced similar scepticism, even although the ministry participated in global estimates of employment as part of that development deemed necessary for economic policy coordination or budgeting. In that regard, the ministry was in line with a WiBR statement from November 1963 which advocated forecasting mid-term economic development (four to six years), but warned against the temptation to calculate and forecast the entire national product by economic branches.

³³³ StBA, der Präsident, an das Bundesministerium für Arbeit und Sozialordnung, betr.: OECD Ausschuß für Arbeitskräfte; hier: Jahresprogramm 1964, 27 January 1964, in: BAK B149/8065.

³³⁴ Bundesverband der Deutschen Industrie, Abteilung Sozialwirtschaft und Industrieforschung to the BMA (Dr. Käßlerbitz), 22 January 1964, in: BAK B149/8065.

³³⁵ Bundesvereinigung der Deutschen Arbeitgeberverbände (Rolf Weber) an Herrn Ministerialrat Fittges, 22 January 1964, in: BAK B149/8065.

³³⁶ Bundesministerium für Wirtschaft (Dr. Coester) to BMA, 31 January 1964, in: B149/8065.

The BAVAV appears to have been equally sceptical about long-term projections, in particular with regard to future manpower requirements, which were deemed practically and methodically unfeasible at that time. What the WiBR suggested for national economic development the BAVAV wished for the labour market. Mid-term labour forecasts were in principle considered a necessary prerequisite for sectoral structural policy, budgeting and business cycle policy. The statistical data, however, should be based on employment figures as only the labour administration could provide them: divided by economic branch and region to the lowest level possible.³³⁷ This postulation was certainly in conflict with the actual state in which the BAVAV labour statistics found themselves. As the discussions on the G-statistics show, by the time this letter was drafted, the decision had been taken in favour of a representative sample which precisely put at risk the availability of local data.

The 1966 DStG annual meeting with the title of ‘statistics and forecasts’ (*Statistik und Vorausschätzung*) brought together official statisticians and economic forecasters and hence serves as a suitable case through which to further scrutinise their conflictual relationship in terms of intellectual attitude and methodological thinking. At that meeting both labour and economic forecasts were discussed. During the 1966 DStG meeting, Hildegard Bartels advocated a strict division of labour between forecasting and official statistics – and this not only in order to relieve the already overburdened official statistical apparatus from work-intensive economic forecasts. Crucially, she cautioned against official statistics getting entangled with any kind of ‘analysis’, which – as evaluation of facts – was equivalent to ‘economic policy statements’ (*Stellungnahme zur Wirtschaftspolitik*; DStG 1967: 98). The statistical gaze – ‘for psychological reasons alone’ (*schon aus psychologischen Gründen*) – was not to be burdened with such subjective evaluations usually undertaken by economic forecasters or state institutions. The potential political character of economic forecasts – embedded in measures developed and taken by state economic policies – threatened the self-imposed ‘neutrality’ of official statisticians, for the purpose of which an institutional distance had to be maintained.

³³⁷ See BAVAV, der Präsident to the BMA, betr.: OECD-Ausschuß für Arbeitskräfte, Jahresprogramm 1964, 27 January 1964, in: BAK B149/8065.

The delineation of ‘official’ knowledge was at stake. On the one hand, economic researchers and forecasters to a great measure relied on official statistical data. This, from the official statisticians’ point of view, was unproblematic since there was technically no interference with the ways these data were gathered or produced. The question of data used *after* it had been officially produced did not contest the division of labour between data production and interpretation in line with the official statistical ideal of neutrality. Further, the status of data as ‘official’ was an asset to the credibility of the econometrician’s models and forecasts, a fact clearly recognised by practitioners during the DStG meeting (cf. DStG 1967: 45f.).³³⁸

The problem arose, however, at the point where economists and forecasters

‘moreover used any non-official statistics at hand, results from trend surveys, information about economic and technical conditions, as well as about reasons and intentions gathered from publications, conversations and from cooperation with all those who have responsibilities for economic life, and, last but not least, where information is gathered on the latest theoretical insights into factors determining the economy as well as into the causal relations of it’ (Bartels 1967a: 65).

From within official statistical practice, such information – numerical or not – defined the vast ‘outside’ of doubtful if not illegitimate forms of knowledge held together by precisely their tendency to exacerbate personal interest and prejudice rather than contain and control it. For Bartels, these forms of knowledge grounded in private and personal experience were to be met with caution by statisticians, if not altogether excluded from their space of normal scientific activity. Fürst, similarly cautious, doubted whether economic forecasts were about anything more than ‘beliefs or imaginings about technical and political development and hence had to do with assumptions which could not be deduced from statistics’ (DStG 1967: 92).

The strategy Bartels pursued was to demarcate different spaces for the two activities, each governed by different scientific ideals, work ethos and scientific practices. Bartels was not so frank as to say the data used by forecasters was political and hence unreliable or even false. Nor did she label economic forecasting a non-science, mere prophecy or magic. As noted (Chapter 3.8.2) Bartels was the pre-

³³⁸ The problem here, from the practitioner’s point of view was rather that official statistical techniques (the ‘lagging questionnaire’ (*nachhinkende Fragebogen*), DStG 1967: 94) by definition were concerned with retrospective data gathering. Official data i.e. those data consecrated by federal law was not readily available for economic forecasts in the state they wished for.

eminent figure in the establishment of post-war German national accounting and thus familiar with the problem of filling in accounts with scarce data drawn from various sources.³³⁹ The StBA was involved in economic forecasts and had been establishing demographic forecasts since the late nineteenth century (see section 3.8.3). But, acknowledging that both parties had to deal with deficient figures she reserved the more humble, exact and hence ‘objective’ handling of this problem for her own guild, the official statisticians, hence denying them admittance to the world of empirical economic researchers and government economists. It was not advisable, Bartels warned, for official statistics to ‘enter all too far into the analysis and forecasts of national economic accounts’ (Bartels 1967a: 66). Only some of these techniques and forms of knowledge used by applied economists and forecasters were part and parcel of the statistician’s ‘tools of the trade’, most of it ‘was marginal to his work’ (Bartels 1967a: 65). The statistical techniques used by forecasters and econometricians – regression analysis, cross-section analysis (*Querschnittsanalyse*) or the development of econometric models on the basis of mathematical equations – were at odds with the usual ‘data gathering and its representation for general purposes’ (DStG 1967: 92).

Both scientific spaces shared a common outside: politics and governmental institutions. Applied economic researchers as well as official statisticians sought to draw their scientific spaces near, but not too close to politics. The latter had the far greater concerns for potential spillover of politics into the realms of statistical neutrality. Objectivity and neutrality, as Fürst, then StBA president, asserted for the post-war German official statistics, were ‘a prime principle’ (*oberstes Gesetz*; Fürst 1949: 436). Modern economists drew part of their legitimation from the use of their models and suggestions in government deliberations and thus preferred to maintain a more modest distance to governmental institutions. For Bartels, economic forecasts even depended essentially on the economic policy objectives in which they were embedded – inconceivable for official statisticians believed to be exclusively entrusted with ‘the neutral and objective registration of economic and social facts’

³³⁹ As Bartels noted at the beginning of her contribution, however, national accounting (*volkswirtschaftliche Gesamtrechnung*) is not to be confounded with national economic forecasts (*volkswirtschaftliche Vorausschätzung*) the crucial difference between the two being that the former was designed to measure past periods and thus served, to a certain extent as basis for any economic trend extrapolations to be undertaken within the framework of the latter.

(Bartels 1967a: 56). Mathematical experimentation or estimates enmeshed with political considerations were out of bounds for statistical self-understanding. Fürst seconded the notion that the statistician

‘be wary of imposing data on his own decisions which were political by their nature, in other words, he should in the absence of a political mandate not replace absent [sic!] political ideals and goals with his own ideas’ [...] Official figures by all means were to be kept sterile from the ‘misleading and dangerous [...] political figure’ (DStG 1967: 98).

Fürst, equally sceptical about the methodological foundations of economic forecasts, was generally more receptive to the idea that the strict opposition between economic forecasting and statistics would become more permeable in the near future. More strongly than Bartels, he embraced the general tenor of the annual meeting that ‘forecasts are a must – this is a belief commonly held in the economic world; their improvement is the task of each and everyone’ (DStG 1967: 94). Probably due to his work as an independent expert on the ‘Expert group on mid-term Economic Perspectives’ (*Sachverständigengruppe für mittelfristige Perspektiven*) established by the EEC commission 1964-66 (Bartels 1967b: 163), he took the view that ‘an economic statistician to a great extent should also be an economic theoretician’ (DStG 1967: 101). Fürst, after retirement from the StBA presidency in 1964 thus partly denounced the statistician’s abstention over collaboration in forecasting projects. What had become part and parcel of economic policies should not be left to forecasters and applied economists alone, otherwise the statistician was condemned, as Fürst noted to an unknown colleague, to watch ‘how the planning office violated our beautiful numbers’ (DStG 1967: 101).

7.9. Conclusion

This chapter examined the emergence of employment forecasts and their hesitant reception by German statistical experts during the 1960s. It has shown that employment forecasts were an essential component of the programme of an active manpower policy disseminated, among others, under the auspices of the OECD from

the early 1960s in the context of ‘planned’ economic growth. Active manpower policies were contextualised in two different albeit mutually inclusive ways.

First, the argument followed Godin (2005; 2008) who has shown how initiatives within the OECD Committee for Scientific Research attempted to make research and technology amenable to economic benefit. Active manpower policies within the MSAC, I argued, were closely related to these efforts in that both were concerned with the qualification and training of human resources. Where the former considered education and training a vital element of science policy, the latter dealt with manpower questions more broadly with regard to problems of education, occupational counselling, vocational training, the social adaptation of workers to new conditions, labour-management relations, and the movement of manpower across national borders.

Second, this chapter argued that various elements of the OECD active manpower policies as outlined in the 1962 Guiding Principles of a Long-Term Programme were enshrined in ILO recommendations passed in 1944: the economic role of employment services, the idea of manpower budgets, the facilitation of occupational and geographical mobility of the labour force, the estimation of labour requirements through forecasts, as well as the commitment to full employment had been developed and recommended in the 1944 Philadelphia strategy. As this chapter suggested, the essential ideas of an active manpower policy should be analysed in the context of a continuation of wartime strategies with different means. At least with regard to international policy recommendations, central notions for a post-war economic government of labour were first formulated in the face of the world economic crisis and the post-war demobilisation efforts. The broader argument contained followed Schivelbusch (2007) and Patel (2005) who highlighted ‘distant kinship’ between US and German employment and economic policies during the 1930s in the attempt to overcome mass unemployment and economic crisis.

This chapter explored the dissemination of labour forecasts in the West German statistical infrastructure. Economic experts within the OECD were particularly keen to have these forecasts established in national contexts as a particular mode of aligning expected future manpower requirements to economic developments by profession, skill and spatial distribution. The German statistical

authorities were, as was shown, rather sceptical about these instruments. Whereas employers' federations feared their economic planning character as reminiscent of the war economies, official statisticians drew various boundaries between themselves and the new generation of econometricians and forecasters, defending their methods, the statistical gaze of objectivity and neutrality, and their work organisation.

As this chapter argued with reference to the example of Galland, the factual, empiricist reasoning of social statisticians made it difficult for them to engage with the measurement of future manpower requirements, the 'invisible nonexistent' based on mere numerical estimates. The labour statistician's gaze emanating from practical considerations was more aware of the nature of official figures as based on classificatory systems that needed to be delineated in the empirical dimension. The occupational information necessary to forecast manpower requirements in terms of individual skills and knowledges, as this chapter has revealed, was simply insufficient with regard to the labour statistician's own standards. This was also true for the measurement and interpretation of job vacancies. As this chapter has shown, job advertisements often went below the radar of local labour offices with the effect that information on manpower requirements was simply unavailable. Additionally, counting 'things' instead of 'humans' impeded any further qualification of the latter in terms of qualifications, skills and occupations. As long as the defence of economic freedom foreclosed the implementation of stricter legal and administrative requirements towards employees and employers to disclose such data, labour statisticians had to find ways around these imponderables. The most important remedy was, as this chapter has revealed, the appeal to the individual 'spirit of rigor' (Porter 1995) for the purpose of accurate stock control of files on vacancies.

The final section looked at broader issues in connection with forecasts and statistics. It was noted in detail that official statisticians were reluctant to acknowledge the authenticity of how data was used by economic forecasters. To express their mistrust some of their personnel drew boundaries around the space claimed by those elements that stood for the authority of official statistical data. Where economic forecasters were dependent on estimates, the official statistician put forward the 'officiality' of his figures, that is, the approved methods of data gathering legitimised by federal law and guaranteed by an exceptional statistical

infrastructure and work organisation. Where economic forecasters brought into play a whole new series of mathematical calculations and econometric modelling, official statisticians reclaimed the objective counting and neutral registration of social and economic facts. Looking from *within* the perspective of official statistics, the boundary work involved came closest to what Gieryn identified as the ‘monopolisation’ of knowledges and practices: ‘[C]ontending parties carve up intellectual landscape in discrepant ways, each attaching authority and authenticity to claims and practices of the space in which they also locate themselves, while denying it to those placed outside’ (Gieryn 2001: 424).

This chapter revealed another aspect of boundary work, one that was mainly concerned with the ‘protection’ of statistical legitimacy as a pertinent aspect of political decision-making. Gieryn’s typology again helped to schematise the fact that both official statisticians and economic forecasters maintained relatively strong ties to the outside, the world of politics, ministerial bureaucracy, interest groups and of others. Official statisticians and economic forecasters were unified in attempts to protect their autonomy and authority (especially the objectivity of their data) from usurpation or control by government officials and ministerial bureaucrats. Towards outsiders, both parties ‘protected’ their respective realms from petty politics and administrative practices. With the establishment of economic forecasting, however, official statisticians feared the invasion of politics into their realm of neutral and objective statistical work. As this chapter has revealed, especially with regard to the StBA infrastructure, this boundary was rather porous since economic forecasts were firmly established within the StBA. Allusions to protecting the autonomy of data gathering, of methodological strategies and of research agendas within the StBA were probably mere rhetoric against disparagements among colleagues, policy-makers and the public.

With these issues in mind, we can now turn to chapter 8 where I show how labour administrators further attempted to put the BAVAV labour statistical databases on sound legal and administrative bases. As I show, DGB officials in particular embraced the concept of an active labour market policy in the context of a ‘scientisation’ of labour market observation and the rise of occupational research – with important consequences for the labour statistical infrastructure.

**8. The G-Files under Debate and the Emergence of
Labour Market and Occupational Research as a New
Space for Labour Statistical Activities 1964-1967**

8.1. Introduction

Chapter 7 highlighted the role of an active manpower policy (*Arbeitskräftepolitik*) understood as a transnational reform project primarily disseminated under the umbrella of the OECD since the early 1960s, and in relation to employment forecasting as a particular mode of government in the German labour statistical landscape. The ‘manpower revolution’ further problematised the labour statistical databases in that from the mid-1960s the closure of gaps and the acceleration of data procurement became more pressing. At the same time, the kind and nature of data sought was also to change. Labour statistics were now to become part and parcel of a concern to code, count, and forecast the invisible labour force. What had been the focus of social-political rationalities during the Weimar period and the post-war chaos – the (invisible) unemployed in times of labour surplus – moved to the background in favour of economic rationalities concerned with employment figures, skills and profession, as well as the spatial distribution of the labour force. As shown, however, neither the data quality, the institutional make-up of West German labour statistics, nor the professional background of the personnel was particularly favourable to these demands.

This chapter builds upon these findings to discuss how labour administrators and statistical experts expended their energies to adjust the national labour statistical infrastructure to the new numerical standards of statistical accuracy now set by the *Mikrozensus*. My concern here is with two issues: to illustrate attempts by labour administrators to put the entire employment files on a new legal basis (the early emergency legislation of the FRG); to document simultaneous attempts to re-establish administrative procedures and legal codifications for the G-statistics to be adjusted.

This chapter moves on to show how BAVAV labour statisticians and DGB officials attempted to get around the fact that reliable figures for manpower policies and future labour market developments were either incomplete or inappropriate with regard to the information sought. In a rather desperate attempt, BAVAV labour administrators planned to interview businesses about the nature of their job vacancies. Leading DGB officials – equally desperate to get a grip on the expected

manpower effects of technological change and automation – suggested analysing market brochures of manufacturing companies for such information. My analysis shows that, for various reasons, all these attempts failed.

By January 1965, a last attempt was undertaken to adjust the G-cases. This involved a costly comparison of the information contained in BAVAV G-files and StBA census forms of G-interviewees. The tremendous efforts involved in this endeavour are interpreted by following MacKenzie's idea of 'insider uncertainty' (MacKenzie 1996: 16). For MacKenzie, this notion describes a moral and scientific resource in recognised experts which helps to explain how the stable identity of a technology may destabilise or even be changed. Internal disagreement among the recognised experts is a precondition to open the 'black boxes' if no outsider is in the position to do so due to incompetence, ignorance, or lack of access. As this chapter argues with reference to actor-network notions, the only people qualified to open the 'black box' of employment measurement were those who had been in a position to close it. I show how StBA and BAVAV insiders went about comparing BAVAV G-files and StBA census papers of G-interviewees in the attempt to come to terms both with hugely differing public figures and internal disagreement as to why they differed. As I show, this comparison indeed marked the final stage in the debate over the accuracy and purpose of the BAVAV employment files.

The final section of this chapter takes up the issue of manpower policies and labour forecasts (addressed in Chapter 7) to scrutinise further their dissemination and possible effects on labour statistics. I show how manpower policies and the statistical requirements that came with them were embraced enthusiastically by trade unionists within the DGB and the Industrial Union of Metalworkers in the attempt to come to terms with 'rationalisation' and 'automation' and possible effects on work and workers. As this chapter indicates, for DGB officials successful manpower policies were primarily a matter of effective labour market observation and hence the data procured by labour statistics. This chapter supports earlier research (Angster 2003; Altmann 2004; Schmid and Oschmiansky 2006) in affirming that DGB and the Industrial Union of Metalworkers were particularly receptive to international research in labour markets, mostly of US-American provenance. Given the tripartite representation within BAVAV self-governing bodies, the idea of a 'scientisation' of

labour market observation (Raphael 1996; Altmann 2004: 151) spilled into West German labour administration, most notably into the BAVAV working group Economic Structural Change (*Strukturwandel der Wirtschaft*) established in January 1965. As indicated in Chapter 3, this working group, together with the BAVAV committees on Technical Change and Labour Market, was instrumental in preparing the way for a central office for labour market research to be established in 1967 as IAB.

The activities of Rudolf Schmidt, head of BMA department IIa6 (Occupational classifications), however, require us to revisit Altmann's (2004) evaluation of the BMA's passive role in the establishment of the IAB. As this chapter further shows, the institutionalisation of the labour market and of occupational research discourse within the BMA department IIa6 (established in April 1964), and the IAB (established in April 1967), shifted discursive and institutional boundaries and made information on skills and profession, as well as on the spatial distribution of the labour force (again) a primary concern of governmental action. This shift crucially shaped discussions on labour statistics during the late 1960s.

The sections draw on archival material from the Federal Archive in Koblenz and from the Archive for Social Democracy in Bonn.

8.2. The Future of G-Statistics: Three Attempts to Put the G-Statistics on sound legal, administrative and statistical bases

After the BAVAV executive board's resolution in February 1963 to discontinue the employment files by the end of that year and to get a G-statistics off the ground, ministerial bureaucrats in particular from across the departments had not given up hope of saving the files. Their strategies generally drew their legitimacy from *beyond* the scope of the AVAVG, the major legal source of the employment files since 1957. The files, so their argument ran, not only had a purpose during times of peace (*Friedenszweck*, generally enshrined in §202 and the entire mission of the BAVAV to support labour market policies). They also had an emergency purpose (*Notstandszweck*), that is, 'the satisfaction of personnel requirements for non-military

services and manpower requirements in state of defence'.³⁴⁰ Ministerial experts renewed their attempts to keep the entire files (as noted earlier) when the future of the files was still pending.³⁴¹ By any means possible, the strategy attempted to bypass the BAVAV administrative board. The matter, as BMWi *Ministerialrat* Wolf clarified, 'should be regulated by law itself'.³⁴²

BAVAV and BMA labour administrators, by contrast, respected the decision of the BAVAV self-governing bodies. Aware of the legal boundaries set to labour administrative operations by the 1957 AVAVG, they were mainly concerned with establishing a sound administrative basis for the future G-statistics. After all, by early 1963, the respective G-cases – silted as they were – had not yet been adjusted: Neither were 'file corpses' sorted out, nor were the files updated by G-cases hitherto not classified. Thus, *within* the scope of the AVAVG, BAVAV practitioners Schönefelder and Kästner (see Appendix I) in particular followed strategies which would allow them to bring the level of information in line with the mobility and elusiveness of those to be filed.

8.2.1. A New Legal Foundation? Emergency Legislation and Labour Allocation in Case of War

During a departmental meeting in the late 1950s, Federal Ministry of Defence officials already remarked that if the BAVAV employment files were ever suspended, they would need to establish an equivalent file system themselves.³⁴³ In the light of ongoing debate over an emergency legislation, these ministerial concerns were again in the ascendant.

Between 1955 and 1961, in the wake of a treaty between the Allied Forces and the German government, BMI officials developed ideas on an emergency legislation. The treaty already envisioned the inclusion of far-reaching emergency

³⁴⁰ BMA, IIa3, Notstandsplanung, Protokoll über die Ressortbesprechung vom 19.12.63 im BMA, in: BAK B149/6123.

³⁴¹ See Note by BMA, Ib3 (Galland), Betr. Statistik der beschäftigten Arbeitnehmer, 7 March 1961, in: BAK B149/12324.

³⁴² MR Dr. Joachim Wolf (BMW) in a letter to MD Andres (BMA), 11 March 1963, in B149/6123.

³⁴³ See, for instance, BMA, IIb2, Fortführung der Beschäftigtenkartei bei den Arbeitsämtern, 17 October 1959, in BAKB 149/863.

prerogatives in the German Basic Law as a condition imposed by the Allies before they would transfer full sovereignty to the Republic (Schneider 1986). The BMI initiative developed emergency legislation which was to guarantee the continuation of essential governmental tasks within the framework of a democratic *Rechtsstaat*. A first draft bill, however, envisaged authorising the executive to issue extensive emergency decrees and failed to acquire the majority of votes in parliament in 1960 (Schneider 1986: 39-80; Hockerts 2006: 16). Discussions continued until May 1968, since also oppositional governmental forces (SPD, parts of the DGB) were ready to replace allied ‘dictatorial power’ by German laws – despite massive public protest, disagreement as to what events defined an emergency situation (internal state of emergency, state of tension, disaster, or state of defence) and how to incorporate the German parliament in either case.

Against the backdrop of these developments, during a BMA meeting in March 1961, *Ministerialrat* Dr. Stothfang (head of department II) again brought the emergency purpose of the files into play: the technical operation of the envisioned emergency legislation ‘rests upon the idea that labour offices in case of emergency would have to declare an emergency recruitment’.³⁴⁴ With the discontinuation of the files by the self-governed bodies of the BAVAV, these duties planned for by the state executive were, so the argument went, put at risk. Before the BAVAV administrative board voted for the discontinuation of the files in February 1963, ministerial officials sought a legal basis that might justify the continuation of the entire files in peace times, but with reference to the potentiality of war. A respective passage in the civil service legislation (*Zivildienstgesetz*) should oblige the BAVAV to continue the statistical census of the German labour force.³⁴⁵ Over the summer of 1963, the ministerial departments drafted a bill to the Committee of Head of Departments for Defence (*Abteilungsleiterausschuss für Verteidigungsfragen*). The opening passage of this document reveals the logic of an absent presence of war as well as the files’ role: ‘In times of international tension and in state of defence proper the satisfaction of manpower requirements also in the non-military sector must be ensured to address defence issues of vital importance [...] that is why respective

³⁴⁴ See Note by BMA, Ib3 (Galland), Betr. Statistik der beschäftigten Arbeitnehmer, 7 March 1961, in: BAK B149/12324.

³⁴⁵ See letter by MR Dr. Joachim Wolf (BMWi) to MD Andres (BMA), 11 March 1963, in B149/6123.

records have to be prepared also during times of peace'.³⁴⁶ After all, so the bill continued, vehicles and agricultural businesses were registered for the same reason and by the same principle. Further, other administrative data – registries' records and the wage tax card main file – were inappropriate since only the labour offices' files contained sufficient information on individual professional background. Further, §10 of the civil service draft bill defined the local labour offices as the 'draft agencies to satisfy personnel requirements for civilian services' so that also institutionally, defence purposes (recruitment and survival) and their technical operation (via the files) were guaranteed to operate under one roof.³⁴⁷

Irrespective of the statistical reservations regarding the files' accuracy, and before the legislative bodies even had come to ratify the civil service bill (*Zivildienstgesetz*), the BMA document was clearly in favour of a continuation of the files. This, hypothetically, also allowed the BMA to take over the costs of the files' maintenance which hitherto were borne by the BAVAV. High-ranking BAVAV labour administrators, namely Schönefelder and Kästner – both familiar with the file system since the 1930s – leapt to the BMA's defence. Schönefelder, during a departmental meeting in December 1963 deemed a general adjustment of the entire files possible. The adjustment of parts of the files had proven successful in some rural areas (e.g. Schleswig-Holstein).³⁴⁸ Kästner, newly appointed head of BAVAV department I and official expert at hearings of the parliamentary committee on labour in March and April 1964, repeatedly argued that if the labour offices were to put into practice the allocation of civilian labour during war, the employment files were the only source technically able to support this operation. If §53 AVAVG were to be abolished – as suggested by members of the parliamentary committee – a corresponding section in the civil service draft bill would be required in order to establish the files on a new legal basis. As Kästner clarified, however, he did not speak on behalf of the BAVAV in this matter, but as official expert

³⁴⁶ Vorlage an den Abteilungsleiterauschuß für Verteidigungsfragen, BMA IIa3, 22 August 1963, in BAK B149/6123.

³⁴⁷ See BMA, IIa3, Note, Zivile Notstandsplanung, 5 June 1964, in BAK B 149/6123.

³⁴⁸ BMA, IIa3, Notstandsplanung, Protokoll über die Ressortbesprechung vom 19.12.63 im BMA, in: BAK B149/6123. As noted in Chapter 4.3, rural areas, both scarcely populated and industrialised, were less of a challenge for the file-based statistics to be adjusted. Local labour office practitioners could call businesses to verify the information given, or just had a good knowledge of the area, which allowed them to compare what they saw with what they read on the files. As in the case of Schleswig-Holstein, the council administration co-operated in the adjustment procedure by providing the information on wage tax cards. In autumn 1959, this came under tax secrecy.

(*Sachverständiger*). The position of the BAVAV was that ‘the employment files were dead and would not be continued’.³⁴⁹

During the ministerial meeting in December 1963, representatives of the ministries of Health, Economic Affairs, Defence, Communications, and Agriculture, as well as the Federal Chancellery re-affirmed their interest in the continuation of the employment files. Due to hefty fluctuations among the professional groups concerned, the issuance of ‘supply orders’ (*Bereitstellungsbescheide*) was by now deemed impossible and, as *Minsterialrat* Dr. Schröder (BMW_i) remarked, practically futile. Eliminating the risk of a ‘false picture of war’, following a crude actuarial logic, he continued, ‘was worth an annual premium of 20 millions [the estimated annual costs of the employment files, JM]’.³⁵⁰ Only BMI and BMF representatives reminded others of the informational problems with which the files were tainted. Moreover, they argued that the result of the legislative process should be awaited, since only then would the professional groups defined be addressed by an adjusted file system.

The question of labour allocation in case of crisis such as war, for which the employment files were considered a necessary technical tool, cropped up again. Just as the files were originally established for the purpose of manpower and economic planning in 1935 – notwithstanding their new legal re-foundation on the Allied Control Council Act of 1947 –, the prospect of the ‘cold’ war turning ‘hot’ continued to be a legitimate reason to hold on to the files. Irrespective of the fact that the legislative bodies eventually thwarted the executives’ plans to inscribe the files into the logic of the emergency legislation (as its statistical-technical bases), the administrative and practical problem of unadjusted files lying dormant in labour offices across the country was still lingering. Without sound administrative bases which required legal justification, statistical accuracy of any kind could not be expected. The non-existence of a statistical apparatus would potentially put the BAVAV at risk of having to justify its own existence: labour market activities would remain in the dark; corresponding policies could neither be planned nor justified to the public.

³⁴⁹ See protocol 79. meeting of the committee of labour in 22 April 1964, p.8, in: BAK B149/12324.

³⁵⁰ MR Dr. Schröder (BMW_i) in BMA, IIa3, Notstandsplanung, Protokoll über die Ressortbesprechung vom 19.12.63 im BMA, in: BAK B149/6123.

8.2.2. How to Adjust the G-Files? Extended Notification on Labour Mobility and New Data Exchange Between Labour Offices and Local Authorities

At the same time as ministerial efforts were made to put the entire employment files on a new legal basis outside the AVAVG legal boundaries, BAVAV department Ia3 attempted to adjust the G-files via the re-establishment of data exchange between local authorities and AÄ, as well as via a new decree on the obligation to notify (§53 AVAVG).³⁵¹ With regard to the first, access to information on G-cases held by registrar's offices on marriages, divorces, changes of name, and deaths; by the authorities on civil servant entrances and retirements; and by trade offices (*Gewerbeämter*) on commencements and termination of self-employed work, were all to be resumed. The last-named initiative was already in train from 1958, when, with the future of the employment files still pending, the BAVAV suggested new blank forms to be issued by a BMA decree to trace the file identity of commuters *across* labour office districts and to procure information on the employee's disability status. The two administrative attempts here – standardised and legally binding notification and data exchange – were envisioned in order to establish an ongoing, up-to-date administrative basis for the future G-statistics. Commuters' mobility had in particular proven to be a major challenge for establishing an equivalent relationship between statistical counting, administrative action, and individual economic practices so that additional information on the commuters' current place of residence, as well as on the place of work, was requested. When Schönefelder, during a BMA meeting in December 1963, continued to press for the extended obligation to give information to the labour offices, BMA administrators warned that a legally binding duty of disclosure was not advisable, since fears of the Nazi work programme could easily arise.³⁵²

In December 1963, *Länder* ministries of the interior were requested to instruct the respective registries to transfer the information on change of names, moves etc. to local labour offices. With regard to moves, *Länder* ministries in the

³⁵¹ See BAVAV letter (Sabel) to BMA and BMI, Betr.: Einführung einer Teilkartei, 1 October 1963, in: BAK B149/12324.

³⁵² See note by BMA, Ila2 (Gronau), Weiterführung der Beschäftigtenkartei, 10 December 1963, in: BAK B149/6123.

majority responded positively.³⁵³ Information exchange, however, on recruited G-cases (soldiers and conscripts in basic military service), changes of name, deaths, civil servant entrances and retirements still had to be regulated.³⁵⁴ North Rhine-Westphalia's ministry – after consultation with the StLA – came to the conclusion that the G-file was entirely superfluous and should be discontinued. There were sufficient other statistical sources available (MZ and dormant placement file). Other *Länder* ministries soon followed this line.³⁵⁵

By autumn 1964, the future of the G-statistics was uncertain. On the one hand, administrators became aware that there was no ministerial bureaucratic way round the suspicions entertained by the parliamentary committee of labour that by an extended duty of disclosure via §53 AVAVG, 'the minister of labour and social order wanted to re-introduce through the back door the entire employment files at the labour offices'.³⁵⁶ A 'statistical law' proper was considered the only solution: an extended duty of employers and employees to disclose information was then envisioned under the condition that local labour offices would use the information for statistical data processing only³⁵⁷ – a strategy likely to further undermine the administrative basis of the G-statistics and emulate the statistical legalism characteristic of the StBA *Mikrozensus*. BMA head of department Ib2, Dr Scharlau, however, rejected these plans, since 'nowhere was there a proper starting point'³⁵⁸ for the law to hold independent of the AVAVG. The BMA thus eventually refrained from issuing a decree to alter §53 AVAVG, with the effect that an essential requirement to improve the data available for the G-statistics was made impossible. Things were hardly any better with regard to the data exchange problematic between AÄ and the registries. As the BMI announced in October 1964, non-existent legal foundations foreclosed the possibility 'to entrust further statistical duties to

³⁵³ See note by BMA, Ib2 (Dr. Scharlau), betr. G-Kartei, Mithilfe der Meldebehörden, 5 February 1965 for a synopsis of the *Länder* responses, in: BAK B149/12324.

³⁵⁴ BAVAV, Ia3 to BMA, betr.: Mitteilungen der Meldebehörden an die Arbeitsämter, 13 July 1964, in: BAK B149/6123.

³⁵⁵ Innenminister des Landes Nordrhein-Westfalen to the BMA and BMI, 27 April 1964 in: BAK B149/6123.

³⁵⁶ In BMA, IIa2, Sitzung des Ausschusses für Arbeit des Deutschen Bundestages am 11.3.64, in: BAK B149/6123.

³⁵⁷ BMA, note by IIa2 (Gronau), Einführung einer Teilkartei bei den AÄ zur Statistik der beschäftigten Arbeitnehmer, 7 September 1964, in: BAK B149/6123.

³⁵⁸ BMA, IIa2, Note on the Besprechung zwischen dem BMA und der BAVAV am 30.10.64, 4 November 1964, in: BAK B149/6123.

registrars'.³⁵⁹ In the light of these administrative and legal obstructions to the statistical reliability of the G-files, the G-statistics' future was rather bleak.

8.3. Labour Market Observation in the Statistical Nowhere: BAVAV and DGB Initiatives

There is also evidence to reveal how labour statisticians attempted to get around difficulties in procuring information on manpower requirements. By the early 1960s, the employment files, as the basis of labour statistics had been reduced to a placement file which contained files of job-seekers only – hardly an appropriate source for numbers on manpower. Further, by 1964, the G-files were still unadjusted and failed the minimum standard of statistical accuracy set for contemporary administrative statistics. Moreover, as noted with reference to Galland's remarks, for social and labour statisticians the 'invisible inexistent' (*future* manpower requirements) presented a formidable challenge in addition to the more common problems of data gathering. By the early 1960s, when problems of manpower requirements for a booming German economy were probably most pressing, statisticians in local labour offices found a way by just venturing into the field of their local districts themselves. In order to get the information they were seeking, they visited and interviewed selected plants and companies in person or by telephone. Instead of waiting for employers' notification sheets on job vacancies and redundancies – which were anyway unreliable since they were retrospective in nature, non-compulsory and lacked clear specification of the nature of the vacant job – they deployed simple interview techniques, supported by some blank forms to enumerate the manpower requirements 'from below'. If the paperwork could not procure the data, face-to-face contact should do the job.

The following example, moreover, reveals the 'grounded' character of the statistical inquiry. Methods were fairly un-standardised. Apart from a blank form where information was filled in on the spot, methods were basically left to the local labour practitioner's capacities and skill, on whose work the entire endeavour

³⁵⁹ BMI, IB4 to BMA, Mitteilungen der Standesämter an die AÄ, 13 October 1964, in: BAK B149/6123.

depended. Business censuses (*Betriebsbefragungen*) were undertaken by those local labour practitioners who maintained the best contacts with the businesses in their district. Crude calculations by forecasters and planners intended to draw on all kinds of secondary material of – from an official statistician’s point of view – dubious provenance. BAVAV techniques adopted a similar intellectual attitude towards data procurement, but were rather grounded in direct contact and tacit local knowledge which allowed for cross-checks with what had been seen on the spot. Naturally, the numbers’ accuracy relied on the willingness of the employer or personnel manager to disclose information.

Hans Redlich, during a meeting among LAÄ statisticians in December 1963, took up an idea from Gattinger’s brochure ‘On the Problems of Labour Market Statistics’ (*Zur Problematik der Arbeitsmarktstatistik*)³⁶⁰ to differentiate job vacancies by either ‘replacement demand’ (*Ersatzbedarf*) or ‘expansion demand’ (*Zusatzbedarf*) of manpower. He defined the former as a requirement of manpower ‘necessary to balance out natural staff loss due to death, disablement, or retirement as well as due to outflow (fluctuation)’. The latter, by contrast, defined required manpower to ‘meet an intended goal, as, for example, a performance goal (fulfilment of additional goals) or production target’.³⁶¹ BAVAV mathematician Ebeling subsequently developed an ad hoc research design to find out how many of the actual job vacancies were just due to fluctuations (*Ersatzbedarf*), and how many were genuinely expansion demand proper. A one percent random sample of ‘pending placement orders’ (*unerledigte Vermittlungsaufträge*) should identify businesses with vacant positions. Placement officers were to transfer the addresses thus procured to ‘a senior member of staff thoroughly instructed, who maintained close contact with businesses’.³⁶² They were then asked to call on businesses. The fact that businesses themselves were also

³⁶⁰ Josef Gattinger, economist at the IFO-Institute for Economic Research in Munich (*IFO-Institut für Wirtschaftsforschung*), delivered a public speech on this topic, the manuscript of which was sent by the IFO to the BAVAV statistical department (Redlich) in November 1963, see BAK B119/2271. Unfortunately, I could not find the manuscript in the archival records. The Ifo-Institute of Economic Research – Ifo stands for information and research – was co-founded in 1949 by Karl Wagner (1893-1963), who, as president of the Bavarian StLA since 1947 at the same time was responsible for the re-foundation of the DStG and the *Allgemeine Statistische Archiv* in 1948 (see Strecker and Bassenge-Strecker 2010).

³⁶¹ BAVAV, IVb, Auszüge aus der Niederschrift über die Tagung der Referenten für Statistik bei den LAÄ, 19 and 20 December 1963, in: BAK B149/12324.

³⁶² Ebeling (BAVAV), Untersuchung über den Zusatz- und Ersatzbedarf in der deutschen Wirtschaft an Arbeitskräften, 7 January 1964, p.3, in: BAK B119/2271.

interested in such data was a potential incentive for labour administrators to assume their cooperation. Information needed to be kept secret for the purpose of which blank forms had two pages. Only the first – to be kept with the ‘interviewer’ – contained the firm name and seat, whereas the second page was to be sent to the LAA for further enumeration.

For DGB officials, an active labour market policy was equivalent to an intensification of labour market observation. For any remedies against ‘technological unemployment’ and for an optimal utilisation of manpower resources, knowledge about present and, if possible, future labour market developments was essential. Against the backdrop of this goal, Beermann, in a letter to the parliamentary factions on the activation of labour market policy, noted that ‘the currently practiced labour market observation in no way addresses this need’.³⁶³ A DGB proposal attached anticipated the principles which would guide the establishment of the IAB a couple of years later: labour market policies were understood as a cross-sectional field inscribing into structural, spatial planning, occupational, social and economic policy objectives. Based on ‘the informational effect of such labour market observation’, future-oriented planning measures should be taken in the fields of ‘industry, settlement and resettlement, vocational support programmes, assistance to the areas adjacent to the Soviet Zone, de-agglomeration, foreigner recruitment, as well as for individual help in employment, placement, and vocational services, and retraining etc.’. Trends were to be calculated from statistical basic data but were not sufficient if taken alone. Techniques and methodologies that sound surprisingly akin to market research methods were to complement statistical trend extrapolations and business cycle depictions. Or, as Beermann phrased it in a noteworthy demarcation between statistical abstraction and sociological empiricism, the ‘statistical-calculatory result thus attained’ needed to be ‘backed up empirically’.³⁶⁴ Employers’ ‘plans and expectations’ on investments and technical restructurings were to be recorded in interviews and other methods in an attempt to standardise and improve sporadic measures that local labour offices had already entertained in order to obtain

³⁶³ Beerman, Entwurf eines Schreibens an die Bundestagsfraktionen, 14 May 1965, in: Archiv der Sozialdemokratie DGB0550.

³⁶⁴ Vorschlag des Deutschen Gewerkschaftsbundes zur Aktivierung der Arbeitsmarktpolitik (Entwurf), DGB Social Policy Department (Hermann Beermann), 14 May 1965, in: Archiv der Sozialdemokratie DGB0550.

information from employers. As I have shown above, these measures, however, were solely based on ‘good contact’ and thus, depended on the labour practitioner’s subjective capacities and ability.

Further, ‘case studies’ should be undertaken for particular ‘problem areas’ of the labour market, and ‘business surveys’ (*Unternehmensbefragungen*), as already conducted by the Ifo-Institute for Economic Research in Munich, should be intensified. Obviously, for what reads like a scientific-statistical arsenal against the ‘threat of the labour market’ (*Bedrohung des Arbeitsmarktes*),³⁶⁵ both more statistical material and extended legal powers on behalf of the BAVAV were demanded. §202 AVAVG, which laid down the legal requirements for a labour market analysis and observation, was indeed an ‘insufficient basis’ (*keine ausreichend Grundlage*) for the prospective labour market policy outlined here.

Markmann, member of the DGB economic policy department, welcomed the initiative on behalf of Beermann’s department to press for an ‘expansion and refinement of labour market statistics’.³⁶⁶ Markmann participated in a MSAC meeting on the future working-programme where similar initiatives were debated.³⁶⁷ Also the RKW was involved in such activation programmes together with the BMWi and BMA. The signs were that ‘vigorous measures towards a better screening [of the labour market situation]’,³⁶⁸ as Markmann put it, had a good chance of being incorporated in new legislation and policy, even though any concrete measures were not to be expected before the federal elections in September 1965. BMA and BMWi ministers Katzer and Schmücker responded in the affirmative to respective letters by Beermann to ‘activate’ labour market policies in December 1965.³⁶⁹

In the meantime, in a letter to trade union executive boards and DGB *Länder* boards, Beerman suggested some desperate methods to get a grip on the expected manpower effects of technical change and automation. Since businesses were most

³⁶⁵ Ibid.: 4.

³⁶⁶ Arbeitsmarktbeobachtung und Arbeitsmarktpolitik, 21 May 1965, in: Archiv der Sozialdemokratie DGB0550.

³⁶⁷ The example of Markmann supports Altmann’s conjectures about trade union’s receptiveness towards international developments as an important inspiration for the establishment of labour market research in the FRG (Altmann 2004: 131). Markmann’s involvement in the proceedings of the MSAC of the OECD, as well as Beermann’s role as rapporteur to the OECD trade union seminar on Active Manpower Policy in September 1963, are two cases in point.

³⁶⁸ Markmann, Abteilung Wirtschaftspolitik to Beermann, betr.: Arbeitsmarktbeobachtung und Arbeitsmarktpolitik, 21 May 1965, in: Archiv der Sozialdemokratie DGB0550.

³⁶⁹ BMA, IIa1 to Beermann, betr. Beobachtung der Lage und der Entwicklung des Arbeitsmarktes, hier: Aktivierung der Arbeitsmarktpolitik, 5. Januar 1966. BMWi an den Bundesvorstand des DGB, betr. Aktivierung der Arbeitsmarktpolitik, 12. Januar 1966, in: Archiv der Sozialdemokratie DGB0550.

likely to be uncooperative in disclosing figures on their personnel planning, Beermann suggested analysing ‘promotional brochures of manufacturing companies about information on effects the employment of machines might have on personnel’.³⁷⁰ The marketing strategy of producers should serve as a database for labour market forecasts. Each DGB organisation sector was asked to pass on the figures gathered.

8.4. The MZ Authority Confirmed: Comparing G-cases in MZ and BAVAV files

As I have shown in Chapter 6.5, the adjustment of G-cases presented various practical challenges to file workers and local practitioners, with the effect that the procedures could not be pursued homogenously across the national territory. Metropolitan areas, in particular, required special attention. By January 1965, for example, none of the adjustments for Hamburg, Hanover or Stuttgart had been completed.³⁷¹ Overall, 3.5 million file cards were compiled afresh, and a further four million were sorted out.³⁷² The fact that further adjustments were still attempted despite the fact that all the administrative attempts to secure the future of the G-statistics failed in the face of legal requirements is evidence of how important the G-files were considered to be. At the same time, these efforts only went unnoticed behind the ministerial walls because the overall economic situation did not direct any particular public or political attention towards the statistical apparatus. Labour market policy, as BMA administrator Scharlau noted, ‘in the present situation could be pursued with vague figures only’.³⁷³ Nevertheless, the BAVAV had to fulfil legal obligations, to re-confirm its status as a public corporation, and the BMA was

³⁷⁰ Letter of DGB Bundesvorstand (Beermann) to Hauptvorstände und DGB Landesbezirke, betr.: Beschaffung von Information für Zwecke der Arbeitsmarktbeobachtung, 15 February 1966, in: Archiv der Sozialdemokratie DGB0550.

³⁷¹ BMA, Ib2, Niederschrift über das Ergebnis der Besprechung mit der BAVAV am 28 January 1965, in: BAK B149/6123.

³⁷² BMA, IIa2, note, Teilkartei bei den Arbeitsämtern zur Statistik der beschäftigten Arbeitnehmer, 2 February 1965, in: BAK B149/6123.

³⁷³ BMA, Ib2, Niederschrift über das Ergebnis der Besprechung mit der BAVAV on 28 January 1965, in: BAK B149/6123.

supposed to pursue labour market policies – all of which required statistical observational instruments.

Comparison of *Mikrozensus* figures from April 1964 with the BAVAV representative statistics from September that same year revealed a difference of more than one million in total figures. Figures on the level of labour offices differed greatly, and delivered an even cruder picture where particular groups were counted (for example, female employees).³⁷⁴ As noted in Chapter 5.4, the credibility of employment figures in the eyes of the public depended on, among other things, the accuracy of measurement. This, in turn, was a matter of unambiguous figures. Galland, in an earlier meeting on the future of G-files, described the labour administrator's stance towards publication policies in this respect. 'If in a near future', Galland stated, 'there were three different figures taken from the population census, the Mikrozensus and from the G-files, and if these figures differed from each other, one had to decide which figure was going to be regarded as correct'.³⁷⁵ Divergent measurements were only acceptable if they represented their objects by the same numbers. Since that was hardly attainable with regard to the classifications and statistical processes involved – as also Galland was aware – a decision on 'the correct' figure was required before publication. There was, theoretically, the possibility of informing the public about comparative details of each measurement. Galland, however, at the expense of estimating and publishing errors of observation or registration, preferred to prevent further public confusion by adhering to a single set of figures. After the G-files had been adjusted unsuccessfully, BMWi economist Karl-Heinz Raabe more frankly advocated a single figure for the total number of employees: 'The fact that 2 [sic!] different figures on the total number of people employed have been published has attracted most negative attention'. He even suggested some kind of manipulation. Since the results of the G-statistics were extrapolated anyway (via the G-quota in every local labour office district, as far as it was ascertainable), Raabe suggested 'estimating the number of those who by

³⁷⁴ BAVAV, Ivb3 (Hans Komo) to the BMA, betr.: Vergleich von Ergebnissen aus dem MZ 1964 mit denen der Beschäftigtenzählung der Arbeitsämter, 7 January 1965, in: BAK B149/12324.

³⁷⁵ Galland in a note by BMA Ila3, Weiterführung der Beschäftigtenkartei der BAVAV, 25 July 1961, in: BAK B149/6123.

definition were either not included in the files or disproportionately so in order to by and large get to the figure declared by the Federal Statistical Office'.³⁷⁶

In the light of these numerical discrepancies, the actual content of the G-files were to be verified. What initially triggered the entire debate – the numerical discrepancy in StBA and BAVAV labour statistics – culminated in an opening of the 'black boxes' of measurement. The content of the G-files was to be compared with respective G-cases in the Mikrozensus. The two different measurements at the root of the official statistics, administrative registrations and surveys (see Chapter 2.6), were thus brought together as far as the G-cases were concerned in order to evaluate the reasons for the divergent results.

The idea of comparing G-cases between statistical systems was first brought up by StBA statistician Herberger (see Appendix I) during a meeting with BAVAV and BMA representatives in February 1965.³⁷⁷ What could not be put on a sound administrative-legal basis was now supposed to be attained through a manual comparison between files and census papers. Information on G-cases gathered by the *Mikrozensus* through interviews in registration districts (*Zählbezirke*) should be compared to G-cases stored in local labour office districts. Preparations for this rather elaborate endeavour took until late 1965. The StBA – where all the information was to be amalgamated and compared – presented results only in April 1966.

Interestingly, the MZ figures seemed now to be taken as the comparative foil against which authority the G-sample would have to stand the test. As shown in chapter 6.2, the entire debate about the BAVAV employment files gained momentum with the publication of the first MZ in October 1957 when figures on the overall number of employed persons differed considerably between the two institutions. The contestations of the file-based system were brought forward by the figures of a then new albeit weak statistical authority, the *Mikrozensus*. At that time, BAVAV and BMA administrators were not convinced of the truthfulness of the MZ representative sample, the data basis of which was gathered by interviews. By the beginning of the 1960s, the administrators' trust seemed to have tipped towards the

³⁷⁶ BMWi, IA7 (Dr. Raabe) to BMA, betr. Beschäftigtenstatistik der BAVAV nach der G-Kartei, 31 January 1964, in BAK B149/6123.

³⁷⁷ BMA, Ib2, Niederschrift über das Ergebnis der Besprechung zwischen BAVAV und StBA on 22 February 1965, in: BAK B149/6123.

MZ procedures and its figures. The MZ results, especially with regard to controlling the statistical projection via the G-quote set the comparative standards even although they reached only to the level of the *Länder*. The sum of employed and *Angestellten* figures calculated by projection of G-cases in labour office districts ‘shall be compared to the 1% survey of the *Mikrozensus* and to the ‘continuous series’’. As the April meeting concluded, even though the G-section was not regarded as a random sample, the crosscheck of G-results with the MZ results was practically understood as ‘adaptation to a real random sample’ and considered ‘an improvement in comparison to the original concept’.³⁷⁸

A first meeting on the interpretation of the divergent results took place in late January 1965 under the exclusion of StBA experts. BAVAV and BMA administrators agreed that the initial plan to publish only one single figure of the total number of employers was simply made impossible by the discrepancy of roughly 1 million between results of MZ and G-statistics – the G-statistics results were ‘implausibly low’ (*unglaublich niedrig*) to just aggregate and publish. For the BMA, at that moment the establishment of the inaccurate G-statistics was still justifiable under the condition that no total figures were going to be published, ‘but only ‘tendencies and developments sketched out’.³⁷⁹ There was general agreement that a G-sample did not ‘represent’ the entire population. The G-quote just varied across different economic branches to such an extent that systematic errors could not be mathematically estimated and subsequently adjusted. At the same time, however, from within the BMA in particular, the MZ results were not embraced unconditionally either: As Scharlau remarked, ‘there were sources of error, which, however, no outsider would ever know’.³⁸⁰ Continuation of the G-statistics – if only the G-quote could be calculated correctly – was still within the realm of possibility for administrators. The BAVAV executive committee of legal and administrative issues (*Vorstandsausschuss für Rechts- und Verwaltungsfragen*) similarly argued from the point of view of the G-statistics. The verdict of the mathematical statisticians notwithstanding, the subjective information on the employment situation

³⁷⁸ BMA, Ib2, Betr.: Niederschrift über das Ergebnis der Besprechung zum G-Ausschnitt der Arbeitnehmerkartei am 27.4.1964, p. 2, in: BAK B149/12324

³⁷⁹ BMA, Ib2, Niederschrift über das Ergebnis der Besprechung mit der BAVAV, 28 January 1965, in: BAK B149/6123.

³⁸⁰ BMA, IIa2, Note on the Besprechung am 28.1.65 im BMA über die bisherigen Ergebnisse der G-Kartei’, 2 February 1965, BAK B149/6123.

transmitted during the census interviews was for the BAVAV administrators potentially prone to faults at least in comparison to the facts contained within the administrative realm of the AÄ. It might have been the case, as the protocol recorded, that ‘G-persons registered with the labour offices as employed did not state their employment relationship at the MZ’,³⁸¹ with the effect that it was not the G-files that were faulty but rather the MZ, which under-registered (*untererfassen*) some of the population.

This evidence points to the mutual intersection of the two statistical activities under consideration, the administrative and the sample surveys. As mentioned in Chapter 2.6, the administrative and legal bases of the BAVAV labour statistics (legal codification, administrative claim forms and file cards, as well as the actual act of registering with a local labour office) were at the same time the socio-technical anchor point in the everyday life of the working population necessary for the *Mikrozensus* to essentially work. Only insofar as those interviewed by the MZ had come to realise their situation as either employed, unemployed, or as civil servant or *Angestellte* – either definition usually took shape through various contacts (in person or through forms) with the administration – could they give the precise responses required during the interview situation. The more transparent administrative actions were towards clients (occupation, economic branch, skills and so on), the simpler it was for them to declare their respective status during the MZ interview.

As the situation unfolded by the beginning of 1965, the G-files had neither been fully adjusted nor were the legal and administrative codes in which they were embedded sufficiently unambiguous. At the same time, BAVAV and BMA administrators in particular reasoned that even if the G-files were accurate, interviewees might still not mention their respective employment situations to the census interviewer, with the effect that neither BAVAV nor StBA labour statistics were accurate. There was only one way to find out: opening the black boxes of measurement of both StBA and BAVAV to compare for their veracity the information on G-cases gathered by the *Mikrozensus* through interviews in registration districts (*Zählbezirke*), with G-cases stored in local labour office districts.

³⁸¹ Ergebnisprotokoll über die 9. Sitzung des Vorstandsausschuss für Rechts- und Verwaltungsfragen am 10. März 1965, in: BAK B149/6123.

Preparation for these case-by-case comparisons involved not only the MZ experts within the StBA, and BAVAV and BMA administrators. The BAVAV chose twenty-one major towns for the cross-examination. The StLÄ chose ten MZ registration districts within each of these towns, and which were part of the MZ in April 1965. Particular AÄ were requested to verify the MZ G-cases within their G-files, and StLÄ had to crosscheck the results transmitted in their census papers for the respective registration districts. StBA department VIII first was concerned with the practical question of how the information contained on file cards and census papers could be brought together without violating legal requirements of data protection and at the same time guaranteeing a sensible comparison.³⁸² The practical difficulties were immense. If, for instance, the descriptions of MZ registration districts (street name, house number) were transmitted to the respective local labour office(s) in order subsequently to detect the G-cases residing within these districts, the G-files would need to be checked in their entirety for each single name. Since the files were not ordered by street name but alphabetically, the G-tenants in each house needed to be cross-checked with the entire local G-file. As StBA statistician Schwarz concluded, ‘Considering, for instance, that roughly 25000 G-cases were filed in Munich alone, the difficulties that would need to be overcome for such a review – albeit the case was extreme – become apparent’.³⁸³ Blank forms – so called count sheets (*Zählblätter*) – had to be developed in order to record the information taken from each G-file to be subsequently circulated between AÄ, LAÄ, StLAÄ, and the StBA for comparison with the G-cases of the registration districts.

By September 1965, it was considered most practical to select particular towns and municipalities to be cross-examined. AÄ’s statistical services had to detect G-cases within the MZ registration district and transfer their information on count sheets to be subsequently sent to the LAÄ where these were gathered, enumerated and sent off to the BAVAV. Each AA participating in that crosscheck required the sifting of 10000 to 30000 G-files several times.³⁸⁴ The reverse course of

³⁸² StBA (VIII, Schwarz) to the BMA, betr.: Möglichkeiten eines Vergleichs der Unterlagen der G-Kartei und des Mikrozensus, 14 June 1965, in: BAK B128/4111.

³⁸³ StBA (VIII, Schwarz) to the BMA, betr.: Möglichkeiten eines Vergleichs der Unterlagen der G-Kartei und des Mikrozensus, 14 June 1965, in: BAK B128/4111.

³⁸⁴ See BAVAV, IVb3 (Hans Komo) to the LAÄ presidents, betr.: Vergleich der Unterlagen der G-Kartei und des Mikrozensus, 21. September 1965, in: BAK B149/6123. Count sheet blank in the appendix to this letter.

action – that the StLÄ disclose the MZ information of G-cases to the LAÄ³⁸⁵ – was foreclosed by the ‘obligation of secrecy’ (*Geheimhaltungspflicht*) under which the MZ data was gathered within the LStÄ. From the BAVAV, the filled-in counting sheets were sent to the StLÄ either for the information on the MZ lists to be added or for new count sheets compiled for all those G-cases (of 14 years of age and older) who had not been found in the AÄ. All the counting sheets (ordered by registration district) were sent to the StBA where the information was condensed into a report, to be discussed during a two-day meeting among BAVAV, BMA and StBA administrators in Wiesbaden in April 1966.³⁸⁶

The criticism of the G-files issued by the StBA in summary was ‘devastating’ (*niederschmetternd*).³⁸⁷ Of 310 counting sheets examined, for only 188 did the information match between G-file and MZ. For the employment situation of the rest various discrepancies were detected, most of them leading to an exaggerated representation: the most important ones were multiple captures of very mobile employees across different labour office districts, the problems of wrong classification of retired civil servants, ‘dead’ files and employees who had moved from one to another labour office district but contained in both, as well as the common omission of self-employed persons within the G-files.

The meeting in Wiesbaden also brought over the statistical experts within the BAVAV and the BMA administration. It was concluded, that ‘From a statistician’s viewpoint the continuation of the G-files – with annual costs of 4 million DM – is unjustifiable’. A more sophisticated sample selection based on birth dates was foreclosed due to the overall exaggeration of the G-files. A proposed re-introduction of an entire employment file was unpromising due to the ‘nonexistent quantity and quality of file workers’, both of which would even increase if a comprehensive file was envisaged. Besides, there were insurmountable legal hurdles to a sounder

³⁸⁵ Essentially, once the count sheets were filled in with the MZ information, these fell under federal statistical law i.e., were not allowed to leave the premises of the StLÄ or StBA. This also had serious consequences for all those cases, which were falsely filed as G-cases: they could not be followed up since there was no lawful way to compare them to MZ information.

³⁸⁶ StBA (VIII) to the StLÄ, betr.: Vergleich der Unterlagen der G-Kartei und des Mikrozensus, 9 November 1965, in: BAK B128/4111. This letter also includes a detailed ‘Operating Instruction for Processing Count Sheets’ (*Arbeitsanweisung für die Bearbeitung der Zählblätter*). StBA (VIII) to the BMA, betr.: Vergleichsuntersuchung G-Kartei und Mikrozensus, 8 July 1966. The ‘Report on the Comparison of G-File and MZ Records’ (*Bericht über den Vergleich der Unterlagen der G-Kartei und des Mikrozensus*) was attached to that letter, see BAK B128/4111.

³⁸⁷ BMA, Ib2, G-Kartei, Niederschrift über die Besprechung am 5./6. April 1966 in Wiesbaden, 21 April 1966, in: BAK B149/6123.

exchange of information (see above). Van Randenborgh concluded his note with great foresight: with the expected discontinuation of the G-files, 'there will be new deliberations for the BMA because in future labour market figures divided by region will be needed after all'.³⁸⁸

In the light of these developments, heads of BMA departments I and II turned van Randenborgh's anticipation into more concrete claims. Käfferbitz, in a statement to van Randenborgh's note on the Wiesbaden meeting noted: 'In my opinion, the BAVAV must not abandon the possibility of coming to well-founded assertions on its own just now when general claims were made to expand and refine labour market observation, even, if possible, of arriving at substantiated predictions about short- and mid-term manpower supply and demand'. If the BAVAV renounced its 'separate data gathering', this would lead to an 'unjustifiable reduction of its effectiveness'.³⁸⁹ The head of department I conceded the claims for BAVAV figures and moreover stated that for a future statistics a 'decentralised file card within labour offices'³⁹⁰ would be insufficient. Within the BMA, a 'centralised total registration by the help of modern electronic data processing'³⁹¹ was quickly established as the goal to be attained.

8.5. From Labour Market Observation to Labour Market Research: The Scientisation of Labour Market Policy as a Challenge to the Establishment of a New Labour Statistics

Altmann's research hypothesised about the role of the DGB as an entry point for international recommendations. He further noticed that due to the incorporation of trade unionists into the BAVAV self-government bodies, these organisations, since early in 1965 and therefore earlier than the BMA, had grappled with future possibilities of labour market research (Altmann 2004: 131). Altmann's conjectures

³⁸⁸ BMA, Ib2, G-Karte, Niederschrift über die Besprechung am 5./6. April 1966 in Wiesbaden, 21 April 1966, in: BAK B149/6123.

³⁸⁹ BMA, II (Käfferbitz), Ihr Schreiben vom 21. April 1966, 4 August 1966, in: BAK B149/6123.

³⁹⁰ BMA, Ib2 (Haenlein) to department II, betr. Statistiken der beschäftigten Arbeitnehmer, 26 August 1966, in: BAK B149/6123.

³⁹¹ BMA, IIa3, note, betr.: Rücksprache beim Herrn Abteilungsleiter am 5.10.1966, 16 October 1966, in: BAK B149/6123.

are supported by the fact that no senior personnel within the BMA departments I and II were involved in the preparatory meetings for a labour market research institute. Given the self-governing prerogatives of the BAVAV, such a division of labour between labour administration and state executive was not particularly unusual. The activities of Rudolf Schmidt, head of BMA department IIa6 (Occupational classifications), however, must prompt us to revisit Altmann's evaluation of the BMA's passive role in the establishment of the IAB. Schmidt not only took notice of trade union activities with regards to labour market research from the early days of the BAVAV working group *Economic Structural Change*. From May 1965, he also introduced his own considerations which emanated from the wider deliberations on occupational classifications and descriptions he and others had been involved in since the late 1950s. Besides these efforts, through the reception of an active labour market policy beyond the institutional demarcation of the ministerial labour administration, the IAB emerged as a new player in the debates on the future of the labour statistics. The institutionalisation of the labour market research discourse within the IAB from the beginning set the goal of 'giving a direction to the future employment statistics'.³⁹² These claims were shortly thereafter re-affirmed in detail in an article by two leading figures of the then newly-established IAB (Karr and Mertens 1968).

Rudolf Schmidt, head of BMA department IIa6, closely followed the developments within the BAVAV working group *Strukturwandel der Wirtschaft* and the subsequent committee 'Technical Change and the Labour Market' (*Technischer Fortschritt und Arbeitsmarkt*). Schmidt relayed his remarks to the former BAVAV vice-president Dr Hans Henschel, who, in spite of his retirement in 1962, played a vital role in the development of a programme on labour market research within the BAVAV. Whether Schmidt himself was a member of the BAVAV working group could not be verified from the material at hand, but it is likely given his knowledge of the matter and the contact he maintained with the chairman Henschel. Interestingly, for Schmidt, the proceedings of the working group and committee seemed to have presented a welcome opportunity to put forward the concerns of his own department 'occupational classifications' (*Berufsklassifizierung*,

³⁹² BAVAV, Besprechungsunterlagen für die Sitzung der gemeinsamen Ausschüsse 'Technischer Fortschritt und Arbeitsmarkt' am 3.10.67, p.23., in: BAK B149/22047.

Berufssystematik). Repeatedly, he mentioned the envisioned labour market research together with ‘occupational survey and observation’ (*Berufserkundung und –beobachtung*) – the establishment of both administrative-scientific fields at that moment depended on the extent to which their respective research objects could be defined. Flagging the importance of labour market research, Schmidt concluded ‘Whether or not the tasks of labour market research – and hand in hand with it – those of occupational surveys and observation are now viewed accurately and tackled with promise may be crucial for subsequent generations’.³⁹³

Schmidt was certainly aware of the strategic opportunities presented to him with the BAVAV efforts to intensify labour market research. As a title for his remarks, he for ‘tactical reasons’ (*aus taktischen Erwägungen*) avoided (as he confessed to Henschel) the term ‘labour market research’ to, using instead ‘modern labour market observation’ (*zeitgemäße Arbeitsmarktbeobachtung*).³⁹⁴ Schmidt entertained concerns whether labour market research could be established on the basis of the given legal basis. These tactical semantic games notwithstanding, labour market research and occupational research were supposed to coalesce.

Schmidt’s department Ila6 was officially established in April 1964 after a period of tedious bickering over responsibilities among BAVAV, StBA and BMA since 1955, in the course of which the two existing occupational classification systems – different in nature and purpose³⁹⁵ – were brought in line with the ILO International Standard Classification of Occupations (ISCO).³⁹⁶ A working group among StBA, BAVAV, and BMA began to adjust the German occupational classification to the ISCO in early 1958. Shortly thereafter, they gave up in the face of the scope and complexity of the task.³⁹⁷ For StBA members the occupational research element of the job exceeded their competencies as occupational statisticians,

³⁹³ Schmidt in a letter to Henschel, 30 June 1965, in: BAK B149/8600.

³⁹⁴ The full title of his notes were: ‘Überlegungen, Hinweise und Vorschläge zur Aufgabe und zum Instrumentarium einer zeitgemäßen Arbeitsmarktbeobachtung durch die BAVAV, see appendix to Schmidt in a letter to Henschel, 30 June 1965, in: BAK B149/8600.

³⁹⁵ One followed a labour administrative logic, the other – as part of the Reich Statistical Office – was ordered by population statistical standards.

³⁹⁶ See for instance, BMA Ib2, Note, Überarbeitung der Berufssystematik, Fortsetzung der Arbeiten, 6 December 1959, in: BAK B149/8598. In an earlier handwritten note, Schmidt mentioned the ‘Compendium of Professions’ (*Handbuch der Berufe*) compiled between 1928 and 1933 by the RAVAV as an indispensable albeit out-of print source for the present work. It was considered to reproduce on microfilm the only volume of this 2300 pages oeuvre then in possession of the BMA for the working group’s purposes. MD Luyken later considered this inappropriate. See BMA, Ib2 (Schmidt), note, no title, 16 February 1959, in: BAK B149/8598.

³⁹⁷ See notes on the history of the sub-department Ila6, in: BAK B149/8598.

and overstrained capacities already exhausted with the preparation of the population census in 1961. The ‘national policy imperative to investigate and represent professional conditions’ required a central office within the state administration which was supposed to be responsible for ‘the entire complex of occupational information in the broadest sense’.³⁹⁸ Sweden’s ‘central occupational information office’ (*zentrales Berufsinformationsamt*) within the ministry of labour was mentioned as a model. In April 1962, after the working group was dissolved, the BMA assumed administrative responsibility for the entire task of compiling ‘occupational information’ (*Berufsinformation*). A ‘central archive for occupational studies’ (*berufskundliches Zentralarchiv*) was to be established containing the description of roughly 18000 occupational titles ordered by occupational classification (*Systematik der Berufe*).³⁹⁹

This archive was nothing less than the administrative attempt to convert manifold human economic activities (the participation in economic life) into a conceptual-classificatory order. Common representations of human activities, as they existed in various everyday life categories of professional descriptions were to be brought into line with a statistical representation by way of an ‘official operation in coordination and conceptual ordering’.⁴⁰⁰ ‘Professionals in occupational studies’ (*Berufskundler*) were to observe, enquire about (via interviews) or analyse material on professional activities all to be subsequently documented in the archive. ‘Professionals in occupational classifications’ (*Berufssystematiker*) – in association with *Berufskundler* – were to tally these descriptions with the ISCO classificatory scheme taking into consideration local specificities, such as vernacular specificities and designations derived from technical working conditions, particular professional knowledge (*Berufswissen*) about methods, techniques, material properties (*Materialeigenschaften*), and tools acquired in the course of single working steps characteristic of the work place.⁴⁰¹ Fundamentally, the department (in Schmidt summary) was to contribute to ‘authoritative or conventional verifications about the

³⁹⁸ Zusammenfassung der Vorgeschichte des Referats IIa6, in: BAK B149/8598.

³⁹⁹ BMA, Note betr.: Berufskundliches Archiv und Berufsklassifizierung, in: BAK B149/8598.

⁴⁰⁰ Diagram entitled ‘Unzureichende Möglichkeiten und Mittel für eine zuverlässige Unterrichtung über die Berufe und über die Berufstätigkeit verlangen koordinierende und begriffsordnende amtliche Tätigkeit’, no date, in: BAK B149/8598.

⁴⁰¹ BMA, IIa6, Was sind Berufsbeschreibungen/Arbeitsbeschreibungen und welchen Zwecken dienen sie? Richtlinien für die zweckmäßige Anfertigung, in: BAK B149/8598.

pre-conditions which have to be fulfilled in order to rate the exercise of one or several work performances/operations as a profession'.⁴⁰² The department was thus a major attempt to institutionalise official occupational research and classification against the 'un-coordinated plethora of private and public offices [...] with different – often interest-driven – ambitions'.⁴⁰³ The practice of an occupational researcher was similar to that of official statisticians. Both were supposed to possess the characteristics of a rigorous spirit: as the preliminary 'guiding principles for a purposeful production' of occupational descriptions stated, 'the compiler at all times must adhere strictly to the established facts and must not allow any 'imagination' to develop. For the purpose of presentability, the description should be 'prosaic' but not 'dry'.⁴⁰⁴

Occupational knowledge has long been of great importance to vocational counselling and to the placement services within labour administration. Schmidt, in a note on future personnel requisitioning for his department, considered occupational information the qualitative side to the quantitative statistical capture of manpower, in which role it was indispensable, especially for rendering the labour market transparent in terms of its occupational structure.⁴⁰⁵ Work on occupational statistics (*Berufsstatistik*) was continued by a StBA working group (established at the suggestion of the StBR in May 1965) under the chairmanship of Hans Sperling (see Appendix I) from June 1965 onwards.⁴⁰⁶ 'Changes of job content and the emergence of new occupational titles as a consequence of technical and organisational development of operational procedures and of the labour market situation'⁴⁰⁷ were considered the primary reasons for its implementation. The main task was counselling on questions of methodological design and the technical development of occupational statistics. In consultation with other institutions, which became

⁴⁰² BMA, IIa6 (Schmidt), Berufsklassifizierung, Berufssystematik, o.J., in: BAK B149/8598.

⁴⁰³ Zusammenfassung der Vorgeschichte des Referats IIa6, in: BAK B149/8598.

⁴⁰⁴ Was sind Berufsbeschreibungen und welchen Zwecken dienen sie? Richtlinien für die zweckmäßige Anfertigung, no date, in: BAK B149/8598.

⁴⁰⁵ See Schmidt in Erläuterungen zur Begründung der Personalanforderungen für ein neues Referat 'Berufsklassifizierung und -information', May 1963, in: BAK B149/8598.

⁴⁰⁶ Other members of the working group were Dr Marianne Dünnwald, Rudolf Schmidt (both BMA); Ernst-Heinrich Weltmann (StBA); Kuno Eberhard, Hans-Peter Hoffmann, Lothar Schneider, Dr. Hermann Schwarz (all BAVAV). Further, Dr Fritz Molle (*Arbeitsstelle für betriebliche Berufsausbildung*) and Franz Zopf (Bavarian StLA) participated (see StBA 1975: 3). Molle and Zopf had been concerned with occupational classificatory issues since the late 1940s, as indicated in Chapter 4.

⁴⁰⁷ StBA, VIII, protocol of the first meeting (23 and 24 June 1965) of the working group occupational classifications, 21 July 1965, p.3, in: BAK B149/8599.

increasingly concerned with the statistical observation of occupations, the working group was supposed systematically to class newly emerging occupational titles, demarcating professions by job characteristics, and to develop a *Berufsnachwuchsstatistik*.⁴⁰⁸

According to Schmidt, the term ‘labour market and occupational research’ (*Arbeitsmarkt- und Berufsforschung*) was first mentioned by Henschel during a presentation to LAÄ presidents in February 1965.⁴⁰⁹ Henschel was subsequently commissioned to flesh out the new semantic creation with legal requirements, technical and organisational structures and the object of study proper, for which purpose the working group *Strukturwandel der Wirtschaft* was brought to life. In the course of its deliberations, it was even considered whether to establish a scientific advisory council (*Wissenschaftlicher Beirat*) within the BAVAV.⁴¹⁰ This suggestion was later rejected. The overall purpose of comprehensive labour market observation concerned with the quantitative and qualitative consequences of technical change was further debated during working group meetings in June 1965, and subsequently given organisational manifestation in form of the Committee of Technical Change and Labour Market in October 1965.⁴¹¹

Under the chairmanship of Henkelmann and Herbst, this committee envisioned the foundation of ‘a special institution within the BAVAV central office’.⁴¹² The term ‘labour market and occupational research’ was not mentioned during the foundational meeting, but the committee proceeded fairly quickly towards an independent institute within the premises of the BAVAV.⁴¹³ Schmidt’s consultancy document for a meeting of the BAVAV working group *Strukturwandel der Wirtschaft* in May 1965 pointed to the mutual interlocking of vocational counselling, placement services and labour market research. Whereas the first two ‘constantly face the task of giving advice or making arrangements, which aim at a distant future’, it was the task of labour market research to ‘investigate

⁴⁰⁸ Ibid.: 4,5. The group issued a systematic and alphabetical description of occupational titles in 1970 (StBA 1970). Chapter 9.4 discusses the BA version of it.

⁴⁰⁹ Schmidt, neither title nor date, in: BAK B149/8600.

⁴¹⁰ Schmidt, No title or date, in: BAK B149/8600.

⁴¹¹ I could not find any archival records of these meetings in Munich-Fürstenried.

⁴¹² BAVAV, Pressemitteilung Ausschuß ‘Technischer Fortschritt und Arbeitsmarkt’ konstituiert, 7 October 1965, in: BAK B149/8600.

⁴¹³ See Ausschuss ‘Technischer Fortschritt und Arbeitsmarkt’, protocol of the first meeting, 29 October 1965, in: BAK B119/2650.

systematically and regularly the trend of development of single professions within different economic branches [...], to collect, analyse and utilise the findings made at a central place'. Forecasting the labour requirements by profession was considered the missing link: scientific enquiries into the evolution of particular professions, dependent on technical progress and projected economic development, was to deliver the foundations on which policies for vocational counselling and job placement were to be developed. Based on considerable confidence in the reliability of forecasts, they were believed to

‘enable the professionals to critically evaluate labour market development at their local plants in view of the knowledge which were gained in other districts. [Forecasts] should also prevent wrong decisions based on ignorance of predictable changes in the economic situation, in occupational structure and content’.

Labour market research was thus to be located between modern business cycle research and continuous local enquiries into the development of the employment structure both in particular companies and by occupational titles. Importantly in relation to my thesis, labour market research was believed to ‘[...] complement labour market observation and statistics hitherto pursued’. In contrast to a statistical numerical logic, however, labour market research was believed to only ‘sketch out the prospective tendency of development and point at the factors by which it is influenced’.⁴¹⁴

8.6. Conclusion

This chapter has examined the ways in which labour administrators within the StBA, the BAVAV and the BMA attempted to put the G-files on sound legal, administrative and statistical bases. This was done against the backdrop of an examination of the extent to which the simultaneous ‘manpower revolution’ during the early 1960s re-defined labour statistical discourse and the institutions of labour market observation in West Germany more broadly. With regard to the former, this chapter took up elaborations in Chapter 4 and 6, where I showed how ministerial

⁴¹⁴ BMA, IIa6, Beratungsunterlagen für die Sitzung des Arbeitskreises ‘Strukturwandel der Wirtschaft’, 6 May 1965, in: BAK B149/8600.

bureaucrats and labour administrators, from 1951 onwards, turned the employment files into an object of debate regarding how and for what purpose individual information was to be used. This chapter documented similar albeit more serious efforts during the early 1960s.

Against the background of an unclear situation as to who was to pay for the continuation of the files, and, more importantly, how their existence could be justified legally and administratively, the preparations for emergency legislation for West Germany in the period 1955-1960 provided a welcome opportunity for ministerial bureaucrats from across the departments to re-confirm the importance of filed information about the German working population. As this chapter indicated, state executives quickly established an emergency purpose for the files. After all, the occupational and personal information on the files, however faulty they were, was the only informational source that could support the allocation of civilian labour in case of war. This chapter demonstrated that even after the first emergency legislation draft bill in 1960 failed to acquire the majority of votes in parliament due to excessive plans to extend the power of the state executive in case of emergency, the files continued to be discussed in connection with possible emergency purposes. Leading BAVAV officials Kästner and Schönefelder – both first generation labour administrators familiar with the file system since the 1930s – played a key role in mediating the debate between the BAVAV self-governing bodies, the ministerial bureaucracy and the Parliamentary Committee of Labour. As the chapter indicated, Kästner and Schönefelder eventually assented to the decision by the BAVAV self-governing bodies to discontinue the files. The parliamentary and political discussions on West German emergency legislation would continue until May 1968. This time, the German Parliament with the votes of the first Grand Coalition between the Social Democratic Party and Christian Democratic Union approved amendment of the *Grundgesetz* by the Emergency Acts (Schneider 1986). By then, as I show in Chapter 9, the employment files had been overtaken by statistical and technical developments and had lost their purpose as the technical-informational basis of federal emergency legislation.

This chapter also documented a simultaneous double effort to establish a sound administrative basis for the future G-statistics. G-files were to be adjusted and

embedded in new legislation on data capture. I showed how BAVAV administrators, supported by BMA and BMI departments, sought to re-vitalise the data exchange procedure that had been interrupted in August 1954 with the decision of the BAVAV administrative board (Chapter 4). I argued that these efforts – a continuation of earlier such attempts in the 1950s – were meant to bring the quality of information in line with the mobility of employees and their work statuses. Commuters across labour office districts had in particular proven too elusive to be captured in an equivalent relationship between statistical counting, administrative coding, and individual economic activities. I showed that labour administrators were particularly interested in drawing together the administrative and institutional pre-conditions necessary to get information on current place of residence (names, deaths, and moves) as well as on the place of work (occupation, skills, education). These efforts were interpreted as a remedy for the increased spatial discrepancy between individual place of legal residence and place of work. As shown, the data exchange procedures in spring 1964 failed because of the resistance by *Länder* Ministries of the Interior. They considered the StBA *Mikrozensus* to deliver sufficient statistical data.

With regard to the new legislation, I showed how BMA administrators recognised the advantages of a standardised, legally binding and extended duty of disclosure, but feared parliamentary control, notably by the Parliamentary Committee of Labour, whose members opposed a new paragraph on data capture, especially since the employment files, for which §53 was the legal foundation, were to be abolished. I showed how German ‘statistical legalism’ (Chapter 3.5.1) dictated a ministerial draft bill on a purely statistical law as the only lawful route out of these politico-juridical constraints. This draft bill, however, also foundered on the resistance of legislative bodies, putting the G-files on the verge of abolition. Whilst the G-files were adjusted between October 1963 and early 1965, this chapter revealed that the BAVAV continued to exist without a proper basis in labour statistics.

This chapter could only briefly take up the broader developments underlying these issues (see Chapter 6). The mobility of human labour and the concomitant redefinition of economic spaces arguably affected the territorial anchoring of

economic activities thus shaking up the geometry of economic spaces (Brenner 1995). Without the help of registries, the local labour office district as a framework of policy activities directed at the economically active, inscribed in administrative boundaries, proved inappropriate to cover the larger and more fluid economic space in which human labour was moving. Even as a representative sample, the intricate production process of the envisioned G-statistics proved too slow to keep up with the complexity of human economic activities across a national space.

This chapter interpreted the opening of ‘black boxes’ of employment measurement between February 1965 and April 1966 as essentially fuelled by ‘insider uncertainty’ (Mackenzie 1996). A further episode in the intricate relationship between the BAVAV and StBA statistical infrastructure of employment, the comparison of G-files and G-cases in the *Mikrozensus*, proved how difficult BAVAV officials found it to imagine a statistical infrastructure beyond the filing system – despite of all its faults. At the same time, I showed in detail how internal disagreement and competition between StBA and BAVAV labour statisticians – pushed by the fiction of one correct figure held by some state officials – led to immense efforts to compare a selection of G-cases from both statistical systems. As shown, the results eventually destroyed the credibility of the G-files as a sound base for a representative labour statistics. The G-statistics as the main source of the BAVAV statistical infrastructure were never published. By 1966, the way was cleared for a new statistical infrastructure on behalf of the BAVAV (see Chapter 9).

The final section of this chapter accounted for another space of change simultaneously affecting West German labour statistics: the ‘manpower revolution’ and the extension-cum-scientisation of labour market observation that came with it. Two particular dimensions of this development were examined.

First, examination of the circulation of OECD manpower policies showed that West German statistical authorities were sceptical about the nature and usefulness of manpower forecasts (Chapter 7). This chapter revealed how active labour market policies and the statistical requirements that came with them were embraced by trade unionists within the DGB. Beermann and Markmann’s efforts especially support previous research that suggested that international sources on manpower policies found their way into the German labour administration through

trade unionists and their membership in ILO and OECD (Altmann 2004). My findings show how Markmann and Beermann – whom we encountered in Chapter 7 as rapporteur to the OECD trade union seminar on Active Manpower Policy in September 1963 – demanded more and better statistical material and extended legal powers for the BAVAV. For both, an active labour market policy was equivalent to an intensification of labour market observation through research and statistical data. It is beyond the scope of this chapter to assess the extent to which international resources informed trade union initiatives, and to what extent such knowledge transfer affected West German policy formulation and legislation, namely, the 1969 Employment Promotion Act. What this chapter showed, however, is that OECD initiatives constituted one important resource for DGB officials to press for more comprehensive labour statistics and labour forecasts in the context of a wider scientisation of labour market research. As was shown, both BMWi and BMA ministries received DGB suggestions in December of 1965. Both their responses were in the affirmative and pointed to the necessity of more comprehensive statistical material for labour market and occupational research.

Second, this chapter explored how Schmidt liaised with BAVAV officials in an attempt to press forward both the establishment of the BMA sub-department ‘Occupational Classifications’ under his leadership, and occupational and labour market research as an emergent governmental field. I showed that his efforts were instrumental in linking labour market research as envisioned by the BAVAV working group ‘Economic Structural Change’ with broader issues of occupational classifications and descriptions in train since the late 1950s. These findings invite us to re-assess Altmann’s evaluation of the BMA’s passive role in the establishment of the IAB (Altmann 2004). The chapter shows how the BMA from early 1962 assumed administrative responsibility for the entire task of gathering ‘occupational information’ in the attempt to create a conceptual-classificatory system for the entire German working population. Even although the efforts to establish a ‘central archive for occupational studies’ under BMA auspices eventually failed, this chapter argued that the imperative to coordinate and institutionalise occupational knowledge as a ‘state science’ crucially fed into the preparatory stages of the IAB to be established in April 1967. In this context, forecasts of labour requirements by profession were

taken up positively. These shifts, as will be shown in the following chapter, crucially shaped discussions on future labour statistics from 1966 onwards.

9. Towards a New Statistical Infrastructure of Employment 1967-1973

9.1. Introduction

This chapter further scrutinises those voices critical of the miserable condition of labour statistics during the 1960s, and outlines some of the political and statistical-technical debates connected with a new statistical infrastructure of employment. Further to the DGB's enthusiasm for active manpower policies and the concomitant pressure for new hitherto inexistent statistics (see Chapter 8.5), various actors at the boundary between the federal government and official statistics, and between the scientific and wider public, will be shown to have been involved in contesting the official statistical infrastructure of employment. The result was a particular space against which the labour administration was forced to legitimatise its actions. The chapter shows how the BAVAV statistical service was forced to estimate unemployed numbers on the basis of the 1966 *Mikrozensus* figures and how it embarked on a range of makeshift statistics. The issue of 'statistical gaps' is further examined against the backdrop of the 1969 Employment Promotion Act as a result of which statistical observation of the labour market was supposed to expand in the wider context of the 'planning euphoria' of the 1960s (see Chapter 3.8.1). This chapter reveals how, from the summer of 1969, a group of labour economic experts, in the absence of a functioning labour statistical infrastructure, planned to gather data from the 1970 StBA population census.

The chapter examines the establishment of a new statistical infrastructure of employment within the BAVAV (since 1969: BA). The preparations took place within a small circle of BMA, StBA, IAB and BAVAV economists, labour administrators and mathematicians from March 1967. I argue that these deliberations were marked by two interlocked, albeit partly contradictory, discursive modes. First, from the outset, an emphasis on the economy and rationality of a new statistical system urged labour administrators to use already existing infrastructure. Second, manual human labour was to be avoided for the establishment and maintenance of the new infrastructure. As I show, the possibilities of electronic data processing entered the contemporary 'space of experience' and concomitantly expanded the 'horizon of expectation' against which these statistical, technical and legal-administrative issues were discussed (Koselleck 2004b). In tracing some of the

political and technical issues involved, this chapter shows that simultaneous efforts within a parliamentary sub-committee 'Data-processing and Social Security' to introduce insurance numbers and insurance accounts for those covered by pension insurance provided a welcome opportunity to bridge most of these concerns.

The chapter also addresses the practicalities of an unprecedented data capture activity planned and put into practice by a handful of BMA and BAVAV mathematicians. The idea of an integrated reporting system connecting pension insurance agencies, the BA and employees and employers was pivotal for the databases to be gathered and kept up to date. The establishment of triple databases was meant to enable the scalar and economic differentiation of the envisaged statistics. These databases contributed to remedying earlier statistical and administrative problems in procuring regional data and to getting a grip on individual mobility across large space (see Chapters 4, 6, and 8). As this chapter indicates, however, the establishment of an 'insurant file', a 'business file', and a 'place file' required forms of administrative pragmatism and procedural objectivity, and involved issues of credibility, anonymity, and trust analogous to previous such efforts. As this chapter reveals, the main difference with respect to previous administrative ordering attempts was that the information required from the outset needed to be numerical and machine-readable. Such coding, other than hand-written information on files, allowed for synchronised and hence quicker data circuits (based on magnetic tapes and optical character recognition). As this chapter argues with respect to the example of occupational classifications, however, the numerisation of information raised analogous problems of legibility and hence accuracy at the source of data gathering.

The chapter accounts for two further issues in connection with the new statistics. In 1970, the issue of whether or not a representative sample was appropriate as the basis of the BAVAV labour statistical system cropped up again. As this chapter documents, 'statistical gazes' and the question of how to account for their veracity differed between BMA labour administrators and mathematical statisticians in a manner analogous to earlier such debates (see Chapter 6). This time, however, I show how the promise of new forms of data gathering and an intensified state action towards labour and the economy outweighed the usual arguments in favour of

sampling: economy and better error control. At the same time, as this chapter shows, the new statistics were embedded in a modernist language of rationalisation and democratic right to information for the social citizen. The expansion of social security systems and governmental responsibility for the working population was not only believed to be possible with the help of electronic data processing. This very invention, I argue, also provided for its necessary legitimation. Administrative efficiency was believed to further improve with electronic data processing; comprehensive information availability to everyone involved justified its use under the condition of anonymity.

The empirical material for this chapter is drawn from the Federal Archive Koblenz and the SEAD-BA in Mannheim. Analysis of published specialist and grey literature complements the archival analysis.

9.2. Legitimacy Contested: Criticism towards BAVAV Labour Statistics and their Makeshift Character

In late November 1966, the German Council of Economic Experts (SVR) in its third report put further pressure on the BAVAV executives to do something about the employment statistics. Slightly alarmed by the fact that the overall figure of employed persons might not have increased for the first time since 1948, the unreliable statistical basis for their estimated cyclical analysis made the economic experts more uneasy than in previous years. Not knowing the number of employed persons (*abhängig Beschäftigte*) for the second consecutive year weighed heavily on the expert's productivity measurements whilst the patchy short-term statistics available on the employment situation were considered insufficient. The *Mikrozensus* had not yet won the Council's full trust due to a time delay and its small sampling ratio (Sachverständigenrat 1966/1967: 80). The BAVAV was obliged by federal law (§202 AVAVG) to maintain labour market statistics. Interestingly, apart from reference to legal duties, the Council also called upon the BAVAV to help with the so-called 'productivity-oriented labour market policy' (*produktivitätsorientierte Arbeitsmarktpolitik*): the expansion of 'placement services on an inter-regional scale with the help of modern data processing techniques' (Sachverständigenrat

1966/1967: 95) in the context of ‘manpower planning’ (ibid., English in original). At this point, the SVR also suggested renaming the BAVAV a ‘Federal Office for Employment and Structural Policy’ (*Bundesamt für Beschäftigungs- und Strukturpolitik*), a suggestion shortly overtaken by events.⁴¹⁵

Informational gaps were not only deplored with regard to the existing obligations to observe and analyse the labour market, but were also evaluated against the backdrop of manpower mobility for the purpose of economic productivity (Sachverständigenrat 1966/1967: 95). Manpower mobility had come to be interpreted as a central part of labour market policy in the immediate after-war period already, but, as we have seen, gained new momentum during the 1960s growth policies (chapter 7.2). As for the German case, §38 AVAVG placed the core tasks of the BAVAV – placement service, vocational training and placement of apprentices – which could all be understood in connection with labour mobility, within the frame of the government’s economic and labour market policy.⁴¹⁶ Enactment of §38 AVAVG rested upon the insight, as Draeger, Buchwitz et al (1961) commented, that ‘the tasks of placement services can only be tackled successfully insofar as actual economic and labour market political conditions for the employment of both employers and professional newcomers are available or created’ (Draeger, Buchwitz et al. 1961: 220). In the view of the 1966 SVR report, interregional manpower planning for the purpose of economic productivity again became an issue within the realms of possibility opened up by modern electronic data processing.

The BAVAV executive board committee for legal and administrative issues, in preparation of a statement on the SVR report, conceded the SVR’s regret with regard to the statistics as ‘technically valid’ (*sachlich berechtigt*),⁴¹⁷ but referred to the proceedings of an important meeting among BMA, BAVAV, and StBA statistician in March 1967 where the idea of new employment statistics was

⁴¹⁵ Executive and administrative board protested against this suggestion in a letter to BMA Hans Katzer: In the wake of a new name, the BAVAV’s status as a public corporation on the basis of self-administration (*Körperschaft des öffentlichen Rechts auf der Grundlage der Selbstverwaltung*) would be endangered. See BAVAV Vorstand and Verwaltungsrat to the BMA Hans Katzer, betr.: Drittes Jahresgutachten des SVR, 17 January 1967, in BAK B149/6123. By summer 1967, the proceedings of the AVAVG redraft revealed that the BAVAV was to be re-established as a Federal Labour Office (*Bundesanstalt für Arbeit*).

⁴¹⁶ § 38 AVAVG (April 1957) reads as follows: ‘Im Rahmen der Wirtschafts- und Arbeitsmarktpolitik der Bundesregierung hat die Bundesanstalt dahin zu wirken, daß die Arbeitslosigkeit und Mangel an Arbeitskräften vermieden oder behoben werden. Die Bundesanstalt soll dabei, soweit erforderlich, mit anderen öffentlichen und privaten Stellen zusammenwirken’. See Draeger, Buchwitz et al (1961: 219).

⁴¹⁷ BAVAV, Sitzung des Vorstandsausschusses für Rechts- und Verwaltungsfragen am 6. und 14./15. Juni 1967, 22 May 1967, in: BAK B149/6123.

proposed. The BMA departments I and II signed onto the BAVAV evaluation without additions.⁴¹⁸

In 1966, the Bavarian Ministry of Labour and Social Provision⁴¹⁹ edited a brochure ‘Problems of the Bavarian Labour Market – an Inquiry into Labour Market Events of 1966/67’ (*Probleme des Bayrischen Arbeitsmarktes – eine Untersuchung des Arbeitsmarktgeschehens 1966/67*) deploring the ‘statistics’ unproductiveness’ (*Unergiebigkeit der Statistik*), and, consequently, forcing the BA, department IV to make a statement. This statement broadly conceded that labour statistics were insufficient in the face of ‘modern economic and labour market research’.⁴²⁰ At the same time, the complexity involved in establishing a new statistical infrastructure was pointed out: it would not only require ‘a lot of money’ (*sehr viel Geld*), but also ‘awkward obligations’ (*unangenehme Verpflichtung*) for all those under the statistical eye.

In September 1967, in the face of rising unemployment figures in the autumn of the previous year, the German weekly *Stern* published a report entitled ‘Unemployment 1967’ (STERN 1967). On the basis of a survey commissioned by *Stern* to infratest GmbH & Co., and analysed by the Institute for Social Research in Munich (*Institut für Sozialwissenschaftliche Forschung e.V.*), this report set out to answer ‘existential questions’ (*lebenswichtige Fragen*, STERN 1967: IV) and enlighten the reader with the ‘whole truth’ (*ganze Wahrheit*) on the problem of unemployment. In a previous report on job prospects and vocational training (STERN 1963), the journal demanded – just so in times of prosperity and economic boom – a timely preparation for eventual future unemployment: ‘That does not mean that unemployment is going to knock at our door tomorrow! But provision has to be made’ (STERN 1963: 23). Both, the analysis of present unemployment and provision for future developments, required the closure of the ‘information gap’ (STERN 1967: 3) through better statistics and the establishment of labour or manpower economics in Germany (STERN 1967: 6f.). Finally, Alois Degen, who has already demonstrated his influence in his capacity as president of the LAA North-Rhine Westphalia

⁴¹⁸ See BMA, department Ib2 (Dr. Burghardt), betr.: Stellungnahme für die Sitzung des Vorstandsausschusses für Rechts- und Verwaltungsfragen, 29. June 1967, in: BAK B149/6123.

⁴¹⁹ Bayrisches Staatsministerium für Arbeit und Soziale Fürsorge.

⁴²⁰ See BA, IVb1 (Redlich), Unterlagen für eine Pressebesprechung, Aufgabe und Aussagefähigkeit der Arbeitsmarktstatistik, 14 Mai 1968, in: BAK B119/2268.

(Chapter 6.3), stated with reference to the statistical lag that ‘no market is as untransparent as the labour market’.⁴²¹ Werner Karr, member of staff of the IAB, gave this statement numerical form: ‘65% of the German labour market cannot be statistically illuminated in the short term. This is the case for agriculture, forestry, parts of the manufacturing industry, trade and transport, and services’ (Karr 1968: 100).

Although the institutional settings against which these remarks were made were different, they all cohered around a common reference to statistics as an appropriate means to render the labour market and the economy more transparent and so manageable. The criticism paradoxically shows that the idea of a clearly definable and measurable work force or number of unemployed was firmly integrated into the cognitive network of common representations of the labour market. The question was just how to ‘close the gaps’ and institutionalise the new statistics. The respective BAVAV and BMA administrators were well aware of these contestations by experts and the public, at a time when the BAVAV was operating practically without the ‘possibility of self-observation’ (*Eigenbeobachtungsmöglichkeiten*).⁴²² Parts of its efforts to establish ‘modern’ employment statistics were linked to broader attempts to reconfirm its legitimate status within the labour administration. Previous debate on the future of the employment statistics had already been partly structured by questions of (scientific-technical and political) legitimacy (see Chapter 6).

The BAVAV, in the absence of indicators of employees’ numbers – previously derived from employment files – had meanwhile to look out for new ways both to estimate the number of unemployed people and to calculate the unemployment rate, as required by §202 AVAVG. For that purpose, Herberger (head of StBA department VIII B) approached the BAVAV in February 1967 and agreed to use the April 1966 MZ figures of employees (employed civil servants, *Angestellte* and workers) for the federal territory and the *Länder*.⁴²³ For the first time, results of a one percent random sample were used to procure official labour market statistics – a procedure with

⁴²¹ Alois Degen in an interview with *Die Welt*, 28. September 1967.

⁴²² Rudolf Schmidt (BMA) in a letter to Dr. Henschel, 30 June 1965, in: BAK B149/8600.

⁴²³ StBA, VIII B (Herberger), Note on Besprechung in der BAVAV, 10 February 1967, 27 February 1967, in: B128/4107.

which none of the statisticians involved could be satisfied, not least because the *Mikrozensus* did not reach down to the level of labour office districts. Here, figures had to be estimated: the BAVAV statistical service in this case referred to the ratio of employees of the resident population obtained during the 1961 population and occupational census. These figures were to be multiplied by more recent population figures updated by the StLÄ on the basis of which the unemployment rate was merely estimated. The entire changeover was only operable on the basis of the new unemployment rates. Those, with the MZ figures as their basis, were not expected to alter from previous calculations. And where indicators had to be estimated, as in the case of the local labour office districts, Hans Komo (head of BAVAV department IV) simply prohibited the LAÄ from publishing the figures, with the effect that the numerical rearrangement stayed invisible behind the graphic depiction of the unemployment rate.⁴²⁴ Any comparative calculations with regard to periods prior to January 1967 were prohibited indirectly. Local labour statisticians could consider the idea of testing the diagnostic value of the new unemployment rates by comparison with previous rates. Major deviations, however, were simply not expected with the consequence that such comparisons were deemed unnecessary in the first place. Here, too, administrative concerns outweighed issues of statistical publication.

9.3. The Establishment of a New BAVAV Statistical Infrastructure of Employment

The first steps towards new employment statistics were announced during a meeting of leading personnel of the German labour administration in January 1967. Under the chairmanship of BMA minister Hans Katzer⁴²⁵ the future of employment statistics was touched on in the context of more general labour market issues. *Ministerialdirigent* Knolle, in his capacity as head of sub-department Ib, then

⁴²⁴ BAVAV, IVb2, Express letter to the LAÄ, betr. Statistik der Arbeitsvermittlung, Berechnung der Arbeitslosenquote, 28 March 1967, in: BAK B119/2271. However, a footnote should point out the estimated character of the underlying figures.

⁴²⁵ Altmann (2004: 134f.) points out that Katzer showed a much greater openness to an extended labour market policy than his predecessor Theodor Blank. In his contribution to Chancellor Erhard's governmental statement, he mentioned labour market policy in the wider context of a 'modern societal policy' (*moderne Gesellschaftspolitik*).

suggested consideration of employment statistics ‘in a smaller circle’ (*in kleinerem Kreis*).⁴²⁶ A first meeting was held in March 1967 among representatives of most of the BMA departments, the StBA and the BAVAV. There was agreement that new employment statistics were needed. Debate arose, however, on the question of what was to be gathered and how to get hold of the data. With regard to the latter point, views centred upon the ideas brought into play by leading BMA personnel in late 1966. Possibilities of extending the MZ sample were considered, to increase the accuracy of present databases, even if, as StBA representative Herberger warned, a larger basic population would be placed at the debit of the speed with which data was interpreted (*Auswertungsgeschwindigkeit*) and hence affected the figures’ up-to-datedness. A business card system (*Betriebskartei*) was considered the comparably best option.

Business files as a material basis of the industrial census had existed since the early days of the *Reich* labour administration. Originally, they were designed for labour market observation. Since 1933, these censuses were undertaken by the *Reich* Statistical Office (Galland 1956: 253f.), before gaining status as an important data basis for the evaluation of economic activities (number of employers, turnover, salaries and wages paid, working hours etc.) in the manufacturing industries in the post-war period. Other than in labour statistics based on the individual as the basic element, industrial censuses based their statistical inquiries on businesses as the ‘smallest legal unit to conclude contracts, make up balances and do book-keeping’ (Hüttner 1972: 97). The post-war business file had been established within the StLÄ with the help of Chambers of Industry and Commerce, Employer’s liability insurance associations and Chambers of Trade (*Industrie- und Handelskammern, the Berufsgenossenschaften and the Handwerkskammern*). It contained 72 000 businesses by the mid-1950s (Galland 1956: 282) and 80 000 by the early 1970s (Hüttner 1972: 97).

The meeting in March 1967 suggested the monitoring of results of the employers’ notifications (which were in any case slow despite reminders, see Chapter 8.2) by means of a separate file system which would use statutory health insurance agencies (*Krankenkassen*) as collecting agencies for all employees paying

⁴²⁶ Note about a meeting with federal minister on 23 January 1967, in: B119/2271.

unemployment insurance. Even though the problem of individual mobility across different spaces of statistical measurement might be solved by a new file system based on immobile entities (businesses), there were other practical objections. Large towns were basically not covered by its statistical gaze. Businesses with fewer than ten employees were usually freed from the statistical duty of disclosure (*statistische Auskunftspflicht*) according to §10 of the 1953 Federal Statistical Law. Thus, where an individual file tended to lag behind the individual movements and fluctuations and led to an exaggerated capture, a business file posed the opposite problem, namely an underestimation (*Untererfassung*) due to patchy data-recording procedures. Moreover, the establishment of a control file via health insurance agencies would not guarantee a breakdown by regions and beyond as was claimed by the BAVAV.⁴²⁷ The meeting terminated without any further concrete conclusions drawn. By the time discussions resumed late in 1968, issues of practicability were still at the forefront. On the initiative of the BMA, a working group for employment statistics (*Arbeitskreis Beschäftigtenstatistik*) had been established in December 1968 convening for the first time in January 1969.⁴²⁸

Taken as a whole, the archival records suggest that the labour statistical debates quieted down during 1967 and 1968 until their resumption by the working group mentioned above. The BMA efforts mainly focused upon the discussions around the Battelle study ‘Investigation into Methodical Prospects of Quantitative and Qualitative Forecast of the Labour Market in the FRG’ commissioned in July 1967 in the attempt to meet the increasingly noticeable demands to forecast manpower requirements and labour market developments. Beyond the legitimating purpose that explains the commission of the research project to an institute of questionable reputation in the field of social policy, the practical purpose was to obtain as yet nonexistent data which was needed to enact labour market forecasts. Several attempts on behalf of the BMA and the Battelle Institute to explore the worth of statistical raw material at the StBA testify to the nature of the situation.⁴²⁹

⁴²⁷ BMA, Ib2, Niederschrift der Besprechung über eine Statistik der Beschäftigung on 14 March 1967, 22 March 1967, p.6, in: BAK B149/6123.

⁴²⁸ BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, in: BAK B119/4655.

⁴²⁹ See BMA, Ib2, Brief Bundesminister an StBA Präsident, betr. Forschungsauftrag Vorausschau des Arbeitsmarktes des Battelle-Instituts 28. Juli 1967, in: BAK B149/5723; BMA, An den Präsidenten des Stat. Bundesamtes, betr. Mikrozensus, Grundprogramm, Frage Nr. 38 Beruf, Februar 1968, in: BAK B149/8478 and

Two aspects epitomised the discursive space of the January meeting of the working group for employment statistics as well as the workings of the ministerial bureaucracy more broadly. First, as Chairman *Ministerialdirektor* Frank (see Appendix) emphasised regarding the future of the employment statistics and the data gathering procedures involved: ‘Any method is preferable which does not presuppose a drastic change with regard to the previous state of affairs’. In the sensitive field of statistical data gathering, changes should ideally go unnoticed wherever the public was concerned. Discussions were mostly a question of ‘method’, the purposeful correspondence of means and ends. Public discussions were to be avoided and costs contained by taking the already established administrative-statistical path. Secondly, and partly in contrast to the previous statement, in order to procure the data sought, as BMA *Ministerialrat* Pappai remarked, ‘manual activities should be generally avoided’. Manually-filled insurance cards or the old-style employment file cards were considered obsolete with regard to the new possibilities of electronic data processing.

In the light of these statements, first, the business file was swiftly rejected by BMA statistical expert van Randenborgh. The file system would have necessitated putting in place a ‘considerable apparatus’, would have been costly, and, under the pre-condition of additional notifications, were thought unlikely to stand the test of the legislative process.⁴³⁰ Most importantly, the files would have been maintainable only through cross-institutional cooperation among BAVAV organs, StLÄ and health insurance agencies, a scenario believed to be too elaborate for such statistical operations. Data gathered by statutory health insurance agencies – containing individual data on all employees covered by compulsory insurance – was anyway fragmented across the national territory since German Public Health Insurance Companies (*Allgemeine Ortskrankenkassen*, AOK hereafter) worked with different schemes asking for different individual details. As Chairman Frank remarked, a fraction of the unemployment insurance contributions (*Arbeitslosenversicherungsbeitrag*) then to be collected under the auspices of the BAVAV had already been rejected by the BAVAV executive committee. What

further archival evidence of conversations between BMA administrator van Randenborgh and StBA statistician Herberger between March and May 1968 in BAK B149/8478.

⁴³⁰ BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.2, in: BAK B119/4655

seemed possible and desirable from a ministerial-administrative perspective – even though unemployment insurance bodies did not ask for information on the profession wished for by everyone involved – was not achievable, as Frank put it, given the ‘political resistance’ (*politischer Widerstand*) expected.⁴³¹

Against the backdrop of the initial situation according to which administrative effort (costs and legal amendments) needed to be kept to a minimum and the requirements for a new statistics were to be met, discussions already under way within the parliamentary committee of social policy (*Sozialpolitische Ausschuss des Bundestages*) were a welcome opportunity to get around these issues. The committee established a sub-committee ‘Data processing and Social Security’ (*Datenverarbeitung und soziale Sicherung*) concerned with the introduction of insurance numbers and insurance accounts for those covered by pension insurance. The idea, as envisioned by the BMA administrators, was to couple the data-gathering procedures necessary for a new employment statistics with the collection of premiums (*Beitragseinzugsverfahren*) under the old age pension scheme. BMA senior administrator Pappai revealed the administrative stratagem involved: ‘[Pappai] insisted that this procedure could bank on the support of all factions in the parliament since there is an interest in disposing of all data at all times in order to send out periodic statements to all those covered by pension insurance’.⁴³² This suggestion adhered to the principle of statistical rationality in its additional inquiries as primarily embodied by the inter-ministerial committee for the rationalisation of statistics established in 1951 (Metzler 2005: 158f.). As was repeatedly expressed by StBA representatives, a data-gathering procedure already planned within the space of a parliamentary expert committee was now to be tapped for labour administrative purposes. As I show below, the new insurance account was directed at the public, the insured working population, primarily by reference to a right to publicity: ‘Account statements’ (*Kontoauszüge*) were to be generated without any further effort on behalf of the insured and sent out periodically to the customers – whether they asked for them or not. Publicity as the other face of the data gathering envisioned served

⁴³¹ Ibid.: 3

⁴³² (Entire quote) ‘Dr. Pappai weist mit Nachdruck darauf hin, daß dieses Verfahren mit der Unterstützung aller Fraktionen des Bundestages rechnen kann, weil ein Interesse besteht, jederzeit über alle Daten zu verfügen, um den Rentenversicherten periodisch ‘Kontoauszüge’ schicken zu können’, in: BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

actually as its legitimising principle; what was believed necessary within the administrative realms was going to be justified not only with reference to efficiency arguments (better and quicker capture), but through publication of data for the consumers to follow up on their status, and hence on what pension to expect at the time of retirement.

The data-gathering plans for the pensions system as introduced by BMA mathematician Paul Winkler,⁴³³ was as follows: At a certain cut-off date, all insurance cards were to be invalidated and handed in by the employer – after having updated or amended address and remuneration details where necessary – to the local labour office. In a huge ‘data capture activity’ (*Datenerfassungsaktion*, Winkler 1970: 150) these insurance cards (*Versichertenkarten*) – hand-written as they were – would be punched, randomly double-checked and transferred in the form of punched cards to the state insurance institutions (*Landesversicherungsanstalten*). Simultaneously, local labour offices were asked to assign numbers to every business by economic branch and region (address and a business code number, *Betriebskennziffer*). Pension insurance institutes transferred the data to magnetic tape; issued an insurance number for each card and printed off a ‘check book’ (*Scheckheft*), which every person would need to hand in to their respective employer. The insurance number was the necessary distinctive feature (*Identifikationsmerkmal*) in order to be able to assign the respective information. Crucially for future employment statistics, magnetic tape copies containing the individual information would be passed on to the BAVAV. Employers were to play a major part in this data circuit not only because they were supposed to hand in the old insurance cards, but also because they were expected to update the check books by the end of every year or at the point of employment termination and hand them in to the pensions insurance institutes where the updates would be loaded onto the magnetic tape. Through this mechanism, an up-to-date data basis for the envisioned employment statistics should be guaranteed. The question was just how employers could be

⁴³³ Due to time constraints, I was unable to incorporate archival records of the parliamentary sub-committee housed in the parliamentary archive in Berlin. Thus, any conclusions drawn with regard to the debates therein remain necessarily preliminary and will have to be verified at a later stage. Paul Winkler seemed to have had a crucial position within both spaces of state administration – the executive and parliamentary expert system – as his chairmanship of the BMA working group and several publications between 1969 and 1970 testify (e.g. Winkler 1970). At the very least, he was leading the underlying technical and operational discussions. Dr Pappai was another central figure within the BMA; see indications and publications mentioned in Sziegoleit (1971: 35).

forced by, as LAÄ president Siebrecht put it, a built-in ‘thorn’ (*Stachel*) to hand in the insurance cards in the first place.⁴³⁴

The procedure was supposed to clear up, as Winkler put it, six to seven million file cards put annually into the ‘gigantic archives’ (*Riesenarchive*) of the insurance agencies where they, according to Winkler, ‘disappeared even though everyone knows that their content will have to be collected by hand in a few years with considerable effort’ (Winkler 1970: 151). Manual work, the file card and the filing cabinet or archive had become obsolete in the technical dreams of the practitioners. In the light of the electronic machines, it was just ‘unbearable’ (*unerträglich*) that millions of file cards were lingering in archival darkness – unbearable not only from a technical point of view since the circuit between stored and required information was considered too long. The slowness of hand-written data processing was considered an unbearable deficit with regard to the disclosure of information to which the individual in the course of his working life was considered to have a right. Whereas the former file card remained hidden until retirement behind the archival walls of the insurance agency, electronic data storage allowed the insured to ‘instantly’ keep track of their status: any gaps in their payment of premiums caused by illness or the like was reported instantly during their working life and not ex post at the time of retirement thus avoiding ‘annoying delay’ (*ärgerliche Verzögerungen*).

The resources demanded were immense. For eighteen million insurance cards, an estimated 800 ‘female punchers’ (*Locherinnen*) and 400 ‘female inspectors’ (*Prüferinnen*) were required over a six-month period excluding an undefined number of ‘signers’ (*Signierer*) concerned with single cases, such as returns due to wrong addresses or the like. Further, supervisory personnel had to be added.⁴³⁵ During the annual meeting of LAÄ statisticians in December 1969, it was estimated that labour offices were to capture 1.15 billion digits of information from the new insurance cards.⁴³⁶ Out of roughly 17 million insured the data of only five million was believed to be transferred to the pension insurance agencies directly

⁴³⁴ Siebrecht in: BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

⁴³⁵ See BAVAV, IVb2, Sitzung des Vorstands am 20./21. März 1969, betr: Gewinnung von Unterlagen für eine ausreichend differenzierte Beschäftigtenstatistik der Bundesanstalt, 11 March 1969, in: BAK B119/4655.

⁴³⁶ BAVAV, IVb1, Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern am 16. und 17. Dezember 1969, p. 10, in: BAK B119/5008.

from companies via electronic data processing. Winkler estimated that the clearance of the old archives of pension insurance agencies containing an estimated 500 million file cards would take roughly eight years' work (Winkler 1970: 151).

For the BAVAV experts, there were other statistical and organisational issues to be resolved before the envisioned data exchange between pension insurance and labour offices could be approved. Deliberations on the new employment promotion act only planned for a 'statistical paragraph' corresponding to the former §53 AVAVG with the effect that the legal foundations of the new project were anything but secured. IAB representatives Mertens and Karr, as well as Redlich's colleague in BAVAV sub-department IVb, Hans Peter Hoffmann, pushed for more encompassing and detailed employment statistics: Even if the quasi-automatic annual stocktaking through employers' notification to the pensions insurance institutes signalled progress in comparison to the previous statistics, the data basis would still remain inappropriately patchy for the purpose of 'business cycle observation' (*Konjunkturbeobachtung*) since the lasting question of how to capture entries and outflows *during* the calendar year had yet to be solved.⁴³⁷ Further, a considerable hold-up between the receipt of the magnet tape and the gathering, interpretation and publication of the data was noted. Most importantly, only employees were supposed to be captured: civil servants, pensioners and the self-employed were not contained in the data basis. Nevertheless, BAVAV and BMA officials considered this a 'promising procedure' (*zukunftssträchtiges Verfahren*), which should be 'put into practice' (*möglichst wirksam gemacht werden*).⁴³⁸ In particular, the new employment statistics promised to be established, as in the previous system, as a side-product to administrative activities arising in connection with the insurance mechanism. Further questions of technical and operational detail were to be clarified by an expert group during meetings in early February.

During a BAVAV executive board meeting in March 1969, BMA representatives in particular were pushing for the new data exchange, whereas BAVAV members in their majority were still pondering the idea of a new institution responsible for a centralised direct debit for the entire social security system. The

⁴³⁷ BAVAV, IVb2, Sitzung der Ausschüsse 'Technischer Fortschritt und Arbeitsmarkt, 20 January 1969, p. 3., in: BAK B119/4655.

⁴³⁸ BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

board decided, however, to further the cooperation with the pension insurance institutes on the basis of the new insurance number, on condition that the BAVAV was involved in all the steps necessary for the new employment statistics.⁴³⁹ Following the decision of the executive board, a task force established between August and October 1969 comprising six officials of the pension insurance institutes and three BA civil servants discussed the technical details such as the issuance of insurance numbers per cut-off date.⁴⁴⁰ Insurance numbers for pension insurance were introduced in 1964 already, but were expanded to every insured person (pension insurance) with the so-called *Dritte Rentenversicherungs-Änderungsgesetz* from July 1969 (Sziegoleit 1971: 34). With that legislative body, the technical foundation for machine-based data gathering, data transfer, and for an integrated reporting system between pension insurance agencies and BA could be put into practice.

During the second meeting of the committees on labour market and professional research and statistics in January 1970, the BA members of the task force gave a detailed report on the proceedings so far. Questions of individual anonymity, of general coverage and the incorporation of the occupational activity exerted (*ausgeübte Berufstätigkeit*) within the new statistics were, among others, issues to be discussed within the BA self-administrative bodies. In order to obtain the statistical information sought, the BA administrators planned not only for an insurance data basis (containing individual data, such as insurance number, gender, date of birth, nationality and place of residence), but also for a 'business file' (*Betriebsdatei*, containing numbers for every business by economic branch) and a 'place file' (*Ortsdatei*, containing post codes and codes for all municipal and labour administrative spaces). The latter two were supposed to be maintained in a Central Office for Data Processing within the BA.⁴⁴¹ Only by combining the three databases,

⁴³⁹ See BAVAV, IVb2, Sitzung des Vorstands am 20./21. März 1969, betr: Gewinnung von Unterlagen für eine ausreichend differenzierte Beschäftigtenstatistik der Bundesanstalt, 11 March 1969, in: BAK B119/4655.

⁴⁴⁰ No archival records were found on the proceedings of that group convening at the BMA. Information about its existence taken from Hoffmann's report during the LAÄ statisticians' annual meeting in December 1969, see: BAVAV, Niederschrift über die Tagung der Referenten für Statistik bei den LAÄ, 16 and 17 December 1969, p. 6, in: BAK B119/5008.

⁴⁴¹ BAVAV, IVb2, Gemeinsame Sitzung der Ausschüsse für Arbeitsmarkt und Berufsforschung sowie Statistik des Vorstands und der Verwaltungsrats, 12 January 1970, p. 4, in: BAK B119/4655. The Central Office for Data Processing was founded in January 1970 for internal and external administrative work (mostly benefit payments such as unemployment benefit, child allowance) and statistical purposes. The office employed 350 persons in 1970. By 1980, the figure had doubled. From the onset, the office employed two Siemens Central Computers 4004/45 comprising magnetic tape units, magnetic disk systems, and fast printers. By 1970, over fifty punch card machines, such as card puncher, sorting machine, and card readers were employed. In 1972, the central units

so it was reasoned, would the information be sub-divided to a satisfactory level by either territorial scale or economic branch. The differentiation by region and below was supposed to remedy the problem of commuters' mobility between two labour office districts and/or between place of residence and place of work. The possibility of ordering the data either way as envisaged by the task force (which had long been desired by labour administrators; see Chapter 6.3 and 8.3) was considered 'an essential contribution to describing and analysing regional structures'.⁴⁴² Company registration numbers by respective economic branch had yet to be allocated.

9.4. Occupational Classifications Revisited

There was another classificatory system underlying the new labour statistics: Chapters 4.7 and 8.5 have shown how German occupational classifications had been a work in progress since the early days of the federal republic. Internationally, the ILO labour statistical conferences attempted to keep up with the ever-changing economic and technological environment in which human economic activities were embedded, namely by the ISCO adopted during the eleventh ICLS in October 1966 (published in 1969). In preparation of the 1970 population and occupational census, the 1961 *Klassifizierung der Berufe* was overhauled. A historical account of this administrative process of ordering and 'sorting out' would require further years study. Most importantly for the present context and from the administrators' perspective, the occupational classificatory system posed problems of statistical accuracy or, vice versa, of potential faults, since the information was to be provided outside the boundaries of the labour offices. Since individual occupational information essentially was gathered from the employees' working contexts, and at the same time it was considered 'impossible to verbally transfer the occupational information hence to be encoded at a central office' – for instance within the new BA Central Office for Data Processing – employers were obliged to fill in the forms. The practical concerns involved in the data procurement had an effect on the actual

were replaced by two Siemens 4004/150. An optical document reader was installed, too. See Schaper and Schulz (1970) and information brochure '10 Jahre Zentralamt der BA', in: SEAD-BA 3.1.1/8.

⁴⁴² BAVAV, IVb2, Gemeinsame Sitzung der Ausschüsse für Arbeitsmarkt und Berufsforschung sowie Statistik des Vorstands und der Verwaltungsrats, 12 January 1970, p. 5, in: BAK B119/4655.

nature of the classificatory system. It had to adhere to ‘an appropriate compromise between occupational information sufficiently differentiated and a code key still practicable for the employer’.⁴⁴³ The question of pragmatic accuracy, one that favoured standardisable knowledge over true knowledge, is noteworthy here as main characteristics of administrative *savoir*: the classification should at the same time not be too differentiated and ‘sufficiently comprehensible in layman’s terms’ (*hinreichend allgemeinverständlich*).⁴⁴⁴ Otherwise, the likelihood of employers providing faulty information would increase, thus jeopardising statistical accuracy. On the other hand, from the BA perspective, employment statistics as differentiated as possible were sought, which would require, however, a more detailed underlying occupational classificatory system.⁴⁴⁵ Some committee members considered insufficient the two-digit information on the occupation. Yet for occupational analysts this was sufficient, since there were plans to seek other information apart from the economic activity encoded by occupational classifications, such as ‘production stream and functional area of activity’ (*Leistungsgruppen and Funktionsbereiche*).⁴⁴⁶

Kuno Eberhard, a BA occupational expert, pointed out that the occupational classification originally was designed for experts and those who considered themselves familiar with the underlying ordering system. Since with the new check book the occupational information was supposed to be completed by employers, the classification’s comprehensibility became problematic. ‘A non-expert’, as Eberhard noted, ‘when using the ‘occupational classifications’ will often make crucial mistakes again and again, which he could not have avoided even after longer use and practice’ (Eberhard 1972: 285). The underlying problem was that the two ways of ordering the information – systematically and alphabetically – were of different value and purpose. A systematic classification followed particular logical criteria. Its sophistication was based in an inherent consistency which was only comprehensible

⁴⁴³ BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

⁴⁴⁴ BAVAV, IVb2, Gemeinsame Sitzung der Ausschüsse für Arbeitsmarkt und Berufsforschung sowie Statistik des Vorstands und der Verwaltungsrats, 12 January 1970, p. 7, in: BAK B119/4655.

⁴⁴⁵ As mentioned in Chapter 8.5, the level of detail the occupational experts could bring in depended on a whole series of other practical considerations, such as international comparability with the ISCO, the particular professional knowledge (*Berufswissen*) about methods, techniques, material properties and tools, as well as the general consistency with the categories of every-day parlance.

⁴⁴⁶ BAVAV, IVb2, Auszug aus dem Ergebnisprotokoll über die zweite Sitzung der Ausschüsse..., p. 4/5, in: BAK B119/4655

to the expert. Wherever an occupational title was not mentioned in the alphabetical order, the occupational analyst would refer to the systematic one in order to deduce the title wished for from higher classificatory groups until he arrived at the ‘correct assignment’ (*richtige Zuordnung*, Eberhard 1972: 286). The systematic order, naturally, could not be reproduced alphabetically. Thus, although that it was easier to understand and hence more appropriate for the layman, the alphabetical order would easily mislead. As Eberhard noted, ‘it separated what belongs together in a confusing way’ (Eberhard 1972: 287). Just as with the discussions on how to order the employment files, the abstract albeit easily comprehensible categories of the alphabet system conflicted with an order essentially derived from human economic activities strongly rooted in empirical evidence.

Aware of the problem following comprehensive tests with businesses, BA occupational analysts revisited the StBA alphabetical classification (StBA 1970) in 1971 in order to make the register ‘fool-proof’ (*narrensicher*, Eberhard 1972: 286). The ‘meticulousness’ with which this was done as Eberhard admitted (*Akribie*, Eberhard 1972: 286), cannot be reproduced here. It is sufficient to point out that the occupational system essentially separated all compound occupational titles (e.g. rail operations manager) to be subsequently reduced to *all* their root words. Thus, the rail operations manager could be found under rail, operations, and manager, whereby a footnote to the ‘manager’ entry would further specify its meaning in relation to *where* in the production process the respective person worked.⁴⁴⁷ Since that increased the entries considerably – not to mention the several thousands which were included for the first time – a way had to be found to reduce data elsewhere. The revised version contained 31 000 titles already (as compared to the 1970 version which had 25 000) and was not supposed to increase further since otherwise the volume would become unwieldy (BA 1973).⁴⁴⁸

Crucially, with regard to error controls (the impossibility of which put the previous statistics based on file cards on the verge of existence), the databases would allow electronic monitoring so that tardy employers might be detected and reminded.

⁴⁴⁷ Such footnotes became necessary, since ‘manager’, as well as worker, director, counsellor, or foreman were very common thus numerous designations. For ‘foreman’ alone, Eberhard noted, 600 entries existed (Eberhard 1972: 286).

⁴⁴⁸ This gratis handbook was BA self-published and contained roughly 300 pages which – in the form of a list – assigned three-digit figures to the occupational titles.

Further, since the insurance cards were to be handed in annually or more often, the forward projection of statistical errors over the years, and hence statistical misrepresentations, were essentially ruled out. Both mechanisms were thought to be an enormous advantage in comparison to the previous system: cumbersome manual control of file cards was replaced by an electronic data check; the impossibility of controlling the individual file cards' content except by large administrative counting and checking activities across various state administrations gave way to an annual comprehensive update, which allowed for a 'reliable synchronisation' of the employers' notifications on registrations and departures with the periods of statistical publications. Corresponding statistics thus were going to be fed with up-to-date information and could be expected to be published more promptly.⁴⁴⁹

As for the anonymity of the data, the administrators assured that even if the electronic database contained name and address, these were not machine-recognisable. The committees welcomed the economy provided by such statistical data gathering and re-emphasised that 'a total capture of personal data as in the previous employment files had to be avoided'.⁴⁵⁰ Only for 'career follow-up studies' (*Berufsverlaufsuntersuchungen*), as wished for by the IAB, was the disclosure of personal information considered. Later, it was revealed that the occupational information would be captured more coarsely than in the previous employment files (15 000 occupations in 30 to 40 professional positions) so that inferences about individuals could hardly be drawn even if names were known to the BA.⁴⁵¹

9.5. Issues of Representative Sample versus Total Capture Revisited

Chapter 6.4 argued that the concept of a representative sample helped to temporarily solve the conflict around the employment statistics by essentially stripping local practitioners in labour offices and municipalities of their respective spaces of thought

⁴⁴⁹ BAVAV, IVb2, Gemeinsame Sitzung der Ausschüsse für Arbeitsmarkt und Berufsforschung sowie Statistik des Vorstands und der Verwaltungsrats, 12 January 1970, p. 7, in: BAK B119/4655.

⁴⁵⁰ BAVAV, IVb2, Auszug aus dem Ergebnisprotokoll über die zweite Sitzung der Ausschüsse..., p. 5, in: BAK B119/4655

⁴⁵¹ Name and address of the individual insured were only known to the pension insurance agencies (*Rentenversicherungsanstalten*), which, however, were not involved in statistical activities towards the public. See Ergebnisprotokoll über die 20. Sitzung des Vorstandsausschusses für Rechts- und Verwaltungsfragen, 30 June 1970, in: BAK B119/4655.

and action. In May 1970, the analogous question of whether a total capture or a random sample was more appropriate as the basis of the new employment statistics cropped up again. Other than in the previous situation, the contemporary discussions were not led in a situation of conflict: No professional careers, no accustomed ways of seeing and acting were at risk of being turned over or made obsolete. Further, most labour administrators had learned to live with the fact that the federal labour office was essentially functioning without a statistical data gathering apparatus for publication purposes. There was simply no statistical infrastructure to quarrel over and hence no resources to distribute or careers to defend. The second round of clarifying the issue of representativeness rather took the form of an advisory explanation worth little more than some administrative memos (*Aktenvermerke*). These, however, involved high-ranking ministerial representatives which, arguably, suggests that the matter of how to represent the working population was important still.

The situation of the actors involved then was – albeit under different circumstances – analogous to the previous situation. High-ranking BMA ministerial bureaucrats favoured a total capture. Mathematical statisticians outside the labour administration trusted the theories of error as a credible – since ‘objective’ (in the disciplinary sense) and intersubjectively verifiable – method by which to assess the ‘significance’ of the statistics. The errors that came with a random sample were acceptable so long as they were calculable and thus reducible to a best value, which then set the limit beyond which the scholarly community would not accept any results as ‘true’. One central difference was that actors on the sub-national scales and administrative units (*Länder*, local labour offices), whether consumers or producers of statistics, did not take part in the brief scientific administrative exchange on the statistical nature of the databases. The new labour statistics were essentially initiated by federal institutions, but required all regional branches to participate. Further, the statistics were inspired by the newly established IAB and other research institutions (especially Prof Lutz’ *Bildungsforschungsinstitut*), which directed most of their scientific initiatives towards the national space. At the same time, with the new business, place and insurance files, the requirements of a statistics differentiated by

region and economic branch pressed for by local labour administrative institutions were taken as met.

During the StBR annual meeting in May 1970, the question of representativeness was a non-issue. For all members the promise of the envisaged data exchange between pension insurance agencies and local labour offices seemed to have mitigated concerns about a rational and economical statistical data gathering. The establishment of the new databases itself was after all an epitome of rational machine power notwithstanding the organisational and technical problems yet to be tackled. For StBA president Schmidt, the fact that the information gathering required ‘the interpretation of large data masses’ was merely a matter of an ‘in-time creation of machine and staff requirements’.⁴⁵² Representatives of the *Länder* statistical offices, concerned with social and cultural specificities of their regions, had been sceptical about the idea of a representative sample anyway. Willi Hufner, head of the StLÄ Hessen, was more interested in the level of capture (*Erfassungsgrad*) the statistics would have.

Ministerialrat Rosenmöller, newly-appointed head of BMA department II,⁴⁵³ similarly drew on the well-known arguments in favour of a total capture: the likelihood of systematic errors increased with the characteristics to be captured. The costs for a larger random sample if chosen over a total capture in order to remedy the problem of systematic error, increased not gradually but exponentially and so would almost balance out the efforts in resources and costs necessary for a total capture. Apart from these economical and methodical questions, federal labour administrators were mostly interested in the informational value of the statistics: the information wished for should animate ‘important political and personal decisions’ on occupational and economic conditions as far down as to the level of the county districts (*Landkreise*): ‘Without such data, regional development plans can hardly be set up adequately nor executed rationally’.⁴⁵⁴ Most importantly, for Rosenmöller the occupational, demographic, and economic characteristics of the national space were just not sufficiently homogenous in order for the ‘law of large numbers’ enshrined in the concept of representativeness to apply. As soon as the national territory was

⁴⁵² StBA, IA, Bericht über die 18. Tagung des StBR am 12. und 13. Mai 1970, in: BAK B128/4097.

⁴⁵³ Christoph Rosenmöller was formerly *Ministerialrat* at the BMWi.

⁴⁵⁴ BMA, IIa1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 2/3, 19 May 1970, in: BAK B149/34553.

conceived of as being compartmentalised in different regions, big cities or economic agglomerations, the relative homogeneity between these spaces assumed by a random sample gave way to local richness: ‘the diversity of the characteristics to capture within sub-regions does not decline – if at all – as the entire space is divided into sub-spaces’.⁴⁵⁵ Thus, even though the population of the random sample would be layered or sub-divided otherwise, its heterogeneity would still be misrepresented.

The closer the statistical eye zoomed in, the more details were drawn into its focus. A metropolitan agglomeration, even though constituted of millions of individual entities, might not show as many characteristics differentiated by occupation and economic branch as a less densely populated albeit commercially mixed area. Since future employment statistics, however, were precisely not supposed to gather demographic or consumer data, but information on the economic and occupational make-up of the German population and its spatial distribution, these socio-spatial differences had to be reflected in the statistical spaces of measurement. As the future statistics were supposed to represent the ‘individual course of work and profession’ (*individuelle Arbeits- und Berufsschicksal*) or ‘fluctuations’ i.e., entrance in employment, transition to self-employment, the onset of retirement, change of company, branch or region and so forth, the databases had to be comprehensive. In order for a random sample to capture all these possibilities, so went the BMA’s verdict, it might come close to a total capture and so that should be advocated for in the first place.

The capture of occupational titles posed a separate problem. As noted in Chapters 7.6 and 8.5, the occupational classification underlying these data had to be comparatively vague for practical reasons; not least so as not to overburden companies’ staff departments with file work. A random sample in this case would have lent itself well for reasons of work simplification. There were also methodological reasons to favour a ten percent sample. A total capture of occupational information would not rule out faults similar to those of a random sample due to ‘variable answers’ (*Antwortvariabilität*). The system of occupational classification simply could not rule out the possibility that businesses’ personnel managers would interpret its categories variably, either between the categories or

⁴⁵⁵ BMA, IIa1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 2/3, 19 May 1970, in: BAK B149/34553.

among different personnel managers for the same category. Moreover, information gathered with reference to a systematic classification (*systematisches Verzeichnis*), according to Schäffer, was particularly ‘error-prone’ (*fehleranfällig*) and so required close monitoring. For the mathematically-trained statistician, such monitoring was more likely to be undertaken more carefully in a random sample than in a total capture. Thus, following the idea of ex post controls via ‘queries’ on behalf of the labour offices, Schäffer expected that ‘the results of a ten percent sample, if based on occupational information sustainably monitored, will outweigh the accuracy of a total statistics’.⁴⁵⁶

By contrast, BMA administrators did not even think as far as the possibilities of error control. From their perspective, problems started earlier in the data-gathering process and were technical and trust-related. As a BMA note to the Minister clarified, either pension insurance agencies or businesses would need to be entrusted with the selection of data for a 10 percent sample. This posed a problem of trust as to their accuracy in filling in the information, and if businesses were to fill in the statistical information required onto every tenth card only, the problem of which cards were to be selected remained.⁴⁵⁷ The sheer technical problem of case selection – issues of accuracy aside – would counter-balance the saving of labour due to the fewer cards to be filled in.

As to the employers’ resistance to cooperate in the data-gathering process, Rosenmöller conceded that ‘the mass of the employees stays in their previous positions so that new entries proper were only required for new contracts and for reasons of operational re-deployment’.⁴⁵⁸ It was hoped that businesses would use the information they were obliged to fill onto their individual employees’ insurance cards for a ‘well-planned human resource management’ (*planvolle Personalpolitik*). For the BMA administrators, such side effects of statistical requirements (which attempted to carry the contemporary governmental ‘planning euphoria’ into the

⁴⁵⁶ Prof. K.-A. Schäffer, Universität zu Köln, Stellungnahme zur Erhebung von Berufsangaben in der geplanten Beschäftigtenstatistik, 25 June 1970, in: BAK B119/4655.

⁴⁵⁷ BMA, I und II, an Minister, betr.: Beschäftigtenstatistik, 22 May 1970, in: BAK B149/34553.

⁴⁵⁸ Ibid.: 4.

sphere of private business) was not to be ‘over-estimated’⁴⁵⁹ as an implicit labour market policy on the micro-level.

9.6. Active Labour Market Policies and Statistical Gaps

In the meantime, federal legislative bodies, public expert committees, such as the SVR, and business associations such as the *Deutsche Industrie und Handelstag* increasingly adhered to the new employment policies. This put the labour statistical infrastructure in place under tremendous pressure to deliver data necessary to plan and justify these policies. Experts from across the labour administration were feverishly trying to close ‘the gaps’ identified or, as the statistical experts put it in straightforward neo-classical language, to remedy ‘the considerable discrepancy between demand and supply’ in employment statistical information.⁴⁶⁰ The exigencies of the Employment Promotion Act (AFG) required the statistical programme to be altered or amended and new statistics to be introduced. Statistics on participants in vocational training and retraining, as well as on the promotion of work (*Förderung der Arbeitsaufnahme*) were relaunched, requiring the BA statistical department IVb to temporarily increase or re-deploy staff.⁴⁶¹ By late 1969, the BA institutional structure was expected to be functionally adapted to the new exigencies enshrined in the AFG: §6 AFG obliged the BA to maintain a labour statistical infrastructure underscoring the urge for its implementation. Accordingly, Redlich, during the annual meeting of LAÄ statisticians in December 1969, reported the establishment of a new sub-department of ‘Employment Statistics’ (*Beschäftigtenstatistik*) within the BA Statistical Service for the following year. Two more sub-departments were in the pipeline with the expectation that the statistical service ‘assume statistical basic work as a permanent responsibility necessary for its research’:⁴⁶² The sub-departments were entitled ‘Labour Market-Relevant Statistics

⁴⁵⁹ Ibid.: 5

⁴⁶⁰ Note by BMA, Ia3 (H. Schmidt), Auswertung der erwerbsstatistischen Daten der Volkszählung 1970, 1 August 1969, in: B149/34553.

⁴⁶¹ BAVAV, IVb2 (Hoffmann), Vorübergehende personelle Verstärkung des Referats IVb2 für die durch das AFG verursachten Übergangsarbeiten, 30 June 1969, in: BAK B119/2268.

⁴⁶² BAVAV, Niederschrift über die Tagung der Referenten für Statistik bei den LAÄ, 16 and 17 December 1969, BAK B119/5008.

outside the BA, Foreign and Domestic non BA-statistics’ and ‘Preparation of Statistics for Data Processing’.⁴⁶³ Thus, the sub-departments of the BA statistical service doubled from three to six by 1970.

A sub-department on non-BA statistics was established to look for inspirations abroad that might help to close the gap in the statistical infrastructure. Karr delivered a survey on foreign employment statistics (Karr 1969) This initiative from within the BA (and the IAB) to exchange information among international statistical experts, however, did not yield fruit: technical specificities and national institutional differences were insurmountable. The ‘activated public relations’ (§3 AFG) was translated institutionally into the sub-department ‘Press and Public Relations’ (*Presse- und Öffentlichkeitsarbeit*) to be directly subordinated to the president.

In the absence of a functioning labour statistical infrastructure, BMA, IAB, and BA statisticians planned from the summer of 1969 to gather labour statistical data from the 1970 StBA population census. At the same time, the future structure and outlook of the employment statistics were further elaborated. The group deliberated on the options not only for exhausting the new possibilities of electronic data processing for the population census, but also for aligning its analysis programme (*Auswertungsprogramm*) with the demands of labour market and occupational research, which since its institutionalisation in April 1967, still lacked the statistical material needed.⁴⁶⁴ As an ad hoc solution, StBA statistician Herberger offered to transfer population census data relevant to questions of employment and vocational research to an as yet-to-be-defined external institution, thus opening up the raw material to administrative and scientific interpretation. In June, a working group comprising economists within both the state labour administration and semi-public scientific institutions such as the *Institut für Sozialwissenschaftliche Forschung e.V.* in Munich, and the Battelle-Institute in Frankfurt was supposed to determine technical, organisational and financial issues in connection with the planned analysis programme. StBA representative Herberger seemed to be open to the idea that further parties – apart from those represented in the StBR – could

⁴⁶³ ‘Arbeitsmarktrelevante Statistiken außerhalb der Bundesanstalt, fremde Statistiken des In- und Auslands’; ‘Aufbereitung von Statistiken für die Datenverarbeitung’.

⁴⁶⁴ BMA, Ia3, Ergebnisprotokoll des Expertengesprächs mit dem StBA on 2 June 1969, 25 June 1969, in: BAK B149/34553.

contribute to the preparation of the StBA census. Labour market researchers still did not feel their perspective to be sufficiently represented in the StBA analysis programme. They lamented the fact that they ‘had had no influence on the design of the questionnaires or the analysis programme. The needs of labour market and occupational research were not fully satisfied’.⁴⁶⁵

The first meeting of the group in July 1969, now under the auspices of the IAB and in absence of StBA representatives, further debated the possibilities for breaking down the StBA boundaries in order to procure the data in the form they required. The group’s main purpose was to establish a ‘global’ analysis programme encompassing ‘all questions relevant for labour market, vocational and educational research’.⁴⁶⁶ In this respect, an ‘unofficial supplementary programme’ (*inoffizielles Ergänzungsprogramm*) put together by IAB, the Batelle Institute, DIW, and the Institute for Educational Research (*Institut für Bildungsforschung*, Berlin) was transferred to the StBA following the July meeting, essentially suggesting disclosure of results following the informational demands of each.⁴⁶⁷ As the proceedings further reveal, however, labour market researchers were neither confident that the StBA would fully exhaust the data, nor was ‘the science perspective’ (*die Fragestellungen der Wissenschaft*) felt to be fully mirrored in the StBA data collection programme. And even if the StBA interpretation of the data took into account the additional programme, the mode in which the results would be presented – in tables and long numerical series – was too inflexible for the scientists’ purposes. For them, statistical data in tables were nothing more than ‘data graveyards’ (*Zahlenfriedhöfe*). Moreover, the StBA working procedure was considered too slow with regard to the up-to-dateness required of the data. The StBA, so went the core of the criticism, would not ‘deliver answers on particular issues, but only preset tables which then must be analysed again’.⁴⁶⁸

For all these reasons, the expert group decided to go ahead with the population census magnetic tapes orally pledged by Herberger. In search of an

⁴⁶⁵ BMA, Ia3, Ergebnisprotokoll des Expertengesprächs mit dem StBA on 2 June 1969, p. 2, 25 June 1969, in: BAK B149/34553.

⁴⁶⁶ IAB, Ergebnisprotokoll einer Diskussion über zusätzliche Auswertungsmöglichkeiten der Volkszählung und der geplanten neuen Beschäftigtenstatistik, 2 July 1969, in: BAK B149/22046.

⁴⁶⁷ See note by BMA, Ia3 (H. Schmidt), Auswertung der erwerbsstatistischen Daten der Volkszählung 1970, 1 August 1969, p.3. in: B149/34553.

⁴⁶⁸ Ibid.

appropriate data basis for the pressing employment questions, their statistical dreams exceeded the necessary operational, technical and organisation requirements. Any additional analysis programme outside the StBA boundaries had to make available the necessary resources in terms of machines and manpower. Apart from Winkler's rough manpower budget, nobody was able to do so. Further, institutional provision for the new statistical infrastructure needed to be established: a 'Central Office for Labour Statistics' (*Zentrale Stelle für Erwerbsstatistik*) was under debate, but no decision had been taken as to the institutional co-operations: Should the central office be linked to the BA, the IAB, the BMA or even the StBA? As for the BA, even though the statistical service was expanding rapidly, the necessary electronic data processing machines had not been put in place so that there was no way to estimate the 'programming and machine capacities available' (*die freien Programmier- und Maschinenkapazitäten*). There were good reasons to use the statistical infrastructure of the StBA: that body, following the logic of officiality, was considered just a producer of the data and not a consumer, with the effect that a clash of interests could be avoided. Further, as an essential part of the legal obligation to provide data, the census data would anyway be gathered within its premises.⁴⁶⁹ The expert group, however, ruled out this option since, for the StBA, labour statistical issues were of 'lower priority' (*nachrangig*): the StBA so far 'has not shown a particular sensitivity towards the needs of science'.⁴⁷⁰

These proceedings collectively suggest that attempts to explain policy priorities within the labour administration altered as partly an effect of shifts in both generational order and professional background. What has been mentioned in Chapter 3.8. as a replacement of BMA senior personnel trained as jurists or state scientists (*Staatswissenschaftler*) by economists and econometricians by the mid-1960s, arguably extended to the labour statistical personnel. The members of the evaluation group were essentially trained as economists (*Volkswirte*) or business administrators (*Kaufmann*): Dr Laszlo Alex, head of the Battelle-Institute, had a PhD

⁴⁶⁹ See note by BMA, Ia3 (H. Schmidt), Auswertung der erwerbsstatistischen Daten der Volkszählung 1970, 1 August 1969, p.7. in: B149/34553.

⁴⁷⁰ *Ibid.*: 6.

in economics⁴⁷¹; Lutz Reyher, IAB economist, was formerly employed at the *Deutsches Institut für Wirtschaftsforschung*, and Werner Karr (IAB) was trained as a business administrator (*Kaufmann*),⁴⁷² Hans Hofbauer and Professor Lutz were sociologists by training. Lutz was managing director of the *Institut für Sozialwissenschaftliche Forschung e.V.* in Munich and worked for the trade union's Economic Sciences Institute (WWI) as an industrial sociologist between 1954 and 1965.

9.7. Electronic Data Processing as the Precondition for and Justification of a Modern Social Policy: Issues of Rationale Administration and Transparency

As outlined in Chapter 3.8, rational policy and planning since the late 1960s had a particular democratic touch to those who associated with the project of social modernisation. In opposition to some of the philosophical and neo-Marxist criticism voiced against the – in the eyes of the critics – ‘technocratic’ policies, for reformers in politics and administration, planning and rationality were sacrosanct rhetoric for governing a modern industrialised society. Walter Arendt, newly- appointed minister of social affairs and labour within the social-liberal coalition in October 1969, offered some further indication of the rationality in which the discussions on the future of the employment statistics were embedded. In a speech delivered in Munich in July 1970 at the Institute for Social Policy and Labour Law (*Institut für Sozialpolitik und Arbeitsrecht*), Arendt offered some further indications on the topic of social policy as societal policy: ‘A modern social policy cannot settle for belated corrections here and there, but determines directly through its goals and measures the societal process and the process of democratisation’ (Arendt 1972a: 10). The idea of

⁴⁷¹ Alex gained his reputation during the Battelle-study ‘Investigation into Methodical Prospects of Quantitative and Qualitative Forecast of the Labour Market in the FRG’ commissioned by the BMA in 1967. He wrote for the BMA gazette *Bundesarbeitsblatt* on ‘Problems of Labour Market Research (Alex 1968).

⁴⁷² Information on IAB employees taken from *Besprechungsunterlagen für die Sitzung der gemeinsamen Ausschüsse ‘Technischer Fortschritt und Arbeitsmarkt’ des Verwaltungsrats und der Vorstands der BAVAV*, 3 October 1967, in: BAK B149/22047. Some IAB staff were formerly employed with large industrial companies in the vicinity of Erlangen, the IAB seat, e.g. BASF Ludwigshafen and Siemens.

a pro-active social policy essentially resonated with the principles of an ‘active manpower policy’ as outlined for the field of labour market policy (see Chapter 7).

Further, the idea of rational policies – in a further speech to the *Volkswirtschaftliche Seminar* (Economics Department) at Mannheim University in November 1970 Arendt mentioned ‘rationale social policy’ (Arendt 1972b: 23) – was to orchestrate conflicts and tensions within society by way of a ‘rational decision’ (*rationale Austragung*). In this respect, the pivotal role of guideline data within different working groups and round table talks has been mentioned. The relationship between sciences and politics here is primarily conceptualised as technocratic in the sense of Habermas’ famous distinction (Habermas 1966): a technocratic concept of scientisation assumes that scientific analysis will take the place of political conflict because science is closest to truth and thus capable of pointing out the right way.⁴⁷³

Following Arendt’s reasoning, however, in association with the technocratic-scientific understanding of political processes there was also an impetus to enlightenment (*aufklärerischer*). Social policy, as Arendt understood it, had to ‘make efforts toward utmost transparency and comprehensibility’ (Arendt 1972a: 16). Through a modern social policy, the social security system was to be liberated from the ‘traits of an authoritarian state’ (*Züge des Obrigkeitsstaates*): people were to be addressed as state citizens and not as ‘social security subjects’ (*Sozialuntertan*). Most importantly for the present context, readily available individual information was considered a precondition for everyone to know about individual entitlements and obligations. The view that ‘social policy must be made comprehensible to everyone’ (Arendt 1972b: 22) was the new government’s democratic rhetoric: ‘the simplification of legislation’ (*Rechtsvereinfachung*) was considered one measure in support of this ideal. For another, ‘modern organisational means such as electronic data processing’ were believed to allow for ‘rapid and comprehensible information’ (Arendt 1972a: 16). The idea of an efficient administrative process and the democratic value of transparency appeared in combination: ‘Every insured person must be able to understand the relationship between social security benefits and their

⁴⁷³ By contrast, a ‘decisionistic’ model according to Habermas describes the situation in which scientists function as advisors to decision-makers, but the latter group makes the choice and takes the ultimate decision. The early Habermas further argued that recourse to scientific reasoning has taken over ideological functions in that political and economic interests were hidden behind scientific evidence (Habermas 1968).

contributions. The entire social administration with the help of EDP will be able to capture any data and analyse it for planning purposes at a much quicker pace' (Arendt 1972a: 16). The crucial crossing of technological efficiency and a democratic right to information is expressed in the following statement: 'Whoever denies the citizen information does not have the right to reproach him for his abusive conduct' (Arendt 1972a: 16). Electronic data processing or the computer more generally were considered resources to provide not only for good and efficient administration, but also for its necessary democratic legitimation. Information needed to be acquired 'quickly' *and* 'comprehensibly'; cases of abuse, as a matter of administrative detection, could only be followed up under the condition of information available to everyone. Administrative accuracy and the ideal of self-enlightenment within a complex social security system by information readily available were two sides of the same coin and the computer was considered the necessary instrument.

At times these statements seem to re-define key problems inherent in liberal democratic political orders under welfare state conditions – re-distribution of wealth, social and economic conditions of political freedom, equal opportunities or lack thereof – as merely a reflection of the extent to which problems could be scientifically identified and subsequently turned into information available to the social parties involved. For example, BMA mathematician Winkler turned the 'transparency of the increasingly complex system' (Winkler 1970: 149) into a cause in itself. The issue was not the extent to which the legislative bodies issued just social laws – for Winkler social justice was expressed as an 'endeavour to issue ever more balanced and 'more just' laws'. The consolidation of social justice was 'self-evident' (*selbstverständlich*) and 'necessary' (*notwendig*). What was at stake, however, was 'that one must realise that an effective social security also depends on individual information' (Winkler 1970: 149). For Winkler, the question was not whether or not new informational systems had to be implemented in order to decipher the social security system for every citizen, but rather, '*how* such a thing can be achieved and *what* needs to be done in order for the citizen to learn to understand their situation within the social security system as soon as possible' (Winkler 1970: 149; emphasis in original). For practitioners such as Winkler the

political rhetoric of transparency and informational self-determination as well as the concomitant work of electronic data processing as the *deus ex machina* was a kind of technical dream. In addressing his critics, he conceded that all this sounded rather ‘utopian’ (Winkler 1970: 152). For the mathematician, the intersection of a technical and a political discourse, however, was a vantage point from which to justify a future employment statistics.

9.8. The New Labour Statistics

The establishment of the new databases was tantamount to a scientifico-administrative project. Contemporary publications likened their description of the project to a rational operating plan as if it followed a clear *telos* in which the technical and administrative requirements merely unfolded or fell in place (Baier 1972; Hoffmann, Hoyer et al. 1972; Hoffmann and Wermter 1976; Schwabe 1976; Mayer 1977). Beyond the surface of these self-descriptions, however, everyone involved – albeit certainly animated by the ‘machine dreams’ (Mirowski 2002) of the time – knew of the monstrosity of the task. IAB director Mertens, in 1967, pressed for a new statistical infrastructure and lamented that ‘the establishment of new or the alteration of existing statistics requires a long period of discussion and preparation’.⁴⁷⁴ Head of the BA statistical department Redlich considered the new *Beschäftigtenstatistik* ‘the most challenging and risky project in the field of statistics’.⁴⁷⁵

As mentioned above (section 9.3), the entire project was initiated by the plans in the late 1960s of pension insurance agencies to introduce insurance numbers and base their registration system on electronic data processing. The new employment statistics – exploiting the administrative requirements of the social security system in an unprecedented manner – were to be inscribed into these attempts from 1969 onwards primarily for the purpose of data gathering. From the beginning, the entire project was thus inscribed in two broad albeit inter-related discursive and practical

⁴⁷⁴ BAVAV, Besprechungsunterlagen für die Sitzung der gemeinsamen Ausschüsse ‘Technischer Fortschritt und Arbeitsmarkt’, 3 October 1967, p.23, in: BAK B149/22047.

⁴⁷⁵ Dr. Redlich (Head of sub-department IVb) during the annual staff meetings of Statistics Officers of the *Länder* Labour Offices, 16 and 17 December 1969, in: BAK B119/5008.

frames: modern social policy and modern administration; electronic data processing was to act as the *signum* for both. Research can document the principal issues involved.

A triple data base had to be established: an insurant file (*Versichertendatei*) within the BA would contain specific individual data of all those under compulsory health insurance; a business file would contain the company registration number, codes for the economic branch, and the post code area key (*Postortschlüssel*) of every plant with more than ten employees; and a ‘place file’ would allow for the location of business by municipality. The latter two were also located within the BA and served to ‘regionalise’ the respective data by municipality, labour office district and economic branch. Legal norms of authorisation (*gesetzliche Ermächtigungsnormen*) within federal law had to be adapted to the new electronic data processing procedure, enabling the state administration to lay down the principles and minutiae of data gathering, notification, and reporting channels between insurance agencies, employers and employees and the labour administration.

9.8.1. The Establishment of Three Databases: Notes on the Numerisation of Facts and Issues of Legibility, Trust and Credibility

The scalar and economic differentiation of the envisaged statistics required not only data on individuals, but also on their economic activities, the economic branch and its location in space. The principle already underlay the previous employment statistics: an index of economic branches – numerically coded in a compendium – served as the bases for matching individual and working space (see Chapter 4.4). By contrast, electronic data processing required the numerical information to be machine-readable and to circulate between the different data gathering institutions. The information wished for was to be coded from the very beginning.

By the end of 1970, the establishment of the ‘place file’ – essentially carried out by local labour offices – was completed. This data basis matched the ‘official

community code' (*amtliche Gemeindekennziffer*) issued by the LStÄ⁴⁷⁶ and the code of the respective local labour office with names of more than 100 000 towns.⁴⁷⁷ The business file was legally based on a BMA decree from April 1971 and aimed at identifying by an eight-digit number all plants with employees under compulsory pension insurance. Apart from the company registration number, this database contained the respective code of the economic branch for each plant according to the new index of economic branches re-issued in 1970, as well as a postal code. In a first step, the plants within a local labour office district had to be identified. The StLÄ sent the industrial census (*Arbeitsstättenzählung*), undertaken under their auspices 'bundled by municipality' (*gemeindeweise gebündelt*), to the LAÄ. By the end of January 1971, the transfer of roughly 1.5 million paper copies and magnetic tapes (in the case of Baden-Württemberg) was completed allowing for an identification of the plants from March 1971 onwards.⁴⁷⁸ Subsequently, the statistical service of the local labour offices had to order the businesses identified either by administrative space (municipal borders, *Gemeindegrenzen*) or by economic branch. Thereby, business units were defined as a 'local unit' (*örtliche Einheit*) essentially respecting the administrative 'space of measurement' of the municipal borders already in place.

As a consequence of such administrative pragmatism, several branches of one single business could only be lumped together if located within the same municipality and the same economic branch (Hoffmann, Hoyer et al. 1972: 283). The data thus generated was then to be transferred onto machine-readable media within the BA. Ideally, the combination of both databases, place and business file, allowed for a differentiation by regional space and economic branch: The postal code of the business file and the official community code were to be decoded by the BA place file, thus converting the information of plants located within a particular municipality into that of the local labour office district.

The capture of information on businesses was concluded by the end of 1971. The BA ordered several staff meetings to take place in LAÄ in November 1971 to

⁴⁷⁶ The official community code was (and still is) a number sequence that identified politically independent municipalities or unincorporated communities (i.e. all those not part of a municipality). The code served (and still does) statistical purposes and was used by registrars in instances such as changing residence on the notice of departure or registration documents.

⁴⁷⁷ BA, Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern, 15 and 16 December 1970, p.25, in: BAK B119/5008.

⁴⁷⁸ *Ibid.*: 27.

provide feedback on the experiences and clarify cases of doubt. The problems in verifying and converting the information contained on StLÄ industrial censuses into numerical codes were manifold, not least because the businesses' location at times did not necessarily fall neatly within the borders of municipal or labour office spaces of measurement. Nevertheless, these problems were to be treated 'in a brief and concise manner'. 'The account of concrete facts is expected'.⁴⁷⁹ Subsequently, the data captured was compared with records of the public health insurance companies and the guild health insurance funds (*Innungskrankenkassen*) – an accuracy check that lasted another six months until July 1972.

The establishment of the business file as an epitome of administrative ordering was only the vital precondition to hand out the respective number codes to the businesses with which they, in turn, were supposed to set in motion the data transfer between them, the insurance agencies, and the BA. From 1972, these so-called company registration number notifications (*Betriebsnummernbescheide* hereafter) were sent out together with the official code key of occupational classifications and economic branches on behalf of company registration number offices (*Betriebsnummernstellen* hereafter). The establishment of these sub-divisions alone posed organisational and, above all, legitimacy problems for the BA. From an administrative perspective such as that adopted by Petersen (*Verwaltungsdirektor* of sub-department IVb3), rational working procedures required the establishment of one single 'data collection point' (*Datenerfassungsstelle*) merely for the issuance of company registration numbers and their maintenance and operating for all the AÄ. As he argued with reference to a rational and economical reasoning, 'a rational manpower approach is probably only ensured through the organisational centralisation of all data collection tasks'.⁴⁸⁰ Rational resource distribution should not only be expressed in the organisational structure. The requirements of new technology had a role too. The purchase of new 'special typewriters' (*Spezialschreibmaschinen*) planned for by the end of 1973, with which the data was to be converted, required spatial separation in that the special technical knowledge required to operate those would justify a move of necessary staff to a centralised data

⁴⁷⁹ BA, Ib4, to the LAÄ, betr. Erfassung der Betriebsdaten zur Errichtung einer zentralen Betriebsdatei, 25 October 1971, in: BAK B119/5008.

⁴⁸⁰ BA, IVb3 (Petersen), betr. Präsidenten-Besprechung am 27./28. Juli 1972, hier: Datenverbund Sozialversicherung – Bundesanstalt, p.7, in: BAK B119/5008.

collection point for all LAÄ. BA department I, however, was strongly opposed to these considerations. The ‘officiality’ of the *Betriebsnummernstellen* and thus the credibility of the entire procedure was at risk if data capture and statistical service were separated. Only with respect to internal operational savings, as the example of the ‘central typing pool’ (*Zentrale Schreibbüro*) showed, would such centralisation make sense. As soon as the public image (*Wirksamkeit nach außen*) was at stake, ‘the issuance of ‘official’ *Betriebsnummernbescheide* must be reserved for the authority which is functionally responsible’.⁴⁸¹

The required cooperation among the BA offices and businesses, and concomitantly, between the individual and the employer, required both their trust. This trust could, according to BA department I, only be built up if the statistical purpose of the *Betriebsnummernbescheide* remained visible in the organisational structure. If the *Betriebsnummernbescheide* were to be institutionally outsourced, separated from the statistical services in the form of a ‘formal data capture’ (*formale Datenerfassung*),⁴⁸² the entire operation would foreclose the possibility of control that was, ideally, granted with the institutional link between data gathering and statistical interpretation-cum-publication. More importantly, a separated data office would put at risk employees’ trust; itself considered a crucial pre-condition for their disclosure of information. Only if informational secrecy was guaranteed and institutionally strictly constrained to statistical (publishable and hence controllable) operations could such trust be protected and nourished. In this sense, the officiality of the *Betriebsnummernbescheide* was as much a matter of the transparency or the ‘publishability’ of the data generated as it depended on the enforcement of disclosure from businesses enshrined in federal law and enacted by the BA as the central and ‘official’ labour office. Only an ‘officiality’ thus understood could underpin the trust needed for the entire procedure. The official account of the new employment statistics, accordingly, emphasised the ‘functional and organisational’ (*fachliche and organisatorische*) incorporation of the *Betriebsnummernstellen* into the AÄ statistical services (Hoffmann, Hoyer et al 1972: 284).

Apart from the problem of the trustworthy institutionalisation of the necessary data gathering, the issuance of the *Betriebsnummernbescheide* itself

⁴⁸¹ Ibid: 7 (hand-written corrections on Petersen’s note).

⁴⁸² Ibid.: 6.

caused major problems. The LAÄ and AÄ lamented staff shortages and address material of the AOK was faulty, with the effect that notifications bounced back. As LAÄ statisticians reported in February 1972, businesses often threw them away since their ‘layout left something to be desired’ and they were taken to be circulars (*Reklamematerial*) or the like.⁴⁸³ Most importantly, matching the number code with the information available on the business still caused major problems revealing, at the same time, the meticulousness with which labour statisticians attempted to get the empirical multiplicity under control. One statistician of the LAA Hessen asked, for instance, which *Betriebsnummer* to use for ‘rural meat inspectors’ (*ländliche Fleischbeschauer*). Answers, as in this case, were taken ad hoc during the meeting at the BA federal office in Nuremberg, thus revealing the often unstandardised and decontextualised manner in which these allegedly orderly tasks were undertaken. Since meat inspectors were under supervision of district committees (*Kreisauschüsse*), their *Betriebsnummer* should be taken for both.⁴⁸⁴ What seemed to be an administrative practice executed in the orderly spaces of local labour offices where written standardised text information was carefully matched with written numerical information turned out, in the face of the actual application ‘outside’, to be a rather messy business. The AA Munich, for example, reported 200 calls per day on queries. The AA Nuremberg received 300 calls. A ‘sufficient number of telephone connections’⁴⁸⁵, as administrative expert Petersen noted, was actually an essential technical requirement to attribute the *Betriebsnummern* and inform businesses what to do with them. Problems were ‘solved’ in an ad hoc manner, mostly orally over the telephone.

The technical requirement to convert the information into machine language, in turn, posed central problems of legibility among all parties involved, especially for employers whose involvement with the new statistics was particularly required. These problems crucially affected the statistics since – according to the common logic – their accuracy depended on the reliable establishment of the databases, which – as with the previous employment files – was a matter of exact ordering and

⁴⁸³ BA, Ib4, betr. Besprechung mit den LAA-Referenten für Statistik vom 23. Januar 1972 in der Hauptstelle, 15 February 1972, in: BAK B119/5008.

⁴⁸⁴ Ibid.

⁴⁸⁵ BA, IVb3 (Petersen), betr. Präsidenten-Besprechung am 27./28. Juli 1972, hier: Datenverbund Sozialversicherung – Bundesanstalt, p.8, in: BAK B119/5008.

matching of information and numerical codes. The key to these conversions were code keys (*Schlüssel*). As the following example with regard to the occupational information shows, these keys had to be carefully developed during tests before publication. ‘High demands are made on these code keys’, a BA letter to the LAÄ put it in February 1971, ‘because practicability and reliable description of the classification criteria are indispensable’.⁴⁸⁶ Only if the keys contained current information on the economic activities described as professions or skills and was ‘drawn up in layman’s terms’ (*allgemeinverständlich abgefasst*) could employers be expected to accurately fill in the information onto the insurance cards. For that purpose, in March 1971 several statistical services of local labour offices tested code keys across a selection of businesses in their districts, by interviews and test material.⁴⁸⁷

9.8.2. Criticism of the New Statistics: Market versus Administrative Rationality

Criticism of the entire project of the new employment statistics had already been raised during the StBR annual meeting in May 1971. Employers’ representatives in particular not only considered the data capturing plans too comprehensive, but also doubted the feasibility and utility of the entire project given the ‘fluctuation’ and mobility of economic activities. Following Striebeck’s (BMA representative) remarks on the state of the art, BDA representative Bretschneider rejoined that the data gathering envisaged exceeded by far the former plans of employment statistics originally designed for the economic purpose of business cycle observation. Especially the information on school education and vocational training was essentially unavailable to employers and would need ‘to be enquired of every single employee and subsequently to be kept up to date’,⁴⁸⁸ with the effect that businesses were turned into data-gathering institutions. Prof Herrmann, BDI representative, was particularly sceptical about the utility of the new statistics, which he discredited with

⁴⁸⁶ BA, Ib4 (Wermter) to the LAÄ, betr.: Aufbau und Führung einer Beschäftigtenstatistik, hier: Entwicklung und Erprobung von Signierschlüsseln und –anweisungen zu den beruflichen Angaben, 3 February 1971, in: BAK B119/5008.

⁴⁸⁷ See information *ibid*.

⁴⁸⁸ StBA, IA, Bericht über die Tagung des StBR am 12. und 13. Mai 1971, p. 25, in: BAK B128/4097.

reference to the Nazi period. According to him, ‘the envisaged documents bore the markings of a precursor of a labour card’. From a practical point of view, the envisaged time for notifications was too short for the personnel management departments to keep up with. At the same time, the continuous capture of in- and outflows by labour offices was considered impractical given the fluctuation of manpower in some branches (e.g. the building industry).

StBA president Schmidt did what official statisticians usually do with regard to such allegations – he pointed out the rationality and efficiency of the envisaged statistics. This strategy would have been more convincing with regard to the MZ whose legitimacy strongly rested, among others, on the economical prudence of the representative sample. As to the new statistics, such justifications were less convincing since they had essentially been based on extensive administrative procedures in connection with the social security system and labour administration since the Weimar period. Official labour statistics, however, could still be justified as efficient if these bureaucratic procedures (*Verwaltungsvorgänge*) were described as organisationally independent from the statistical infrastructure proper. ‘The administrative operations’, so president Schmidt, ‘have always been required [...] Work resulting from them have nothing to do with the statistics’.⁴⁸⁹ Schmidt established a notion of the common good, accordance with which justified particularly the comprehensiveness of these administrative procedures: ‘Since in this connection financial claims are being taken care of, it is in interest of the insured, of the pension insurance, and of the state that the procedure runs *smoothly* and that the information is *complete*’.⁴⁹⁰ The political construction of a social state – regulated by the social insurance principle – required that financial transactions among all the parties involved (state, insured and insurance companies) not only operated smoothly but also did so on the basis of comprehensive information. As long as the planned employment statistics only used these data-gathering procedures (themselves considered efficient and necessary), allegations against the statistical enterprise as a whole would come to nothing.

⁴⁸⁹ Ibid.: 26.

⁴⁹⁰ Ibid. (Emphasis mine).

9.8.3. Creating Facts and Figures

The integrated notification procedure introduced by 1 January 1973 served as the legal and administrative basis of the new employment statistics. Essentially, it regulated the reporting obligations of employers to health and pensions insurance as well as to the BA. For the first time, data of three social security systems hitherto distinct was brought together by only one single notification. This procedure – arguably first envisioned with the 1938 amalgamation of insurance and labour administration for the purpose of statistical registration (see Chapter 3.3) – involved 2000 health insurance agencies, twenty pension insurance agencies, and the BA with 146 AÄ. The data transfer in a somewhat simplified manner proceeded as follows.

Once a new employee (all those under compulsory social insurance) commenced employment, a machine-readable document was to be type-written (Sziegoleit 1971: 34) The employer was obliged to send the registration form (see figure 9.1 below), within a clearly-defined time frame after commencement of work, to the respective health insurance agency where the card was double-checked and corrected if necessary and subsequently sent to the data collection points of pension insurance institutes in Hanover (*Datenstelle des Verbandes Deutscher Rentenversicherungsträger*) or Berlin (*Datenstelle der Bundesversicherungsanstalt für Angestellte*). There it was optically read by so-called ‘multi-font text readers’ (*Multifond-Leser*) and transferred to magnetic tape. Baier mentioned that these machines could read roughly 80% of the thirty different typewriting fonts in use in West Germany (Baier 1972: 388).⁴⁹¹ This data storage device was then transferred to the BA Central Office from where the information was relayed to the BA, the LAÄ and AÄ.

⁴⁹¹ In case employers transferred erroneous or illegible data to the insurance data centres, LAÄ employees had to rectify that, especially in case of incorrect *Betriebsnummern*. For this purpose, LAÄ maintained liaison offices at the data collection points of pension insurance institutes in Hanover and Berlin. These departments were also responsible for relaying the information between these data collection points and the BA Central Office. (Baier 1972: 388; Hoffmann, Hoyer et al 1972: 282).

Scan 9.1. Registration form indicating the information relevant for the labour statistics⁴⁹²

The card of which we see a sample above (entitled *Anmeldung*: registration) contained mostly numerical information of statistical value, such as date of birth and gender (as coded in the insurance number), citizenship, number of children, company registration number, contribution group, occupational status (*Stellung im Beruf*), occupational activity (*ausgeübte Tätigkeit*), commencement of employment. Further, spaces were reserved for some yes/no-entries: marital status (only married yes/no), whether pensioner or not, and multiple employment.

⁴⁹² Taken from Mayer (1977: 70). The following Insurance Card (see below) is also taken from Mayer (1977: 71).

The image shows a German 'Versicherungskarte' (insurance card) with various fields and labels. The card is divided into several sections:

- Personal Data:** Geburtsjahr (Year of birth), Geschlecht (Sex).
- Employment Details:** Beschäftigt gegen Entgelt (Employed for remuneration), Beginn und Ende der Beschäftigung (Start and end of employment), Arbeitsentgelt (Remuneration).
- Employer Information:** Betriebsnummer (Company number), Name und Anschrift des Arbeitgebers (Firmenstempel) (Name and address of employer (firm stamp)).
- Insurance Details:** Name der Krankenkasse (Geschäftsstelle) (Name of health insurance (business office)), Konto-Nr. bei der Krankenkasse (sofern nicht mit der Betriebsnummer identisch) (Account number at health insurance (if not identical to company number)).
- Other Fields:** Vers.-Trög. (Insurance carrier), Versicherungsnummer (Insurance number), Beitragspflichtiges Bruttoarbeitsentgelt in DM in Worten (Contributory gross remuneration in DM in words), Angaben zur Tätigkeit (Details of activity), Grund der Abgabe* (Reason for submission), Anschriften-änderung: ja (Address change: yes), Beschäftigt: ja/nein (Employed: yes/no).

The card is titled 'VERSICHERUNGSKARTE' at the bottom.

Scan 9.2. Insurance-card

The so-called insurance card (*Versicherungskarte*) was used by employers either to notify of the termination of employment or for the annual count. The sample above asked for almost identical information as the registration card. Spaces for commencement and termination of employment, and for remuneration were specific to the insurance card. Only the registration card asked for nationality, marital status and number of children.⁴⁹³ Within the BA Central Office a so-called insurance account (*Versichertenkonto*) was maintained for each insured person (employees under compulsory health or pension insurance i.e. all workers and most of the *Angestellte*) under his or her insurance number. The account stored all information gathered through the attributes recorded on the registration and insurance cards. The insurance database was hence the basis for statistical surveys.

⁴⁹³ See notes in StBA, Besprechungsunterlagen für die Amtsleiterkonferenz am 14./15. November 1974, Stand der Arbeiten an der Beschäftigten- und Entgeltstatistik, 31. Oktober 1974, in: BAK B128/4077.

9.9. Conclusion

This chapter has examined the establishment of a new statistical infrastructure of employment against the background of various incremental discursive and institutional shifts within the West German statistical landscape from the late 1960s. I showed how promises of machine-based data processing – whose peculiar absence from BAVAV labour statistical productions I noted in Chapter 4 – crucially expanded the realm of the possible for such an endeavour. As shown in this chapter, deliberations on the new statistics were from the outset characterised by a clear demarcation from the intimate relationship between human manual labour and paperwork which predominated in the earlier production of labour statistics. Concomitantly, within the BMA departments at least, there was agreement in late 1966 to abandon the decentralised data gathering procedure which, as we have seen, had been one of the obstacles to more general machine deployment for statistical purposes within the labour administration. The 1966 report of the SVR supported this double effort of centralised registration and modern data processing in the context of ‘manpower planning’. Electronic data processing was then firmly established within the BMA and beyond as the *signum* of a ‘modern’ government. This is illustrated, for example, by the establishment of a working group on electronic data processing within BMA sub-department Ib in April 1968 (Rindt and Saffert 1968: 26; Süß 2006: 178).

The chapter revealed that public criticism of the absence of a BAVAV labour statistical database seriously tested the institution’s legitimacy, as its legal obligation both to observe the labour market and conduct placement service and vocational training were hampered. In contrast to earlier periods, when a benign economic situation allowed for debates over the employment files (Chapter 6) and the various attempts to rescue the G-file (Chapter 8) to happen rather unnoticed by the public, by 1966, the impossibility of observing BAVAV activities and the labour market became a more general issue. The economic slump in late 1966 – the first of its kind since the 1950s – directed greater public attention towards labour statistics, as information was needed about employment levels and unemployment figures. As the analysis of SVR statements revealed, however, there were further issues at stake. The

exigencies of manpower planning and mobility on an inter-regional scale increasingly made their presence felt in contemporary economic policies. *Mikrozensus* figures, as already noted in Chapter 7, were unsuitable for the pursuit of active manpower policies. Figures quickly produced, differentiated by economic branch and profession, were urgently needed. Without them, the contemporary demands for an expanded governmental role in economic and labour policies could hardly be met, as this chapter illustrated with regard to the STERN report and the DGB initiatives in support of the ‘scientisation’ of labour market policies.

Against the backdrop of ‘statistical gaps’, this chapter showed how BAVAV and BMA labour administrators and IAB labour experts went about procuring the data so urgently needed. In early 1967, BAVAV department IV ordered the estimation of unemployed rates in individual labour office districts on the basis of the 1961 population and occupational census. Simultaneously, BMA administrators commissioned an expert study on the labour market forecasts by the Battelle Institute, whose labour economists, supported by BMA administrators, were primarily concerned with procuring statistical data from the StBA. Lastly, an expert group comprising economists within both the state labour administration and semi-public scientific institutions from summer 1969 planned to join in on the preparation of the 1970 StBA occupational and population census in order to get hold of more detailed employment figures. As this chapter has shown, StBA statisticians simply did not process the data the way labour economists needed them – a problem pointed out on more than one instance in this thesis (Chapter 4.7, 7 and 8.5):

As I argued throughout the chapter, ministerial ‘machine dreams’ at the interface of technological and political discourse not only propelled forward these statistical efforts in technical terms, but also served to politically justify their necessity. As the chapter demonstrated, actors associated various values with electronic data processing. Labour administrators expected administrative efficiency and accuracy to do away with the handwritten files once and for all. Politicians and governmental mathematicians (such as Paul Winkler) associated a ‘rational’ government with it, one that was supposed to be efficient *and* transparent, allowing for the information social citizens were expected to know in order to be able to take seriously their social rights. Labour statisticians were somehow in between the

exigencies of administrative rationality, scientific objectivity, and statistical publicity. They hoped future labour statistics would benefit from an indefatigable, ever-alert and quick machine technology, in as much as these established the possibility of providing accurate figures for the purposes of governmental and public institutions.

Against the technical dreams held by some ministerial bureaucrats (and also in opposition to scholarly work that sees post-war censuses in West Germany as essentially an unbroken technocratic continuation of the Nazi surveillance state (Aly and Roth 1984/2004)), this chapter has shown that from the outset, the governmental project of new labour statistics, like any statistical surveys in post-war West Germany, had to adhere to the principle of statistical rationality as enshrined in the 1953 Federal Statistical Law and embodied in the Inter-ministerial Committee for the Rationalisation of Statistics. As with earlier efforts to re-establish administrative procedures and legal codifications for the G-statistics (Chapter 8), the planned statistics were subject to parliamentary control, namely by the Parliamentary Committee on Social Policy and its sub-committee 'Data Processing and Social Security'. The commitment to confidentiality clearly demarcated the realm of official statistics from other branches of the state administration. This demarcation was less clear-cut with regard to labour statistics since their databases were rooted in state administrative practice. But as this chapter has shown with regard to discussions within the working group of employment statistics from January 1969 onwards, the envisioned labour statistics had to be justified repeatedly against the principles of economy and confidentiality. The principle of confidentiality – constitutive of the professional identity of StBA statisticians in particular – was expressed here in terms of precautions that databases did not over-lap in a way that would allow for individual identities to be traced. As was shown, in case they did overlap, administrators had to make sure that personal details (name and address) were provided in a way that was non machine-readable.

A further point in this respect has been emphasised throughout this chapter. The establishment of the new statistics was a slow and intricate process. The principles of economy and rationality not only dictated which infrastructure was used. Fundamental questions such as what was to be gathered and how to get hold of

the data were only developed and negotiated as actors went along establishing the technical infrastructure, the organisational make up, and politico-legal norms. Several issues that accounted for the complexity of the task were examined.

With regard to occupational classifications, it was shown how issues of statistical accuracy translated as issues over how to standardise occupational information along the lines of common-sense comprehensibility. Only if personnel managers in the nearly 1.5 million West German businesses involved understood the numerical codes of the 1972 BA occupational classification could administrators hope for sufficiently accurate data. Since, as this chapter showed, the entire data flow began operating with the completion of the registration form by employers, the correct 'assignment' (in the sense of Starr 1992) was vital for statistical purposes alone. The underlying issue, as I argued, was that occupational knowledge needed to be made impersonal in the first place for reasons of trust and credibility. As this chapter has shown, correct assignment was the task of employers who were unfamiliar with the underlying ordering system. Only if the occupational activity was coded in three-digit numbers could their need for intimate knowledge to understand the classification be minimised. In this sense, numbers were the prerequisite to stabilise myriad forms of economic activities into a list to be used uniformly across various businesses. This list with more than 30 000 titles was still very long and almost exceeded the size of a handy manual. At the same time, the occupational codes maximised labour statisticians' trust that the information was filled in correctly by persons they had no control over at a place distant from their own. This was, as this chapter argued, the most important prerequisite for them to believe the statistical data derived was trustworthy. In this sense, this chapter speaks to previous research such as Porter's (1995), who has shown how the language of numbers is primarily a 'technology of distance' well suited for communication that goes beyond the boundaries of locality and community. The geographical argument contained in this relationship between trust and credibility has been discussed in Chapter 2.5.

Discussions around the issuance of *Betriebsnummernbescheide* revealed similar issues of trust and credibility. Administrative attempts to order the economic space of private businesses through the issuance of number codes had to be justified. This time, as this chapter has shown, this was done with regard to the organisational

make up and the norm of democratic control. Data collection and processing for statistical purposes were supposed to be under a single roof in order to disperse concerns of state economic planning and governmental control. The organisational make-up of data gathering and data processing, as this chapter argued, needed to be visibly in proximity to each other in order to show that data was not only gathered but also published – arguably the precondition for control by others. An ‘officiality’ thus understood, I argue, was the only resource available to labour administrators within democratic polities as they sought to include businesses and hence individuals to cooperate. The principle of confidentiality (and vice versa ‘officiality’) thus translated into the institutional make up of the *Betriebsnummernstellen* and was instrumental for their incorporation into the AÄ statistical services.

This chapter showed that in preparation of the new labour statistics BMA labour administrators only marginally considered issues of representative sampling. This is a surprising finding given that especially committees of the BAVAV executive and administrative boards emphasised that ‘total capture’ had to be avoided. Further, through the G-statistics representativeness had already been introduced into labour statistical activities and these activities subsequently would have benefited from a certain know-how already acquired. At the same time, it can be argued that the G-files provided a negative example for labour administrators, one that probably was not to be repeated. This chapter identified further explanations for the rejection of representative sampling. The normative exigencies of rational and economical statistical data gathering, I argued, were partly absorbed by the promise of the envisaged data exchange between insurance agencies and the BA labour administration, which, in connection with electronic data processing, served as the epitome of rational resource deployment and economy. More importantly, the ‘statistical gaze’ built into the preparation of the statistics favoured comprehensive information on the ‘individual course of work and profession’ divided by economic branch and county districts – all of which a representative sample could deliver only under the presupposition of a national social space made up of rather homogenous entities. ‘Modern’ economic policies and manpower ‘planning’ in the light of the 1969 Employment Promotion Act required labour administration and the state more broadly to assume unprecedented responsibilities in responding to labour market

imbalances and the uncertainties of the wage labour society. In this regard, labour force fluctuations across a complex economic system on the national scale required data to be as detailed and spatialised as possible.

A further asset of representative sampling, its comparative non-intrusiveness into private space, did not hold much weight in the present context. The vast majority of the statistical information sought was, as this chapter showed, devoted not to demographic and social characteristics, but to economic and occupational data. The information sought mostly referred to what the individual did (in an economic sense), and not to who he was (in a socio-demographic sense). The issue of the surveillance of the individual – against which representative sampling holds some purchase – was simply not at stake, at least not easily recognisably so, since the boundaries primarily ran between the state and the economy, and not between the state and the private individual. As the chapter revealed, wherever individual characteristics were to be disclosed, as in the case of date of birth, gender, citizenship, or occupational activity, this was codified in the insurance number, thus transformed into an unintuitive series of digits, and stored apart (insurance agencies) from where the statistics were produced (BA Central Office). This information was never supposed to enter the data flow. Thus, even where individual rights were at stake, they were comparatively well protected in the broader attempt to get more information about the workings of the German capitalist economy.

10. Conclusion

10.1. Introduction

This dissertation has examined the historical making and interpretation of West German labour statistics at the interface of state administration and governmental science. My work has demonstrated that official statistics as an instrument of government and of scientific evidence cannot be considered a self-evident technical necessity, as if the economy, the labour market and the various human economic activities performed were merely mirrored in it. By contrast, conceiving official statistics in terms of a socio-historical ‘infrastructure’ (Bowker and Star 1999) led this thesis to scrutinise the interdependence of technical networks and means of standardisation, and the real work of politics and knowledge production. Rather than considering statistics as a resource for state action and scientific investigation, this thesis has been concerned with statistics as a contested topic comprising different techniques and ideas, styles of reasoning, practices, technologies and institutional contexts. Official statistics, as this work has demonstrated, have a history and geography as do other intersecting institutions and practices to produce and represent the economy and the social world via forms of public description and action.

The empirical chapters emphasised how difficult it was for contemporaries to deconstruct or change the labour statistical system partly inherited from the totalitarian regime. Professional careers, habitualised ways of working and seeing with and through the 1950s labour statistical infrastructure, and, not least, various sedimentary classificatory systems, were intimately connected to it. Any interference with this system – essentially erected under an exceptional mobilisation of resources and political power in preparation of war in the 1930s – would have required a concerted and costly dismantling or re-‘investment’ (Thévenot 1984). The period under study thus not only witnessed complex and intricate efforts to improve the existing labour statistical infrastructure lasting more than a decade. The story of ‘modern’ failure accounted for in Chapters 4, 6, and 8 was followed by equally difficult and demanding efforts to establish a new infrastructure over the following decade (Chapters 7 and 9).

The succeeding section reflects on some of the theoretical and empirical implications of the conclusions of these chapters. This reflection considers the

contribution that this thesis makes to the literature on the post-war West German welfare state and official statistics. The chapter ends with a brief discussion on the limitations of the thesis both in terms of argument and archival deficiencies.

10.2. Lessons from Epistemological History for the Writing of History

One of the more significant findings to emerge from this study is that the West German labour administration functioned without the administrative bases for labour statistical activities proper between 1963 and 1975. Between 1945 and 1963, the employment files were re-introduced and maintained unevenly across different LAÄ districts and considered increasingly faulty in comparison with the StBA *Mikrozensus*. This evidence suggests that statistical data based on the BAVAV material from that time at best indicates trends. Historians should use the statistical data with caution. But there is a more general point to make here, one which provides empirical support to all those who consider the retrospective projection of statistical categories onto the past a highly problematic scholarly exercise, both in terms of epistemology and research politics (Desrosières 1992; Topalov 1992; Topalov 2001).

Epistemologically, the use of long numerical series or comparative tables in historical reasoning poses problems in the *longue durée* because the fiction of unitary numbers for complex social entities such as ‘labour’ or ‘unemployment’ conceals their character as a politico-scientific-administrative invention and re-invention from the 1890s onwards (Zimmermann 2006). In the extreme case, social phenomena become equivalent to the measurement that is made of them. In a realist manner, the economy, or ‘unemployment’, assumes the status of a substantive entity, even an actor who moves in one dimension irrespective of constraints in space and time. Some historians have found a way out by critically evaluating historical sources. Hohls, for example, assesses the archival evidence of official labour statistics in nineteenth and twentieth century Germany (Hohls 1991; see also Fritz 2001). His survey, however, focuses exclusively on the nature of statistical data gathered in occupational and population censuses and published on behalf of the Reich and

Federal Statistical Office, disregarding labour market statistics on behalf of the RAVAV and BAVAV/BA. Moreover, he intends to verify the reliability and completeness of these counts as a basis for (quantitative) historical investigation.

This research may serve as a basis for similar studies with regard to BAVAV/BA statistics. At the same time, I would argue that this thesis went further in examining the ways in which these statistics were socially constructed as part of the reality of mid twentieth-century West Germany. It was shown where the respective definitions of the working population differed between the StBA *Mikrozensus* and the BAVAV statistics (the *Erwerbstätige* as defined by a mixture between the concepts of labour force and gainful work in the case of the *Mikrozensus*, and the notion of *Arbeitnehmer* as defined by compulsory insurance legislation for the BAVAV/BA). This study has revealed the different social conventions and practices that stood behind the respective data gathering procedure (interview and questionnaire versus legal and administrative codes and a range of other means to create facts and figures). The makeshift BAVAV publishing practices during 1967 alone and the fact that the G-statistics – although never published – were supposed to deliver estimated figures only on the state of employment in respective labour office districts invite us to treat such data with caution. Importantly, the BAVAV labour statistical infrastructure alone underwent tremendous transformations, notably a re-capturing of businesses and the insured population between 1971 and 1974. The tremendous effects on the construction of long statistical series were only alluded to (Chapter 9). This evidence suggests calling into question any transposition of our own statistical representations onto former times, unless it is accompanied by a discussion of the presuppositions and consequences of the decision to do so.

In this light, an epistemological history helps to conceptualise statistical activities as a set of conventional steps of coding and counting enmeshed in a wider politico-administrative landscape. This allows research to identify both the points at which contemporaries themselves grappled with the ‘realism’ of their measurements and those at which historians retrospectively imposed their realist (or relativist) conceptions. Most importantly, this thesis confirms previous findings and contributes additional evidence that suggests that being more realist (or relativist) than the

scientists and administrators during their historical times and at their geographical locations runs the risk of missing the ‘problematizations’ under which history unfolded (Wagner 2001; Wagner 2006). This point becomes particularly pertinent in the case of statistics and their historical relationship with social research more broadly. In this regard, the retrospective constructions of *longues durées* via statistical series and comparative tables across national differences and over time ironically only becomes possible as a consequence of the realist promises enshrined in the statistical logic itself, namely the establishment of stable elements otherwise inexistent, and of relationships between these entities otherwise apart (such as the ‘discovery’ of regularities or patterns over time and space). In this sense, quantitative historians and quantitative social policy analysts often share the same ‘political metaphysics’ (Boltanski and Thévenot 2006: 28) with the labour administrators and statisticians researched in this thesis. Both groups are somehow concerned with the issue of how to establish stable links between individual economic activities, social space and the state in the attempt to organise ‘liberal modernity’ (Wagner 1994a). The former group, however, usually disregards the various social contexts within which the statistical productions took place and complacently makes use of the figures alone. The latter group, as this thesis has shown with regard to mid-twentieth century West German case, were aware, unlike some quantitative historians who might make use of their figures, of the manifold limitations their statistical productions were marked with,

Labour administrators like Galland, Redlich, or Siebrecht were their own fiercest critics (Chapters 6, 7, 8). They repeatedly reflected upon the limitations of their measurements, even although the institutional and professional context within which they worked required that figures be published for political purposes. Their deliberations on the limitations of their data usually took place in specialist journals as a professional, arcane discourse hidden from the public eye. This point is even more pertinent with regard to the emerging generation of mathematical statisticians in post-war Germany (Chapters 5 and 6). Kallmeyer, Anderson, and Kellerer were, to a certain extent nominalists in that their intellectual attitude did not pre-suppose that the measured entities had to be realised or proven in the empirical world. Certainly, their discourse reserved a certain essential difference for the social world and its

scientific investigation in that the mere transfer and application of modern mathematical statistics – mainly developed within natural sciences – to social sciences was rejected. Further, Kellerer considered himself an applied statistician. He and Anderson gained most of their statistical training in governmental or business statistical departments before entering Munich University. Their reasoning, however, exemplified a broader reconfiguration of public statistical discourse in West Germany, one by which statistics as a heterogeneous discipline increasingly became formalised as an applied mathematical method. The measurement of empirically inaccessible ‘things’ did not pose cognitive problems for this discourse. This becomes most pertinent with regard to representative sampling which pre-supposes that the characteristics one wishes to measure did not need to be verified for the entire population (Chapter 6). Theories of error and probability redefined exhaustive models of measurement and offered a conventional language in which limitations could be discussed and controlled. These examples show that historical actors already broke with the realism that arguably prevails in some quantitative historical investigations.

The argument can also be developed to defend the ‘the complex pyramids of equivalences’ of statistical information (Desrosières 1998: 325) against relativist critiques and their denunciations. The present study provides additional evidence with respect to the relationship between official statisticians and one of their fiercest critics, namely early Frankfurt School philosophers and ‘strong poets’ speaking on behalf of the public. Chapter 5 argued that both stances – the official statistician’s evidence-based rationality and philosopher’s experience-based poesy – refer to two different discursive modes of how to represent social reality. Whilst both are legitimate forms of knowledge or public criticism, I argued that neither the official statistician’s obfuscation of measurement problems, nor the philosopher’s appeal to an inert subjectivity and individual authority were particularly conducive to the ideal of an ‘open’ democratic political order. The question of which place official statistics and statisticians should occupy within a political order thus remains an open one.

In this sense, by analysing the making of statistical knowledge, this dissertation did not aim to debunk the efforts of labour statisticians. To the contrary, on the level of professional ethos, the perspective adopted in this thesis partly

supports the idea that we should consider official statisticians, despite their notoriety as among the ‘biggest utopians’ (Peters 2001: 447) or ‘the most creative metaphysicians’ (Daston 2000: 36), precisely because they often aspired to a similar equality and impersonality that they believed to be enshrined in their numbers. In this, they often enacted, unlike the authoritarian ‘academic aristocrat’ (Chapter 5), the ‘doubleness of democracy: self-denial and hope of the great community’ (Peters 2001: 447). On the other hand, the fact that statisticians of all *couleurs* so willfully collaborated with the abuse of power under the Nazi regime, and afterwards, as was shown in this thesis, shamelessly whitewashed their reputation, points to the essentiality of public struggle against and democratic control of statistical activities (Hannah 2010). Even if it might be necessary that quantitative measurement and social classifications be concealed in ‘black boxes’ for a public sphere to be established and function (Desrosières 1998: 323f.), the debates disclosed in this thesis, especially among labour and administrative statisticians show that legal and public control did not by itself prevent the abuse of power. As shown, ministerial bureaucrats and labour administrators had to be controlled with the help of elements that were capable of channelling, directing, and curtailing their energies as social engineers and technocrats. These elements were embodied in, for example, the BAVAV executive and administrative board, in federal law, to a certain extent in the statistical discourse of representativeness and its principle of economy, and in StBA statisticians and their adherence to publicity.

10.3. Steps Towards Historicising the ‘Golden Age’ of Welfare Capitalism

The more critical edge of the argument in favour of an ‘epistemological history’ can be made clear by looking at political implications of an unreflective usage of official numbers. The issue here points at the relationship between practical knowledge and power, between figures of the state, governmental institutions, the official account both tend to deliver about a given society, and the ramifications this might have for the writing of mid-twentieth-century West German history. Here, I look at how my work provides empirically-based support for some of the discussions and criticisms

of historiography about the 'golden age' (Hobsbawm 1994), that is the time between after the Second World War and 1973, when the 'crisis', the 'cross-roads', the 'new politics' and the 'recasting' was supposed to have entered the scene. This dissertation represents an important contribution to the scholarly literature on this period as it speaks directly to the concern that historians, as well as social scientists have tended to rely more on the socio-political constructs with which contemporary German society described itself than on semantic analysis of key concepts and categories with which these constructions were described and made up (Doering-Manteuffel 2007).

In this sense, much of the current findings add to a growing body of literature on the historisation of the 'golden age' of welfare capitalism in Western Europe (Marglin and Schor 1990; Whiteside and Salais 1998; Toft 2003; Doering-Manteuffel 2007; Doering-Manteuffel and Raphael 2008). Even though these scholars evaluate quite differently the period of 'cooperative' or 'planned' capitalism in mid twentieth-century Western Europe, they share the attempt to show that most historiographic analyses share a key background point of departure. This is the assumption that before the 'crisis' in the mid-1970s, when much of the social world became 'atypical' and fluid, there was a situation of normalcy characterised by the generalisation of wage labour under conditions of full employment and at sufficient wage levels. In this respect, there is an attempt to reveal that the evaluation of the 1950s and 1960s as the 'golden age' was crucially shaped by the beliefs that a 'Keynesian model of society' (Vobruba 1983) constructed about itself: the governmental ability to ensure full employment and manage labour markets as part of its agenda of post-war 'modernisation', and probably also as part of a coming to terms with the Nazi past (Frei 2002; Foucault 2008).

This thesis broadly supports the contention that Whiteside (1999) has made for the British case. For her, '[r]etrospective illusions of homogeneity in the post-war labour market are the product of macro-economic analysis: illusions reinforced by official statistics, themselves based on categories which form an integral part of the institutions of macro-economic policy' (Whiteside 1999: 79). One of the key arguments of this thesis was that with regard to the German case such statistical measurements did not necessarily signify a transformation in the labour market, but rather a transformation in the way in which the BAVAV (and the StBA) wished to

understand and analyse its operation. Unlike some of the standard accounts of period (Schmid, Wiebe et al. 2005; Schmid and Oschmiansky 2006), this thesis has demonstrated that the notion of order and normalcy, at least with regard to the statistical infrastructure in place, has to be considered an exaggeration imposed by historiography in retrospect. The statistical debates, the infrastructure in place, its constraints and ramifications in terms of speed and human fatigue evidenced in this thesis indicate that statistics, classifications and technical requirements were in state of continuous reformulation and re-invention. By looking at contemporary debates over the West German labour statistical infrastructure and their patchy productions, my research adds a fundamentally disturbing question to these more general accounts: what do the figures and the relating categories actually tell us of that time? Was this period marked by a general order, which then became fluid and elusive, or by disorder which went below the contemporary statistical radar?

This study has gone some way towards Doering-Manteuffel's (2007) postulate over re-assessing basic notions constitutive of thought and action during the mid-twentieth century. Chapter 7 provided evidence concerning the historical understanding of 'manpower requirements' as contextualised differently between the OECD and the German statistical offices. Whereas economists within the former associated manpower forecasts with numerical estimates, the latter context required a 'thicker' description of what and who was measured. These discursive demarcations, rooted in the German statistical landscape and its governmental institutions of labour eventually accounted for a sceptical reception, even rejection of labour forecasts within the BAVAV and the BMA. As was shown in Chapters 7 and 8, with the IAB a newly-found institution absorbed the demand for labour forecasts as one important component of a 'rational labour market policies'.

Reference to machines is a further predominant feature of the governmental discourse on labour and economy in 1960s West-Germany. Computers were believed to replace the face-to-face placement service, business cycle research tended to rely on 'economy automatons' (*Konjunkturautomaten*), and, last but not least, the entire debate on the future of employment statistics drew heavily on the new possibilities of electronic data processing both as resource of legitimation and precondition for its feasibility. These findings support previous research on the machine as an

ambivalent albeit powerful metaphor for government and administration in the course of 1950s' rationalisation discourse (Metzler 2005; Kaiser 2009) and the 'mechanical discourse of government' (Agar 2003) more broadly. My thesis provides additional evidence with respect to how electronic data processing served as a (rhetorical) resource providing a solution to key problems inherent in (liberal democratic) political orders. As argued in Chapter 9, the promises of rationality and economy embodied in contemporary electronic data processing served as a resource for labour statisticians to justify their politics. More broadly, as was shown with reference to BMA minister Arendt, a 'modern' social policy from the late 1960s increasingly drew its claim to legitimacy from the rhetoric of transparency and information availability for social citizens. Reference to the vision of electronic data processing fuelled the modernisation of labour administration more broadly.

Chapter 4 and 6 showed how the absence of statistical machines from BAVAV labour statistical activities until the early 1970s (with the exception of the LAÄ Schleswig-Holstein and North Bavaria) posed problems both of credibility for the statistics produced and of reliability for administrative practices. Taken together, these findings suggest a role for machines in promoting contemporary standards of statistical accuracy. With regard to the introduction of the new statistical infrastructure discussed in chapter 9, it is also clear that without electronic data processing the large volumes of data could have been neither produced nor processed at reasonable costs. This study, however, confirms previous findings with regard to early twentieth-century statistics in that human labour, and more precisely, a certain division between different classes of human labour, remained central to statistical work (Tooze 2001; Petzold 1992). This study has shown how, parallel to the introduction of electronic data processing and the machines that came with it, the appeal to the administrator's 'spirit of rigor' did not fade away. New professions such as programmers, mathematicians, and electronic engineers became part of statistical practice as the labour statistical data production shifted during the late 1960s. But the underlying issues (how to produce reliable and quick results to reasonable prices, how to get hold of the data) remained crucially related to human labour.

10.4. On the Significance of Crisis and War for the Development of Official Statistics

As was shown, the significance of war experiences played out variably in the course of this study – an issue that cannot be overestimated for a history of official statistics in (West-) Germany (and in Europe and the US more broadly). A concentration of forces and resources, increased governmental attention, as well as efforts to coordinate and amplify statistical outputs during the two World Wars and the 1930s economic crisis have varyingly been identified as effective on the development of national statistical systems (Beaud and Prévost 1997; Tooze 2001; Didier 2009), and information technology more broadly (Kittler 1999; Agar 2003). The present study extends this argument to a post-war situation and provides additional evidence with respect to the West German case.

The efforts undertaken to put in place a new infrastructure of employment in the absence of war during the late 1960s and early 1970s are extraordinary. As shown in Chapter 9, the disruption of the G-files in 1966 coincided with the retirement of most of the leading labour administrative staff in BMA and BAVAV who professionally ‘grew up’ with the files in the 1930s. A new generation of economists, mathematicians and electronic engineers co-emerged with the establishment of a data circuit of unprecedented size between employers, insurance agencies and the BA. This involved the installation of new IBM and Siemens machines and databases, the establishment of new central institutions such as the BA Central Office and various data collection points that were interlinked with a network of several thousand insurance agencies and labour offices. Typewritten, machine-readable insurance cards replaced the handwritten files as the central unit for information assemblage. The expenses in terms of human labour, cost and ‘investments in form’ (Thévenot 1984) were immense. But even here, as this work has shown, the developments were more evolutionary than revolutionary. The fundamental idea of integrating notification procedures of labour and insurance administration for statistical and administrative purposes has been at the core of modern welfare states from the late nineteenth century (Ewald 1986). Further research might explore to what extent the 1971 integrated notification procedure

between labour and insurance administration for the purpose of statistical registration relied on experiences of the 1938 amalgamation between health insurance agencies and the labour administration (Maier 1986).

The *topoi* of continuity and rupture have been defined as one of the key defining narratives in (German) historiography about Germany and Western modernity (see Roseman 2011 for a recent account in English of the bewildering variety of theories), and indeed German societal self-description (Nolte 2000). In this context, this thesis put forward the argument of a continuation in terms of personnel, expertise, techniques and technology between the war-related labour statistical infrastructure of the 1930s and its post-war re-establishment under Allied occupation and post-war chaos. Considering the discussions around Emergency Legislation during the late 1950s and early 1960s, for which the employment files were supposed to constitute the technical basis (Chapter 8), this argument can even be sustained until the end of the ‘long 1950s’ (Abelshauser 1987).

One popular way of tracing the continuities in German history is to study the biographies of individuals across the divide of 1945 (Klee 2005). In addition to similar attempts for economic and demographic statisticians (Tooze 2001: 283f.; vom Brocke 1998; Aly and Roth 1984/2004; Mackensen, Reulecke et al 2009) and for the staff of the labour administration more broadly (Maier 2004), this approach has partly been applied to the present study (see Appendix). This thesis is not a biographical study. However, the careers of certain important individuals may perhaps be taken as illustrative.

Galland, Scharlau, and Schönefelder entered the RAVAV between 1929 and 1935 to become important mid-rank figures within the Nazi labour administration. All three were leading administrators in the context of post-war BAVAV/BMA labour statistics until the late 1960s. They held PhDs; Schönefelder and Galland obtained their degrees from law faculties. Their professional experience was crucially shaped through leading positions on the local level of Nazi labour mobilisation (*Arbeitseinsatz*). Schönefelder was employed in mobilisation of labour in Lower-Saxony. Scharlau was head of the department ‘Labour Deployment and Statistics’ at the AA Essen before entering the RAVAV in 1938, shortly before the institution was eliminated and incorporated into the Reich Ministry of Labour.

Galland co-authored a textbook on ‘Mobilisation of Labour and Unemployment Benefits’ (Tintner and Galland 1937), and was statistical expert at the LAA *Mitteldeutschland* (Erfurt). A further leading figure, Luyken, who was of an older generation, was head of a sub-department within department V (Mobilisation of Labour, Unemployment Benefits, Labour and Social Statistics) in the Reich Ministry of Labour. He was instrumental in the re-establishment of labour market statistics within the post-war Economic Zone. Each made his respective mark with specialist publications on the labour statistical infrastructure either during the Third Reich (Luyken 1936; Tintner and Galland 1937; Scharlau 1939; 1941; 1943), or after (e.g. Galland 1956; 1958; Luyken 1956; Draeger, Buchwitz et al 1961).

At some point after 1945, Scharlau and Galland entered the BMA, where they both were re-united within the sub-department Ib (Economic Policy and Statistical Affairs, International Social Policy). Luyken retired during the early 1950s as BMA *Ministerialdirigent*. Schönefelder, for some reason, re-entered the BAVAV in 1952 only, at the sub-department Ia (Labour Market and Employment Placement) from where he continued on to an astounding civil service career which ended with the co-authorship of a standard commentary on the Employment Promotion Act in 1969 and an Order of Merit of the Federal Republic of Germany in 1970 (ABAA 1971). Their expertise in particular on the employment file system identified each as a leading figure during the post-war debate on the future nature of the BAVAV labour statistics. As shown in Chapter 4, Schönefelder was member of the BAVAV executive board commission ‘Employment Files’ from 1953 and repeatedly raised his voice in support of the files until their abolition in 1963 (Chapters 6 and 8). Galland, who crowned his expertise with his hallmark publication on labour and unemployment statistics in the FRG (Galland 1956) led the discussions from within the BMA. Together with Scharlau he deployed his inside knowledge to the maintenance of the files until 1961, when irrefutable issues of statistical accuracy had turned a continuation of the files into a hazardous adventure of ministerial courage (Chapter 6). Scharlau accompanied the discussions on the G-files until late 1965, when even a representative sample failed to stand the test (Chapter 8).

This biographical approach is certainly fascinating. Similar complicity of civil servants, labour administrators, and statisticians with the Nazi regime has been

exposed in the case of Kästner, Komo, and Käfferbitz (see Appendix I). Biographical continuities have been noted for a series of important StBA statisticians, such as Koller, Horstmann, Schubnell, and Kallmeyer, a particularly dubious case (see Appendix I), as well as for German (and Austrian) demography more broadly (Mackensen, Reulecke et al. 2009; Bryant 2010). In addition to these findings, this dissertation has added Hans Sperling and Klaus Szameitat to the list (see Appendix I). But apart from the fact that a biographical approach serves an essential public purpose, namely the naming and calling to account of responsible individuals: What wider conclusions can we draw from such extraordinary stories of continuity?

My work has argued throughout against a one-dimensional interpretation of German post-war labour statistics, or official statistics more broadly. The archival analysis rather, suggests a non-contemporaneity of events further differentiated by various institutional spaces and sites within the West German and transnational statistical landscape. Official statistics during the early years of the Federal Republic were marked by various traces of Nazi rule and military occupation. At the same time, crucial normative and social forces such as Federal Law, the *Grundgesetz*, and trade unions propelled emancipation from totalitarian influences. Nevertheless, the efforts to establish the new employment statistics, as this thesis has argued, cannot be seen as independent from earlier such efforts during the 1930s.

The significance of biographical continuities is probably most apparent in the fact that street-level and mid-rank labour administrators, and all those who worked in the messiness of the every-day business, developed some kind of emotional attachment to the files. Consequently, technical know-how and knowledge about the file system hibernated as an embodiment until the final decision was made ‘from above’ to discontinue the files in 1963. Adolf Hausin, for example, then head of the AA Lörrach wrote an emotional obituary of the files entitled ‘The file is dead’ (*Die Kartei is tot*) (Hausin 1964) in which he deplores the separation from an ‘acquaintance’ (*Bekannten*) who served for almost thirty years as a ‘loyal companion’ (*treue Weggenossin*). This thesis further highlighted the fact that post-war occupation and Allied rule by exceptional decrees prolonged the power of registration and quantification well into the early 1950s. This was particularly evident with regard to the fact that the *Arbeitsplatzwechselverordnung* from

September 1939 continued being a valid legal resource for forced registration with local labour offices until the 1951 Employment Protection Act. In this context, the files as the basic unit with which to assemble information were scrapped to a large extent, but as shown in Chapter 4, the 1954 version of them asked for similar, if not more extensive information than had the Nazi labour card on the occupational identity of German citizens. Further, the 1953 Federal Statistical Law was only indirectly valid for BAVAV statistical activities since most of these were embedded in independent administrative activities such as placement services and occupational counselling. Only when administrators considered a ‘statistical paragraph’ to be included in the AVAVG did German ‘statistical legalism’ come into play.

On the other hand, constitutional and administrative differences between the Weimar Republic, Nazism and the Federal Republic were recognised as relevant to the makeup of official statistics. In this respect, this thesis confirms previous work which has shown that within the constitutional structure of the Federal Republic and the state system there were powerful elements channelling, directing and curtailing both the energies of former Nazi personnel and the remaining structures of the Nazi state (Litz and Lipowatz 1986; Tooze 2001: 285-291; Metzler 2005: 154-163). Post-war German market liberalism was instrumental in the development and implementation of the 1953 Federal Statistical Law and the containment of excessive statistical-administrative activity more broadly. The liberal norm of *Statistikgeheimnis*, confidentiality and anonymity – promised to respondents since the mid-nineteenth century – played a crucial part in the professional identity of official statistics. It was shown throughout this thesis how German ‘statistical legalism’ required that any major alterations to the existing data gathering procedures underlying the BAVAV labour statistics passed through both houses of parliament in the form of a ministerial draft bill. As shown, the legislative check was one of the major reasons why the administrative basis for an improved data collection procedure was never re-established. The employment files and later, the G-files remained faulty and, as far as the latter were concerned, statistics derived were never published. Not only did labour administrators adhere to a certain standard of statistical accuracy which prohibited the publication of ‘imprecise’ results. As shown in Chapter 8, the requirement to report and justify ministerial plans in front of

a Parliamentary Committee constituted serious parliamentary control in the name of statistical rationality and economic freedom. If there was a certain biographical continuity, as noted above, the legislative and administrative requirements of the Republic suggest a fairly quick adaptation to the new situation. In this context, the internal structure of the BAVAV as a self-governing body also proved to be crucial in efforts to restore the pre-Nazi make-up of the labour administration. BAVAV administrative and executive boards to a certain extent curtailed dreams of total registration. By the time questions of manpower planning, strongly supported by reformed Social Democracy, appeared on the West German economic agenda during the early 1960s, the resemblances with other such efforts in the Soviet Union and the GDR, or indeed France and the Netherlands, were probably greater than those with the Nazi administration (see Metzler 2003 on the 1960s transnational planning discourse; Ruck 2004; Bröckling 2008).

Chapter 9 discussed in detail the significance of transparency and data availability as an important normative resource for the discourse on social rights and citizenship. A ‘rational’ modern government was supposed to be efficient *and* transparent making available the information social citizens were expected to know of in order to be able to take seriously and to exercise their social rights. While the empirical content and the actual effect of such normative principles remained doubtful – especially since a data gathering procedure of unprecedented size and scope was put in place in their shadow from 1966 onwards – the effect on bureaucratic practice was undeniable in that individual privacy was protected (where it was affected at all), and boundaries between the state and private corporations largely respected.

Further work needs to examine official statistics in the *longue durée* of the twentieth century and investigate to what extent they owe their make-up and infrastructure to the experience of war. Pestre’s argument that sciences reached unprecedented status in an ongoing culture of emergency and permanent mobilisation 1940-1960 in Europe and beyond may serve as a starting point in this direction (Dahan and Pestre 2004). Further research might also explore to what extent a ‘reactionary modernism’ (Herf 1984) stretches beyond the period 1933-1945 to include the democratic welfare states of the 1920s and the 1960s. Dickinson’s

(2004) overview is a useful starting point here. Based upon the assumption that varying possible constellations of power are possible in modern societies, he explores democratic *and* totalitarian potentials of welfare policies or ‘biopolitics’ for a history of European modernity (Dickinson 2004; see also Etzemüller 2009a).

10.5. Limitations of the Current Research

Finally, a number of limitations may be considered. The most important of which is to be found in the fact that most of the arguments in the present study were developed against the backdrop of uneven and missing archival evidence. As noted in Chapter 3, an archive of a society, a culture, or a civilisation cannot be described exhaustively. In that sense, the notion of complete or exhaustive coverage is a strange kind of positivist illusion (Iggers 1997). Nevertheless, in the current study I was unable to access a number of archives for which this principle of inexhaustibility would not have applied. Its ‘constitutive other’ rather, must to be held responsible: time constraint. The following section outlines these deficiencies and briefly discusses possible ramifications.

Chapter 3 conceptualised the West German (labour) statistical landscape as a discourse coalition among DStG and university academics, and labour administrators within governmental institutions. Throughout this thesis, the labour statistical discourse thus conceived was an important analytical means to interpret statisticians, their techniques, and knowledge productions as a powerful force in the wider social political landscape. The workings of the DStG, however, were reconstructed from primary published sources only, most importantly from proceedings of annual meetings. I was unable to find archival traces of the DStG. Other publications in specialist journals helped complement the picture. However, university archives and personal archival remains of important historical figures such as Kellerer, Anderson, Fürst, or Lévy-Bruhl would have constituted a suitable starting point for a closer archival examination.

As mentioned in Chapters 8 and 9, debates within the Parliamentary Committee of Labour (*Bundestagsausschuss für Arbeit*) were reconstructed from archival traces

within BMA and BAVAV records. On this basis, a decision was made not to visit the Parliamentary Archive in Berlin. Similarly, Chapter 4 mentioned that the few passages on the establishment of the labour statistics were reconstructed from primary published sources only. BAK material classified under the occupied forces' administration 1945-1949, especially the inventory on the Central Labour Office (archival signature Z 40) would have usefully complemented these sections.

Chapter 9 accounted for the establishment of a new statistical infrastructure of employment within the BA and particularly highlighted the significance of the integrated notification procedure for statistical purposes. A more comprehensive history of these endeavours would have exceeded the scope of this PhD as a whole, but the chapter would have benefited from archival material of the Federal Insurance Office for *Angestellte* (*Bundesversicherungsanstalt für Angestellte*) and the Federal Insurance Agency (*Bundesversicherungsamt*) because the role of insurance agencies was vital in the establishment of the data flow. Archival remains of both are housed at the BAK but they are patchy and broken and so the decision was made not to turn to them in detail.

As mentioned in Chapter 3, ILO material (reports and other print material) was accessed in so far as it was published or accessible via www.labourdoc.ilo.org, the online database of the ILO Library. Nevertheless, the ILO archives in Geneva and in particular material on the International Conferences of Labour Statisticians (ICLS) constitutes a serious omission in this respect. Correspondence with Renée Berthon, ILO archives assistant (now retired) revealed in November 2010 that the so-called ST inventory on (mostly) labour statistical questions in the post-1945 period would have usefully complemented the transnational perspective adopted herein. The ST series comprises correspondence, information and inquiries on statistics of concern to the ILO. Material on the proceedings of ILO conferences and committees on labour statistics, especially of the ICLS and ISCO conferences would have been most useful to further trace the mutual exchanges between national and transnational experts in their attempt to construct and legitimise both their work and statistical products respectively. As the various sections on the OEEC/OECD revealed, however, labour statistical work under its name was rarely carried out without direct (e.g. joint working groups), or indirect (e.g. observer status of ILO personnel during

OECD committee meetings, exchange of personnel of working groups) participation of ILO expertise. In that sense, the ILO as one of the main voices in the transnational labour statistical discourse was incorporated in the present study through OECD archival material.

The Archive of Social Democracy (AdSD) was visited in March 2010. Archival remains from DGB federal executive departments ‘Social Policy’ and ‘Economic Policy’ constituted an important basis for this study, especially for Chapter 7 and 9 where the politics of ‘active manpower policy’ were discussed. More material remains to be consulted. In particular the archive of the Economic Research Institute (WWI) established in 1946 under the auspices of the DGB. Important (post-)war figures, such as Rolf Wagenführ or Bruno Gleitze spent a period there; the former as chief statistician until 1952 (Tooze 2001: 284), the latter as WWI head 1956-1966. The archive is well catalogued, especially for the period 1946-1971. Further material would certainly complement the picture presented in that the issues of production and credibility of statistical data within governmental institutions could be further compared to efforts within the WWI. The promise of a further expansion of a ‘politics of statistics’ to include trade union activities has arguably been indicated in this thesis. Further archival evidence in this respect might provide further insight into the interplay between employers, employees and governmental institutions in the attempt to establish a ‘rational’ social policy based on scientific evidence, as, for example, in the context of the ‘Social Policy Roundtable’ (*Sozialpolitische Gesprächsrunde*) from early 1970. Social statistical data and the politics involved also structured the debate over full employment in the immediate post-war years.

My attempt to write a history of West Germany’s labour statistical knowledge as an integral part of the history of the twentieth-century state apparatus and more generally bureaucratic organisations (Tooze 2001, Desrosières 2003a/2008) is to a degree limited by the fact that the role of the administrative gender division of labour and the complexities of ‘doing’ (and ‘undoing’; Butler 2004) gender has not been systematically examined. The various improvements planned for the employment files and the establishment of the new infrastructure – the processing of data notwithstanding – each depended on the concerted mobilisation of thousands of personnel. As indicated in several chapters, female employees on lower ranks in the

labour and state administration were usually assigned to do the mundane work. Concomitantly, looking at leading personnel in the Annex, Hildegard Bartels was among the very few female professionals in a leading position during the time of study. There were a handful of women statisticians such as Charlotte Lorenz and Ingeborg Esenwein-Rothe. Marianne Dünnwald was a member of the cross-institutional working group ‘occupational classifications’ in the late 1960s. The significance for the making of a ‘politics of statistics’ of these thousands of punchers, inspectors, signers, typists and other female clerks remains for the moment unknown.

The present study was unable to analyse the role of ‘guest workers’ hired from the late 1950s to work in West Germany. The files in each AA – as did the Nazi employment files – contained a separate section, the co-called ‘Foreigner File’ (*Ausländerkartei*). These were not systematically collected in ways useful to this thesis. Additionally, the biographical evidence reconstructed in the Appendix is uneven. Additional information, among others, on Hermann Schubnell, Karl Schwarz, Paul-Josef Maaßen, and Hans Redlich would have complemented what has been presented.

This dissertation ends with events in 1973. Nevertheless, the history of labour statistics in West Germany does not end in that year. Data gathering for the new statistics process was not even accomplished and the difficulties of its enactment continued to torment the labour administrators and data experts involved. Publication of the initial results was repeatedly postponed until November 1975 (Hoffmann and Wermter 1976). The reasons for this were many. Until late 1973, the issue of how to finance the new statistics remained unresolved. The issuance of *Betriebsnummernbescheide* and the employers’ slow return of registration cards caused serious delays. Orchestration between BMA, BA, and StBA for the purpose of ‘optimal interpretation of data material’ (*optimale Auswertung des Datenmaterials*)⁴⁹⁴ took until late 1974. The StBA was drawn into the process and officially commissioned by the BMA in December 1975 to assist with the editing and interpretation of data gathered from the integrated notification procedure.⁴⁹⁵

⁴⁹⁴ BA, Niederschrift über die Dienstbesprechung mit den Referenten für Statistik bei den LAÄ am 10. und 11.12.1975, p. 10 in: BAK B119/5009.

⁴⁹⁵ BMA, Ib7, Beschäftigtenstatistik, Entwurf einer Vereinbarung, 15 Oktober 1974, in: BAK B119/5223.

It is probably mere historical coincidence that the publication of the first results of the new statistics fell into the period of economic 'crisis'. Nevertheless, serious world economic problems of the time also had consequences for the statistical infrastructure, not least in terms of increased public attention to statistical productions. Polemics on the assessment of unemployment and the labour force more broadly had been erupting into public space in regular intervals every two or three years from the mid-1970s. Public and governmental attempts cognitively and politically to come to terms with 'the economy' crucially transformed the cognitive and institutional network of social representations in West Germany and beyond. The institutional spaces analysed in this thesis were not excluded from such transformations. The problem of measuring the scope and nature of the crisis was omnipresent. The discourse of German labour administrators shifted slowly from debates on how to establish a new system of employment statistics to fundamental questions of how to delimit and measure unemployment and its rates. An OECD *Working Party on Employment and Unemployment Statistics* was established by mandate of the OECD MSAC in 1975 with a view to measure unemployment and employment (OECD 1979). These developments in the systems of statistical systems were neither confined to West Germany nor to the transnational organisations only. In 1979, the *US National Commission on Employment and Unemployment Statistics* marked the ending of the first phase of its work with the publication of 'Counting the Labour Force' (NCEUS 1979). Official categories and statistical attempts to see and measure social and economic reality, in the eyes of contemporaries, had become fluid again. As I hope to have shown in this thesis, however, with regard to the West German case, these categories and the statistical infrastructure they were embedded in were not particularly stable during the previous, so-called 'golden age' either.

Appendix I: Biographical Notes of Leading Personnel

Anderson, Oskar Prof Dr (1887-1960)

Studied mathematics, physics, economics, and law at the Universities of Kasan and St. Petersburg; assistant of the Russian statistician Tschuprow. Anderson was considered 'perhaps the most widely known statistician in Central Europe' (Tintner 1961: 273) and the last representative of the 'continental school in mathematical statistics' (Sagoroff 1960: 93). He participated in Russia in 1913-17 in a representative sampling survey of agriculture and is counted among the pioneers of modern sample surveys. He left the University of Kiel for a chair in Munich in 1947. He worked closely with the Bavarian StLA and Dr Kellerer on mathematical methods and representative sampling and is considered pivotal in the introduction of these techniques to Bavaria. Anderson was among the founders of the econometric society in 1930.

Baden, Manfred (*1922)

Jurist, employed at the Ministry of Defence before he joined the BMA in 1962, then head of department IIb 'Unemployment Insurance, Civil Defence' (Altmann 2004: 93).

Bartels, Hildegard Dr. (1914-2008)

Started her statistical career in the StLA Hessen in 1946 before moving on to the newly begun StBA in 1948, where she worked in the Department on 'General Subject-Related Coordination, National Accounts'. In 1949, she was appointed Head of that Department and, in 1967, became StBA Vice-President. In 1972, she followed Patrick Schmidt as President of the StBA. With regard to her statistical work Bartels is mostly known for setting up a system of national accounts.

Blind, Adolf Prof. Dr. (1906-1996)

Director of the Statistical Office Saarland (1947-1955), later Minister of Finance of the Saarland and chair of statistics at Frankfurt University 1957-1972. Important economic statistician and eminent epigone of the 'Frankfurt School' in statistics, whose statistical reasoning was rooted in economic and social issues. Co-editor of the *Allgemeines Statistisches Archiv* 1961-1972. (Rinne 1991: 25f.).

Coester, Franz Dr. (*1921)

PhD in economics, avowing Keynesian, since 1966 within the BMA planning group and later in department I (Policy and Planning department, *Grundsatz- und Planungsabteilung*). Was employed at the BMWi (Altmann 2004: 94).

Ernst, Hermann Dr. (*1920)

PhD in law, since 1954 employed at the BMA, head of sub-department IIa 'Labour Market Policy'.

Forsthoff, Ernst Prof Dr (1902-1974)

German scholar of constitutional law, legitimising the Nazi regime during the 1930s, and a leading theorist of administrative law. (See Herrmann (2001) and Klee (2005: 159) for further biographical notes, and Muller (1988) 392-395 for biographical notes in English).

Frank, Johann Dr. rer. pol. (*1929)

Economist (*Diplomvolkswirt*), CDU-member and head of the newly-established BMA department I (*Grundsatz- und Planungsabteilung*) between 1968-69. As with other examples of the BMA restructuring since 1968, Frank epitomised Katzer's attempt to open up his

ministry for economic expertise. Frank worked as an economic journalist with *Die Welt* and the *Deutsche Wirtschaftszeitung* before (Süß 2006: 178).

Fürst, Gerhard (1897-1988)

Studied Staatswissenschaften in Berlin and obtained his PhD in 1923, the same year he joined the Reich Statistical Office in Berlin in the wage statistics department, then in the preparation and evaluation of population and occupational census. In 1930, Furst went to the League of Nations in Geneva where he was responsible for publications as Secretary of the Statistical Expert Committee until 1939. He returned to Berlin in 1940 to join the IG Farben Company where he was head of the economic department.

See Bartels (1967b) and Rinne (1991: 27f.)

Galland, Theodor Dr. jur. (1899-?)

Head of a division of within BMA sub-department Ib 'Economic Policy and Statistical Affairs, International Social Policy' (*Wirtschaftspolitische und statistische Angelegenheiten, Internationale Sozialpolitik*). He completed his PhD on labour market and wage policy in 1926 (University of Frankfurt) and entered the RAVAV in 1935. Co-authored a 1937 textbook on unemployment relief, unemployment insurance and employment service in Germany (Ulrich and Galland 1937). 1939/1940 *Regierungsrat* at LAA Mitteldeutschland (Erfurt), where he was in charge of statistics and public relations. Galland was probably among the very few administrative experts familiar with most of the labour statistical infrastructure in mid-twentieth century Germany, as his various publications testify (most notably Galland 1956). He retired in 1961.

Horstmann, Kurt Dr (1909-?)

Studied Geography and History, PhD in 1933, since 1935 in the Reich Statistical Office and since 1949 head of department 'Population Statistics' (*Bevölkerungsstatistik*) in the StBA. Contributed to the *Festschrift* for Friedrich Zahn (Burgdörfer 1940). Advisor for demographic and social issues in Indonesia 1955/56 and later regional advisor (demographic and social statistics) with the UN Economic Commission for Asia 1966-1970. Collaborated on the establishment of the Asian Statistical Institute, Tokyo. (See Rupp and Schwarz 1983: 589). Horstmann was among those race demographers who, together with Schubnell, Koller and Schwarz, continued their career after 1945 within German official statistics (vom Brocke 1998: 110 and entries on the aforementioned).

Henkelmann, Walter (1912-?)

Law enforcement officer until 1933; entered labour administration in 1946 (LAA Lower-Saxony). Head of DGB department Labour Market Policy and Social Policy. With the foundation of the BAVAV in 1952, appointed employees' representative to the executive board. (Vice-)Chairman since 1967 (alternate with Herbst), BA Vice-president 1970-1975.

Henschel, Hans Dr (1897-?)

1921 PhD in *Staatswissenschaften*, 1928 head of the AA Plauen, participated substantially in the preparation of the Guide Book for Employment Services within the RAVAV. 1933 head of the AA Duisburg; 1936 head of department 'Employment Placement, Vocational Counselling, Productive Unemployment Aid and Statistics' at the LAA Saxony, 1944 *Regierungsdirektor*, until 1947 head of division at the LAA Sachsen, 1955 re-appointment as BAVAV *Verwaltungsrat*, 1958 head of BAVAV department I, 1959 BAVAV Vice-president, 1962 retirement.

Herberger, Lothar (*1924)

Studied Economics and Statistics in Frankfurt/Main. StBA statistician, head of sub-department VIII B 'Employment and Professions' (*Erwerbstätigkeit und Berufe*). Instrumental in bringing about the StBA *Mikrozensus* (

Herbst, Karl-Wilhelm (1910-?)

Bar exam in 1935, lawyer. Various leading positions at the LAA Lower-Saxony and in other AA 1935-1958, Director of the Central Placement Office. Since 1958 Head of BDA department Labour Market Policy and Vocational Training. Employers' representative to the BA executive board. (Vice-)Chairman 1967-1978 (alternate with Henkelmann).

Hüfner, Willi Dr (1908-2010)

Toolmaker by training, later assistant to Karl Mannheim at Heidelberg University was president of the StLA in Hessen 1948-1973 and co-editor of the DStG organ *Allgemeines Statistisches Archiv* (1961-1972). He was mainly concerned with regional statistics. (See Rinne 1991: 31-32).

Kallmeyer, Helmut Dr (1910-2006)

Chemist by training; was one of the specialists in gasification methods and involved in the T4 euthanasia programme during the Third Reich (Klee 2005: 297; Hilberg 1985: 874-876). According to Friedlander (1997: 211-214), Kallmeyer played a vital role in the lethal methods employed in the Lublin region. His involvement (and his wife's) with Nazi killing operations was never fully proven. Kallmeyer worked for the UN in Ghana and Cuba after his employment with the StLA Schleswig-Holstein at the level of *Oberregierungsrat*.

Kästner, Albert Erich Dr. jur. (1904-?)

Lawyer, entered the labour administration in 1934 (LAA Saxony). Prisoner of war 1945-49 in Russia. After his return in 1950, he resumed his career in Lower Saxony, where he became vice-president of the LAA Lower-Saxony in 1959, before being appointed *Oberdirektor* of the BAVAV department I (Labour Market Policy, Employment Service, Vocational Training, Medical Service) in 1962. See info in ABAA (1962).

Käfferbitz, Jakob Dr jur. (1904-1980)

BMA *Ministerialdirigent*, entered the labour administration in March 1932 in Cologne; was appointed *Regierungsrat* in 1936 and *Oberregierungsrat* in 1940. After 1945, Käfferbitz was head of the administrative department of the LAA North-Rhine Westphalia before appointed to the BMA in 1949. In 1955 he was appointed president of the LAA North-Rhine Westphalia, but returned to the BMA as head of department II in November 1961 (until 1969). See info in ABBA (1955) and Altmann (2004: 93).

Kattenstroth, Ludwig (1906-1971)

BMA *Staatssekretär* 1965-1969. During the 1950s he was head of the BMWi energy department, head of Federal Chancellery department Economic and Social Affairs, then *Staatssekretär* in the ministry of finance (*Bundesschatzministerium*, 1963-1965), see Altmann (2004: 92/93), and http://www.bundesarchiv.de/cocoon/barch/0011/z/z1960a/kap1_11/para2_25.html (accessed 18 September 2011).

Kellerer, Hans Prof Dr (1902-1976)

Studied mathematics, physics and economics; received his PhD in 1931 with a work on 'Mathematical Methods in Railways Statistics' Instrumental in the establishment of the statistical department (based on punch-card machines) of the *Reichkraftwagenbetriebsverband* 1937-1942 (Kellerer 1960: 280-1). *Habilitation* in 1951;

1953 Professor of Statistics in Berlin. 1956 Anderson's successor at the University of Munich. Kellerer considered himself an applied rather than a mathematical statistician (Schaich and Strecker 1976: 198). As lecturer and professor oriented his statistical work to show the actual applicability of methods to practical issues. Schaich and Strecker cite the 'introduction, development and dissemination of representative techniques' and 'especially also its application in official and non-official statistics' (Schaich and Strecker 1976: 198) among Kellerer's chief achievements. His early publication on representative methods (Kellerer 1953/1963) was considered to be pivotal in disseminating sampling theories in universities.

Knolle, Herbert Dr (1906-1993)

Between 1950-1971 in various positions at the BMA. 1946-1950 Central Labour Office (*Zentralamt für Arbeit*) of the British occupation zone. 1951-1965 head of BMA sub-department Ia6. 1956-1968 (and until 1965 simultaneously) head of sub-department Ib 'Economic Policy and Statistical Affairs, International Social Policy' (*Wirtschaftspolitische und statistische Angelegenheiten, Internationale Sozialpolitik*): supervisor of Galland. 1968-1971 head of department IV (International Social Policy). Information taken from the online version of the cabinet protocols of the federal government, issued by the Federal Archive Koblenz under http://www.bundesarchiv.de/cocoon/barch/0011/z/z1960a/kap1_11/para2_90.html, accessed 30 September 2011.

Koller, Siegfried Prof. Dr phil. Dr med. (1908-1998)

Medical statistician and, during the Nazi regime, head of the statistical department of Kerckhoff-Institute for cardio-vascular diseases in Bad Nauheim, then lecturer (*Dozent*) for biostatistics in Gießen before he was appointed Head of the Biostatistical Institute at the Medical Faculty in Berlin in 1942. Leading figure in the 'campaign against hereditary diseases' (*Kampf gegen die Erbkrankheiten*) and involved in attempts to establish a scientific basis to eliminate the 'hereditary defective' (*Erbkranke*). Interned until 1952, then *Leitender Regierungsdirektor* at the StBA 1953-63, where he established his reputation as the 'doyen of German data processing' (Gross in Koller 1991: 3010). Between 1963 and 1978, director of the *Institute of Medizinische Statistik*, University of Mainz. Given an order of merit of the FRG in 1982 (Officer's cross). See Klee (2005: 329) and Aly and Roth (1984: 96-115). Koller (1991) likened the 'operating principle' of statistics to the basic functions of the human brain: Both were primarily concerned with ordering and associations (Koller 1991).

Komo, Hans (1912-?)

Studied law between 1930 and 1933. Employed at the army administration (*Heeresverwaltung*) 1938-1946 before entering the labour administration in 1950. Head of AA Wetzlar in 1952, head of department at the LAA Berlin in 1958, 1959 Vice-president of the LAA Hessen before appointed head of BAVAV department IV 'General Administration, Personnel Matters, Statistics, Press' (*Allgemeine Verwaltung, Personalangelegenheiten, Statistik, Presse*) in August 1962, see ABAA (1962).

Krieger, Konrad Dr. Dr. (1893-1959)

Studied business economics and law in Munich, Erlangen and London. Entered the Bavarian statistical service in 1943 after a career as journalist (with *Münchner Zeitung*). Head of the 1950 population census in Bavaria, celebrated for his role in the re-establishment and extension of medical statistics; vice-president of the Bavarian LStA (see Zopf 1959b for more information).

Lacroix, Henri Philippe (nd)

Was the first Chief of the post-war Central Statistical Service within the French Ministry of Labour and Social Security, in which capacity he set up labour statistics based on a representative sample as early as 1945 (in place until 1976) (Lévy-Bruhl 1977: 562). Lacroix continued his career at the ILO from 1950 onwards (see Penissant and Touchelay 2006: 101).

Luyken, Richard Dr (1884-1965)

Published 'The Statistics of the Reich Labour Office' (*Die Statistik der Reichsanstalt*) as *Oberregierungsrat* within the RAVAV in 1936 (Luyken 1936). During the 1940s, he acted as Head of sub-department IV within department V (*Arbeitseinsatz, Arbeitslosenhilfe, Baustoffbedarf, Reichsstock für Arbeitseinsatz, Arbeits- und Sozialstatistik*) in the Reich Ministry of Labour. Instrumental in the re-establishment of the labour market statistics within the Economic Zone (Maaßen 1950a: 66). See the website of family Luyken under <http://www.familie-luyken.de>, accessed 4 April 2011.

Morgenstern, Oskar Prof Dr (1902-1977)

A German-born Austrian school economist who helped to found the mathematical field of game theory at the Institute of Advanced Studies in Princeton.

Nothaas, Josef Dr. (1891-1956)

He was *Oberregierungsrat* in the Bavarian *Staatsministerium für Arbeit und soziale Fürsorge* from 1945. He gained his PhD in *Staatswissenschaften* from the University of Munich in 1920 and subsequently worked as a social statistician in the Bavarian StLA. In 1928 he entered the LAÄ Bavaria before being appointed to the Reich Ministry of Labour in 1930, where he was entrusted with the implementation of social statistical work. Over the maintenance council in Landshut he came as *Referent* of statistics to the Bavarian *Staatsministerium für Arbeit und soziale Fürsorge* in 1945. See his biographical notes in Nothaas (1948: 164) and information gathered by the Federal Archive, under http://www.bundesarchiv.de/aktenreichskanzlei/19191933/0pa/adr/adrmr/kap1_2/para2_76.html, accessed 3 June 2011.

Prinzhorn, Fritz Dr (1893-1967)

Studied mathematics, natural sciences, philosophy and geography. 1918 PhD in zoology, and entered the library service in 1919 (Berlin State library); was director of the Danzig Technical University library in 1929. From 1937 extraordinary professor there and ardent Nazi. Director of the Leipzig university library 1939-1945, co-founder and first president of the German Society for Documentation (*Deutsche Gesellschaft für Dokumentation*) in 1941. Prinzhorn is considered among the most important representatives of the Nazi book policy. Became head of the Foreign Ministry Library in 1951. (See Simon 2005).

Redlich, Hans Dr. (1908-?)

Head of BAVAV and BA statistical service (sub-department IVb) until his retirement in 1970.

Scharlau, Martin Dr (1903-?)

Leading labour statistician of the Nazi labour deployment (*Arbeitseinsatz*), with publications in a 1939 textbook on labour offices (Scharlau 1939), and in the *Reichsarbeitsblatt* and the *Arbeitseinsatz und Arbeitslosenhilfe* (Scharlau 1941; Scharlau 1943). Entered the RAVAV in 1929. Head of department 'Labour Deployment and Statistics' at the AA Essen. 1938 at the RAVAV. After 1945, *Oberregierungsrat* and *Ministerialrat* within BMA sub-department Ib 'Economic Policy and Statistical Affairs, International Social Policy' (*Wirtschaftspolitische und statistische Angelegenheiten, Internationale Sozialpolitik*). Scharlau participated in

several of the OEEC meetings on manpower statistics during the 1950s and was instrumental in the debate of the employment files.

Schäffer, Karl-August Prof Dr (1925-1997)

Director of the seminar for social and economic statistics at Cologne University. Schäffer replaced Prof. Koller as head of StBA department 'mathematical-statistical methods' (*Mathematisch-Statistische Methoden*) in January 1959 (see StBA 1960: 5), and later head of the DStG (1980-84) and chairman of the scientific advice council to the 1987 population census (Grohmann 2010: 59).

Schönefelder, Erwin Dr jur. (1901-2001)

BAVAV *Verwaltungsdirektor* and head of division (*Referent*) at the sub-department 'Employment Placement', had been working for the labour administration from 1928 (cf. Schönefelder 1964: 146). During the Nazi regime, he was employed at the labour deployment (*Arbeitseinsatz*) in Lower-Saxony as *Regierungsrat* and *Oberregierungsrat*. In July 1954, he re-entered the BAVAV, sub-department Ia ('Labour Market and Employment Placement'). He also acted as executive head of the association of BAVAV civil servants (*Verband der Beamten der BAVAV*) within the German Civil Service Association (*Deutsche Beamtenbund*) between 1958-1966. He co-authored a standard commentary on the 1957 'great amendment' to the Law on Employment Placement and Unemployment Insurance (Draeger, Buchwitz et al 1961). In 1966 he continued his career at the BMA, and there, in 1969, co-authored a standard commentary on the Employment Promotion Act.

Siebrecht, Valentin Dr rer. pol. (1907-1996)

Economist and statistician, PhD in 1933, statistician at the LAA Hessen 1938-1945, then head of department for Employment service at the LAA Hessen before appointed head of BAVAV department I (Labour Market Policy, Employment Service, Vocational Training, Medical Service) 1954-57. President of the LAÄ South Bavaria until 1972. Siebrecht was known for his publications on issues of labour market policy and public welfare (*Wohlfahrtspflege*). See ABBA (1973).

Sperling, Hans Dr (1905-?)

Studied law and state sciences, Phd in 1930. Employed at the Reich Statistical Office, then Statistical Office of the British Occupation Zone. Statistician during and after the Second World War, responsible for statistics on damages due to aerial warfare (*Luftkriegsschädenstatistik*). Together with Ernst-Heinrich Weltmann, Sperling represented the StBA in the 'Working Group Occupational Classifications' (*Arbeitsgemeinschaft Berufsklassifizierung*). (See Rupp and Schwarz 1983: 591)

Szameitat, Klaus Dr. (1914-1985)

Received his PhD in History from the Friedrich Wilhelms University Berlin in 1938 and entered the Reich Statistical Office the same year. Before he continued his career as head of department 'General Organisation of Statistics and General Foreign Statistics' (*Allgemeine Organisation der Statistik und Allgemeine Auslandsstatistik*) between 1948 and 1968, he was employed at the Bavarian StLA 1945-1948. Head of the StLA Baden-Württemberg 1968-1980, and member of the International Statistical Institute since 1961. Berkowitz mentions a Klaus Szameitat in his study on the criminalisation of Jews during the 1930s (Berkowitz 2007: 246). Szameitat (if it is the same figure) published articles in June and December 1938 in *Mitteilungen über die Judenfrage*, the in-house publication of the anti-Semitic *Institut zum Studium der Judenfrage*, founded in 1934 by order of the *Reichspropagandaministerium* (Reich Ministry of Information). The articles are entitled 'The End of the Jewish Advocate: Figures on the Jewification of the Lawyer's Profession 1933-1938' (*Das Ende des Jüdischen*

Advokaten. Zahlen über die Verjudung des Rechtsanwaltsstandes 1933-1938), and 'Crime Against the People' (*Verbrechen gegen das Volk*).

Appendix II: Original Quotes in German (Archival Material)

- Page 156: Maaßen (1950a: 66): ‚...überall verbindliche Begriffsbestimmungen und einheitliche Grundsätze für die Arbeitsstatistiken festgelegt‘.
- Page 157: Maaßen (1950a: 66): ‚In Grundsätzen, Gliederung und Technik knüpft die neue Statistik der Arbeitsvermittlung weitgehend an die früheren bewährten Arbeitsmarktstatistiken an‘.
- Page 158: Maaßen (1950b: 403): ‚Sie sah sich wiederholt vor schwierige Aufgaben gestellt, denen sie sich ständig technisch, methodisch und organisatorisch gewachsen zeigen mußte‘.
- Page 158: Maaßen (1950b: 403; emphasis mine): ‚*Ungeachtet* der Zeitwirrnisse und Wandlungen der wirtschafts- und sozialpolitischen Richtungen konnte sie [die deutsche Arbeitsstatistik, JM] wesentliche Fortschritte erzielen‘.
- Page 159: Gegler (1950b: 108): ‚Die Zahl der Arbeitslosen gilt in der Wirtschaft als eines der wichtigsten Symptome ihrer Entwicklung, da sie außerordentlich schnell und empfindlich auf alle saisonalen und konjunkturellen Schwankungen reagiert‘.
- FN 103: ‚In Berlin ist die Frage brennend geworden, inwieweit die Arbeitsämter verpflichtet sind, Auskunft über den Inhalt ihrer Karteien usw. an dritte Stellen zu geben‘, in: Der Senator für Bundesangelegenheiten to the BMA, betr.: Auskunftspflicht der Arbeitsbehörden, 19 November 1951, in: BAK B149/862.
- FN 108: ‚...ergibt sich ohne weiteres aus der Tatsache, daß alle Behörden unbeschadet ihrer kompetenzmäßigen Sonderung als Behörden eines Staates einer gemeinsamen Sache zu dienen haben‘, in: Forsthoff as cited in Der Bundesminister für das Post- und Fernmeldewesen to the BMA, 14 August 1956, p. 3., in: BAK B149/862.
- FN 109: ‚... interne technische Hilfsmittel der Arbeitsämter‘, in: BMA (Iib2, Becker) to the BMPF, betr.: Erteilung von Auskünften aus der Arbeitnehmerkartei (Entwurf), October 1956, in: BAK B149/862.
- FN 110: ‚... zweckfremde Verwendung amtlicher Unterlagen‘, in: BMA (Iib2, Becker) to the BMPF, betr. Amtshilfe durch die Arbeitsämter (Entwurf), October 1957, in: BAK B149/862.
- FN 130: ‚übernimmt aus Gründen der Rechtssystematik inhaltlich im wesentlichen den § 24 des Kündigungsschutzgesetzes vom 10 August 1951 [...] dessen Aufhebung [...] vorgesehen ist‘, in: Bundestagsdrucksache 1274, 1956., p. 354.
- FN 131: ‚diese Kartei [konnte] aus arbeitsmarktpolitischen und wirtschaftspolitischen Gründen nicht entbehrt werden‘, in: Begründung zum Regierungsentwurf, Bundesratsdrucksache Nr. 358/54, p. 108).
- Page 176: Galland (1956: 48): ‚Laufend findet ein Austausch zwischen diesen beiden Abschnitten statt; daneben verändern sich die Bestände an AK ständig durch Zugänge aus Personen, die bisher nicht als Arbeitnehmer tätig waren (z.B. Schulentlassene, zugewanderte Personen usw.) und durch Abgänge infolge von Todesfällen, Abwanderungen, Übergang in selbstständige Tätigkeit, Invalidität usw.‘.
- Page 176: Galland (1956: 32): ‚Eine laufende Erfassung des Bestandes an Beamten in seiner Veränderung durch die Beschäftigtenkartei der Arbeitnehmer ist nicht gesichert. Erfasst werden teilweise die Abgänge durch Tod, aber nicht die Abgänge infolge des Erreichens der Altersgrenze oder sonstiger Ausscheidungsgründe (z.B. wegen Entlassung aus dem Dienst)‘.
- Page 178: Galland (1956: 49): ‚Der Ansager entnimmt jede einzelne Karteikarte ihrem Kasten und ruft dem Strichler die Angaben zu, die er in der Liste durch senkrechte Striche festzuhalten hat‘.
- Page 179: Galland (1956: 37): ‚Die Zählung der beschäftigten Arbeitnehmer baut sich technisch auf der Arbeitnehmerkartei auf‘.
- FN 146: ‚...die Beschäftigtenkartei (wird) als Hilfsmittel der Verwaltung angesehen und in den Vermittlungsstellen der Arbeitsämter geführt‘, in: Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern am 28. und 29. November 1961 in: BAK B149/12324.
- Page 179: Schönefelder (1964: 148): ‚einen bedeutsamen Wahrheitsgehalt‘.

- Page 182: Galland (1956: 50): ‚erst mittelbar und allmählich auf die Zahl der Beschäftigten im ganzen oder in gewissen Wirtschaftsbereichen im einzelnen‘.
- Page 182: Galland (1956: 50): ‚sich in positiver oder negativer Richtung meist auch über mehrere Erhebungszeitpunkte hinweg [...] bis ihre Auswirkung zum Stillstand kommt‘.
- Page 186: Szameitat und Zindler (1962: 379): ‚Beschleunigt und auf einen Bruchteil des bisherigen Zeitaufwandes reduziert wird lediglich die abschließende Phase der machinellen Sortier-, Rechen- und Tabellararbeiten‘.
- Page 186: Schmidt-Schmiedebach (1955: 10): ‚...der in der Lage ist, Verwaltungsprobleme, wenn es sein muß auch als technische Konstruktionsaufgabe zu erkennen und zu lösen‘.
- Page 186: Hüttner (1972: 39): ‚...daß mindestens die Mitarbeiter des höheren und eines Großteils des gehobenen Dienstes die Grundzüge und Probleme der machinellen Aufbereitung kennenlernen‘.
- Page 187: Nothaas (1948: 23): ‚Wenn dagegen bei einer Erhebung nur verhältnismäßig wenig Merkmale erfragt werden und diese Merkmale nur in einer Kombination auf die Tabelle übertragen werden, so wird die Verwendung von Hollerith- oder Powersmaschinen unrentabel‘.
- Page 191: Zopfy (1955: 308): ‚Sein Wert [die Stellung im Beruf, JM] ist infolge seiner Primitivität für subtilere Untersuchungen sehr fragwürdig‘.
- Page 191: Horstmann (1958: 21, emphasis in original): ‚...die Art der Erwerbstätigkeit einer Person mit *einem* Merkmal allein nicht ausreichend charakterisiert werden kann‘.
- FN 159: ‚...eine Nachweisung der Arbeiter nach Qualifikationsstufen‘, in: An die Mitglieder des Arbeitskreises für die Vorbereitung der Volks- und Berufszählung 1960, Tagung am 15. und 16. März 1955, 1. März 1955, p.7 in: BAK B128/3756.
- Page 192: Zopfy (1955: 309; 308): ‚Die statistische Praxis zeigt uns, daß [...] jede Erfragung des Einkommens als ein Eingriff in eine höchst private Sphäre betrachtet [wird]‘. ‚Eine solche Gelegenheit wäre in der Vergangenheit beispielsweise die Ausstattung der gesamten Bevölkerung mit Arbeitsbüchern und die Eintragung einer statistischen Kennziffer in diese Bücher [...] gewesen‘.
- Page 204: Maaßen (1950b: 403): ‚Das altbewährte internationale Ansehen der deutschen Arbeitsstatistik besteht auch heute noch...Der ‘Ausschuß für Arbeit’ in der ‘Organisation für die wirtschaftliche Zusammenarbeit in Europa’, und zwar die Gemischte Arbeitsgemeinschaft für statistische Fragen‘, befaßte sich in letzter Zeit näher mit Fragen des statistischen Dienstes der deutschen Arbeitsverwaltung. In zwei besonderen Berichten hat er die vorbildliche deutsche Organisation anerkannt‘.
- Page 214: Wagemann (1935: 20): ‚Statistik ist die Wissenschaft der empirischen Zahl‘. ‚Mathematik ist die Wissenschaft der reinen Zahl‘.
- Page 214: Nicolas (1952: 63): ‚Die Statistik muß die Merkmale ihrer Forschungsgegenstände erst in mühevoller Kleinarbeit in der Wirklichkeit nachweisen‘.
- Page 214: Nicolas (1952: 63): ‚...von vornherein mit bestimmten Eigenschaften ausgestattet, die der Statistiker so hinnehmen muß, wie sie sind ...‘.
- Page 214: Nicolas (1952: 63-4): ‚Es liegt nahe, daß die Mathematik diese Eigenschaften so wählen wird, daß sie in bezug auf die ihr gestellte Aufgabe der formalen Ordnung und Verknüpfung besonders erfolgsversprechend sind. Das ist der Grund, weshalb die Ordnung und Verknüpfung in der Mathematik im allgemeinen soviel weitergetrieben werden kann als in der Statistik‘.
- Page 215: Nicolas (1952: 28): ‚Stets nimmt sie [die Statistik, JM] dabei die Begriffe so hin, wie sie gegeben sind [...] Zu ihren Aufgaben gehört weder die Definition empirischer Begriffe noch das Forschen nach den Ursachen ihrer Entstehung, sie befaßt sich lediglich mit ihrer formalen Ordnung‘.
- Page 215: Wagemann (1935: 218): ‚Sobald eine empirische Zahl auftritt, die methodisch behandelt wird, liegt nach der von mir vertretenen Auffassung ein statistisches Verfahren vor, und zwar gleichgültig, ob diese empirische Zahl wie aller Regel nach in der Sozialstatistik real gegeben ist oder hypothetisch wie in der Atomphysik, oder auch wie bei den bevölkerungswissenschaftlichen Extrapolationen‘.

- Page 215: Wagemann (1935: 218): ‚Alle Rechenoperationen bedeuten hier eine Verknüpfung der statistischen mit der mathematischen Zahl‘.
- Page 215: Nicolas (1952: 47; emphasis in original): ‚in der Erfahrungswelt tatsächlich realisiert‘ ‚realisiert vorgestellte‘ [...] ‚in die Erfahrungswelt *transponierte* Begriffe‘.
- Page 216: Nicolas (1952: 47): ‚... – Transponierung in die Erfahrungswelt – Gefühlswerte, Fabelwesen (Statistik der Hölle!) usw. echter statistischer Behandlung zugänglich gemacht werden‘.
- Page 216: Kellerer (1960: 7): ‚Die Statistik ist nicht in erster Linie eine Technik der Zahlengewinnung und -verarbeitung, sondern vor allem eine wissenschaftliche Methode‘.
- Page 217: Anderson (1954/1965: 17): ‚...allenfalls darin, ob die angewandte Mathematik dem Verwaltungs- oder Fachstatistiker verständlich bleibt‘.
- Page 217: Anderson (1954/1965: 17, entire quote): ‚Eine ‘Wissenschaft’, deren Definition die Bedingung enthält, daß sie für einen ‘gehobenen Beamten’ leicht verständlich bleibe, ist als vollberechtigter Gegenstand eines Universitätsstudiums undenkbar‘.
- Page 218: Kallmeyer (1956: 19): ‚Aus den bekannten Regeln über die Fehlerfortpflanzung geht hervor, dass die Anschauungen [between ‚classical‘ and the ‚mathematical‘ statisticians, JM] gar nicht so unvereinbar sind, wenn man nur die Grenzen, unter denen es zu einem Ausgleich oder zu einer Fortpflanzung oder zu einer Vervielfachung des Fehlers kommen kann, genau absteckt‘.
- Page 219: DStG (1961: 370): ‚Die Entwicklung der modernen Statistik schreite [...] so rasch voran, daß schon ein Fachstatistiker nicht mehr in jede Richtung damit Schritt halten könne‘.
- Page 219: DStG (1961: 371): ‚...daß man die Methoden und Techniken der Erhebung und Aufbereitung ohne Schaden für das Ganze der Statistik aus der Hochschulausbildung herausnehmen und den statistischen Ämtern überlassen können...‘.
- Page 219: DStG (1961: 371, emphasis in original): ‚...in der Regel primär lernen, *was* gemessen werden soll, und erst auf dieser Grundlage, *wie* gemessen werden soll...‘.
- Page 220: DStG (1961: 369): ‚Er solle aber in der Lage sein, dem Rechenzentrum seine Probleme klar und verständlich darzulegen, und dazu müsse er etwas über die Problemsprache wissen‘.
- Page 228: Kallmeyer (1956: 34): ‚...sich bestimmte Fehler nach den Regeln der Fehlerfortpflanzung ausgleichen‘.
- Page 228: Kallmeyer (1956: 34): ‚...kommentarlos einen festgestellten Fehler anzugeben, denn man würde dadurch einem wechselnd großen Teil der Verbraucher unnötigerweise eine viel zu schlechte Vorstellung der für sie erzielbaren Genauigkeit vermitteln‘.
- Page 230: Krieger (1953: 196): ‚Sein, des Deutschen, Reich ist mehr der abstrakte Begriff, sind Phantasie, Gefühl, also der Zahl entgegengesetzte Pole menschlicher Vorstellungswelt. [...] Unbewußt wehrt sich der Deutsche gegen den Eingriff der Zahl in seine Welt des Irrationalen‘.
- Page 230: Krieger (1953: 196): ‚...so alt wie die statistische Zahl‘.
- Page 230: Lorentz in Krieger (1953: 196): ‚Das, was uns not [sic!] tut, ist eine planmäßige Erziehung des Staatsbürgers zum Verständnis für das Wesen der Statistik...‘.
- Page 230: Krieger (1953: 197): ‚...Inquisitionen des Dritten Reiches und durch die politischen Fragebögen der Besatzung. [...] die latente Neigung zur Negation der statistischen Erhebung [wurde] bis zum offenen Widerspruch gesteigert‘.
- Page 230: Süskind (1950): ‚...der zerbrochene, der entleerte Mensch, der plötzlich aus innerer Leere mit dem arithmetischen Durchschnitt ernst macht und in einem wahnwitzigen Masochismus der zu sein begehrt, als den ihn die Statistik hinstellt...dann ist der Augenblick gekommen, da der gelenkte Staat, der nur allzu gern die bedingungslose Unterwerfung des Menschen unter die Statistik mit ansah und förderte, den Menschen einkassiert, indem er aus dem ‚Ist‘ der Statistik vollends ein ‚Soll‘ macht und dessen Erfüllung eintreibt...‘.

- Page 231: Krieger (1953: 198): ‚Vermassung ist ein Vorgang, eine Entwicklung, ist Dynamik, und Statistik der Maßstab, die Erscheinung zu messen‘. [...] Dadurch, daß Statistik feststellt, was geworden, und selbst dann, wenn sie im Verfolg des Gewordenen berechnet, was vielleicht werden wird, leistet der Vermassung nicht Vorschub, im Gegenteil, sie macht auf bestehende und kommende Erscheinungen aufmerksam‘.
- Page 231: Krieger (1953: 198): ‚Der selbständig denkende, um eigenes Urteil sich mühende Mensch braucht die Statistik und findet in ihr den Anhaltspunkt für das Gesetz seines Handelns‘.
- Page 231: Krieger (1953: 196): ‚Der Statistiker bedarf, wenn er soziale Erscheinungen aufdecken und deuten soll, des Zusammenhangs mit dem täglichen Leben, braucht den Impuls der Zeit und die Beobachtung des Auf und Ab im ständig sich wechselnden Bild sozialer Gemeinschaften‘.
- Page 231: Krieger (1954: 115): ‚[setzt sich ein für] fest umrissene, handgreifliche und praktische Ziele‘.
- Page 232: Krieger (1954: 115, entire quote): ‚Sie [die Statistik, JM] ist so unentbehrlich wie Geld, Stahl oder Auto‘.
- Page 232: Krieger (1954: 112): ‚...wenn es vor 1933, wie andere Völker, dazu erzogen gewesen wäre, Tatsachen zu sehen und nach Wirklichkeiten zu urteilen‘.
- Page 232: Krieger (1954: 112): ‚Einen Menschen zur Urteilsfähigkeit zu erziehen, bedeutet nicht ihn gegen Schönheit und Kunst abzustumpfen und ihn zum Roboter zu entwickeln. Pflegen wir mit allen Mitteln das Gefühl und alle geistigen Ströme, die sich der statistischen Messung entziehen aber lassen wir auch dem Verstand, was des Verstandes ist und geben wir ihm die Helfer, die er braucht. Ein solcher Helfer ist die Statistik‘.
- Page 232: Süskind (1951/1963: 27): ‚Solch magisch beruhigenden Lichter hat es auch im Luftschutzkeller gegeben; ich könnte mir auch eine beinahe ausgestorbene Welt vorstellen, in der sie immer noch funktionieren und Ordnung, also beinahe schon Trost, verkünden‘.
- Page 232: Süskind (1951/1963: 27): ‚Wie gern antwortete ich mit Ja oder Nein, aber immer wieder muß ich dem jungen Mann [...] Gegenfragen stellen: ob er meint, wirksam bei kritisch mithörenden oder bei nur einschulrnfenden Hörem? Ob er meint, gefällig für Leute, die gern sachte oder gern laut angesprochen werden?‘.
- Page 233: Süskind (1951/1963: 28): ‚...scholastisches Gebündel von Einerseits und Andererseits...klares Ja und Nein‘.
- Page 233: Süskind (1951/1963: 29): ‚sauberen...zutreffenden Ergebnissen ihrer [Gallup und Konsorten] Umfrage‘.
- FN 210: ‚ein Teil der Presse die Zahlen beider Erhebungen miteinander verglichen hat, ohne auf die den Vergleich einschränkenden Gründe hinzuweisen‘. See Sitzung des Vorstandes am 16. Und 19. November 1959. Betr.: Unterschiede zwischen den Ergebnissen der Beschäftigtenstatistik der Bundesanstalt und des Mikrozensus, in: BAK B149/12324.
- FN 212: ‚Ungewissheit über das Fortbestehen der Kartei‘. See Weiterführung der Beschäftigtenkartei der BAVAV, Ergebnisprotokoll einer Sitzung mit Mitgliedern des Vorstandes und des Verwaltungsrates der BAVAV Kommission am 20.7.61 im BMA, 10. August 1961, in: BAK B149/12324.
- FN 213: ‚in seinem Bestand bisher noch nicht gesichert...Er ist seiner Zweckbestimmung nach und durch die Belastung mit technischen und methodischen Besonderheiten (z.B. durch die subjektive Beeinflussung der Angaben der Auskunftspersonen) nicht geeignet, derartige Angaben sicherzustellen‘. BMA Oberregierungsrat Schmidt here refers to ‘Angaben in der erforderlichen fachlichen Gliederung und Periodizität’, for which he believed the BAVAV employment file still to be indispensable. See BMA, Abteilung I, Fortführung der Beschäftigtenkartei, 31 December 1959, in: BAK B149/12324.
- Page 250: Fürst (1959: 115): ‚Die Zahl der arbeitenden Menschen und die von ihnen geleistete Arbeit zu erfassen...‘.
- Page 250: Fürst (1959: 115): ‚die Art der Tätigkeit und die den einzelnen Tätigkeiten während eines bestimmten Zeitraumes gewidmete Arbeitszeit‘.

- FN 218: ‚die Ergebnisse der mit einem Verwaltungsakt verbundenen Statistik in mancher Beziehung zuverlässiger seien‘. ‚...bei großen Karteien dieser Art erfahrungsgemäß mit einer Überhöhung der Zahl der Fälle zu rechnen sei, da die Abgänge weniger genau erfaßt werden, als die Zugänge‘, see Protokoll über die 6. Tagung des Statistischen Beirats am 5. und 6. Mai 1959 in Wiesbaden, in: BAK B128/3756.
- FN 219: ‚halte ich die Herausgabe von Karteirichtlinien, in denen die einschlägigen Bestimmungen zusammengefasst sind, nicht für angebracht‘. BAVAV, IVb3, an den Bundesminister für Arbeit und Sozialordnung, Definition des Begriffs ‚Beschäftigter‘ in der Statistik, Vorgang: Ihr Schreiben vom 16.6.62, 13 July 1962, in: BAK B149/12324.
- FN 220: ‚besonders viel Wert auf Begriffsbestimmung‘, in: BAK B119/12 (no title, no date).
- FN 224: ‚es ist nun unverzüglich bei allen Arbeitsämtern die Organisation der Vermittlungsabteilung nochmals unter dem Gesichtspunkt einer Straffung und Anpassung an die veränderte Geschäftslage durchzuführen‘. ‚Die erste Fachkraft, die die Verantwortung für eine derartige Vermittlungsstelle trägt, soll künftig als Hauptvermittler bezeichnet werden‘. ‚...statistische Auszählungen sowie das Ordnen und Abstellen der erledigten Auftragskarten, Vermittlungskarten und sonstigen Schriftsachen‘, in: BAVAV, Ia3, der Präsident, an die Landesarbeitsämter, Organisation und Arbeitsvermittlung, 28 April 1960, in: BAK B119/3138.
- Page 253: Henkelmann (1964: 51): ‚die Gegebenheiten eines freien Arbeitsmarktes‘.
- Page 253: Henkelmann (1964: 51): ‚Jeder Arbeitnehmervertreter muß einer solchen Regelung widersprechen, weil sie die Arbeitnehmer ihrer Grundrechte beraubt und die Arbeitsämter wieder zu dem macht, was sie in der Nazizeit waren, aber niemals wieder werden dürfen, nämlich ‚Zwingburgen gegen die Arbeitnehmer‘‘.
- Page 253: Herbst (1964a: 49): ‚ich weiß bereits alles über Dich‘.
- Page 254: Herbst (1964a: 49): ‚Hierbei muss der Mensch im Mittelpunkt stehen mit seinen vielfältigen Anlagen, seinem beruflichen Werdegang, aber auch mit seinen beruflichen Wünschen, seinen persönlichen Belangen und seiner soziale Situation‘.
- Page 257: Schönefelder (1964: 145): ‚Eine Beratung ist um so sachdienlicher, je besser sie vorbereitet oder anhand einwandfreier Unterlagen geführt werden kann, die auf dem laufenden sind und den wesentlichen Sachverhalt rasch erkennen lassen‘.
- Page 257: Schönefelder (1964: 145): ‚vertrauensvolle Aussprache auf das akute Anliegen des Arbeitssuchenden‘.
- Page 257: Schönefelder (1964: 145): ‚Gute Vorbereitung anhand einer Gedächtnisstütze ist die beste Voraussetzung für eine gründliche, gerechte, im besten Sinne soziale und menschenfreundliche Beratung‘.
- Page 258: Schönefelder (1964: 146): ‚...so schnell wie möglich über alles Erforderliche im Bilde ist und ihn [the job seeker, JM] zügig beraten kann; so faßt er Vertrauen zur Fachkenntnis des Vermittlers‘.
- Page 259: Kruse (1964: 177-8): ‚...sind nur bedingt zu verwenden, selbst dann, wenn der Vermittler den Eindruck gewonnen hat, daß der Ratsuchende ihm nachteilige Dinge nicht verschwiegen hat‘.
- Page 259: Degen (1964: 122): ‚Arbeitsgesuche und Beratungsgespräche müssen sinnvollerweise schriftlich festgehalten werden. Ohne schriftliche Unterlagen würde die Arbeitsvermittlung wieder in Arbeitsnachweis unerfreulichen Angedenkens mit dem börsenartigen Ausruf der zufällig gemeldeten offenen Stellen ausarten‘.
- Page 259: Schönefelder (1964: 146): ‚das geordnete Zusammenleben in unserem hochentwickelten Staate‘.
- Page 259: Schönefelder (1964: 146): ‚diffamierende Registrierung, die den Menschen zum bloßen Objekt, zur vertretbaren Größe abwertet, sondern im Gegenteil für jeden Arbeitnehmer um einen Beleg im Sinne der Bestätigung seiner individuellen beruflichen Persönlichkeit zum Zwecke der Daseinsvorsorge, in seinem und der Allgemeinheit Interesse‘.
- Page 260: Forsthoff (1938: 26): ‚diejenigen Veranstaltungen, die zur Befriedigung des Appropriationsbedürfnisses getroffen werden‘.

- Page 260: Forsthoff (1950/1973: 370): ‚...sollen alle Leistungen der Verwaltung an die Staatsgenossen zugerechnet werden‘.
- Page 260: Forsthoff (1950/1973: 371): ‚hoheitliches Handeln unter Anwendung überlegener Zwangsgewalt‘.
- Page 261: Forsthoff (1950/1973: 529): ‚...die den Gemeinden und Gemeindeverbänden zuerkannte Selbstständigkeit gegenüber dem Staat. Sie [die Worte ‚in eigener Verantwortung‘, JM] schließen die Eingliederung der Gemeinden und Gemeindeverbände in den hierarchischen Aufbau des Staates aus‘.
- Page 262: Schönefelder (1964: 149): ‚...ohne staatliche und korporative, nunmehr sogar supranationale Interventionen der verschiedensten Art [kommen] nicht mehr aus ... erst recht nicht bei sozialer Marktwirtschaft und echter staatlicher Daseinsvorsorge‘.
- Page 262: Schönefelder (1964: 149): ‚...überaus feinnerviges, komplexes Gebilde‘.
- Page 262: Schönefelder (1964: 148): ‚regional bis in den kleinsten Nebenstellenbereich, und zwar nach 98 Wirtschaftszweigen, ..., Berufen, Alter, Geschlecht, in der Kombination bestimmter Merkmale‘.
- FN 233: ‚...wenn die Beschäftigtenkartei durch ein Ermittlungssystem ersetzt werden könne, das bei niedrigerem Aufwand in gleicher Weise die bisherige statistische Berichterstattung sicherstellt‘. ‚diese Kartei [konnte] aus arbeitsmarktpolitischen und wirtschaftspolitischen Gründen nicht entbehrt werden‘, in: BMA, note for the Meeting of des BAVAV administrative board on 9 and 10 March 1961, Frage der Weiterführung der Beschäftigtenkartei, 7 March 1961, in: BAK B149/12324.
- FN 236: ‚Angaben nur aus der Vermittlungskartei [sind] nur sehr beschränkt für die Beobachtung des Arbeitsmarktes verwendbar, wenn sie nicht in Beziehung zu Angaben über die Zahl der Arbeitnehmer (Arbeitslosenquote) gesetzt werden können‘, BMA, Ib2, ORR Schmidt, Fortführung der Beschäftigtenkartei, 31.12.59, in: BAK B149/12324.
- Page 264: Galland (1958: 39): ‚Die Vorbereitung entsprechender Gesetzesentwürfe (Legislative) macht es in der Regel erforderlich, daß der zu regelnde Tatbestand auch nach seinen Größenverhältnissen bekannt ist, daß Vorstellungen darüber bestehen, wieviele Personen von dem geplanten Gesetz in positiver oder negativer Weise vermutlich betroffen werden‘.
- Page 264: Galland (1958: 39): ‚am Beginn eines jeden sozialen Gesetzes steht heute die Zahl‘. ‚...für die Dauer der Teilnahme am Erwerbsleben‘.
- Page 264: Galland (1958: 39): ‚dergestalt, daß Ursachen hier Wirkungen dort auslösen können und umgekehrt‘.
- Page 264: Galland (1958: 39): ‚als Grundlage von Verhandlungen der Ressorts untereinander‘.
- Page 265: Galland (1958: 40): ‚anhand dessen sie ihre Ausführungen über wirtschaftliche oder soziale Tatbestände belegen können‘.
- FN 241: ‚solche detaillierte Angaben von der Praxis benötigt werden‘, see Vermerk, BMA, Ib3, Betr.: Statistik der beschäftigten Arbeitnehmer, 7 March 1961, in: BAK B149/12324.
- FN 242: ‚...die Statistik heute kein vordringliches Interesse an der Beibehaltung der halbjährlichen Totalauszählung der beschäftigten Arbeitnehmer mehr habe‘. See Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6 June 1961, in: BAK B149/12324.
- FN 244: ‚vier Hauptbereichen der Wirtschaft, nach Bundesländern und groben Altersschichten‘, in: See Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6 June 1961, in: BAK B149/12324.
- FN 246: ‚laufende Zahlenberichterstattung über detaillierte Fragen‘. ‚...eine Fortführung der gesamten Kartei [sei] nach dem heutigen Stand der Dinge kaum mehr zu verlangen‘. ‚von mathematischen Experten zu beantworten‘, in: See Vermerk, Betr.: Beschäftigtenstatistik, hier: Arbeitskartei, BMA, Ib3 (Galland), 6. Juni 1961, in: BAK B149/12324.
- FN 249: ‚Korrekturzahlen über den G-Anteil der Beschäftigten einzelner Bezirke und Berufsgruppen‘. ‚die für ausländische Arbeitskräfte bestehende Zentralkartei und die örtliche Karteien der Arbeitsämter von der etwaigen Neuregelung der Beschäftigtenkartei nicht berührt werden‘, in: Ergebnisprotokoll, Betr.:

Weiterführung der Beschäftigtenkartei der BAVAV, BMA, Ila3, 10 August 1961, in: BAK B149/12324.

Page 270: Gegler (1950a: 11): ‚Vom Standpunkt des einzelnen Arbeitsamts wird es immer unbefriedigend bleiben, daß eine Auszählung [...] für den Gebietsbereich des Arbeitsamtes nicht verwertbar ist, sich die Verwertung vielleicht sogar aus Gründen der statistischen Wahrheit verbietet und die Ergebnisse erst auf der Ebene des Landesarbeitsamtsbezirks größere Wahrscheinlichkeit erhalten‘.

FN 250: ‚die umfassendste Ansammlung von Familiennamen [...], die es wohl gegenwärtig gibt und Personen in allen Teilen der Bundesrepublik in gleicher Weise erfaßt‘, taken from a 1962 publication entitled ‚Frequency and Distribution of Initial Letters among Family Names in the Federal Republic of Germany (including West-Berlin) (Häufigkeit und Streuung der Anfangsbuchstaben bei den Familiennamen in der BRD einschließlich Berlin (West)), in: BAK B B149/12324.

FN 251: ‚wie häufig die verschiedenen Buchstaben des Alphabet als Anfangsbuchstabe bei den Familiennamen der Arbeitnehmer vorkommen‘. ‚...jeder auch nur geringfügige Fehler den Wert künftiger Repräsentativerhebungen wesentlich beeinträchtigt‘, in: BAVAV, IVb3 (Dr. Degen), An alle Dienststellen der Bundesanstalt, Auszählung der Suchkartei, 13 November 1961, in: BAK B149/12324.

FN 253: ‚...wie verschieden sich zwei Buchstaben hinsichtlich der Streuung verhalten können‘, article excavated from: BAK B B149/12324.

FN 260: ‚Seit etwa 15 bis 20 Jahren wird Statistik international definiert als ‚Methodenlehre, als eine Zusammenfassung von Methoden, die es erlauben, vernünftige Entscheidungen im Falle von Unsicherheit zu treffen‘, in: Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern 24. Und 25. November 1964, p.12, in: BAK B149/12324.

FN 261: ‚...landläufige Meinung, Statistik sei eine Auszählung von Fragebogen [sic] oder Karteien und Fertigung von Tabellen und Graphiken‘, in: Niederschrift über die Tagung der Referenten für Statistik bei den Landesarbeitsämtern 24. Und 25. November 1964, in: BAK B149/12324.

Page 281: Galland (1962: 933): ‚Seitdem die Zahl der unbesetzbaren Stellen ständig höher liegt als die Zahl der vorhandenen Arbeitslosen, ist die Besetzung dieses Mißverhältnisses auf dem Arbeitsmarkt zu einem Zentralproblem der wirtschaftspolitischen Auseinandersetzung geworden‘.

FN 320: ‚...alle Komponenten der Nachwuchslage, die biologische Entwicklung der Bevölkerung, Wandlungsvorgänge, Beteiligung am Erwerbsleben u.a.m.‘ ‚... laufend und mit der wünschenswerten Anwendung verfeinerter Methoden‘, in: StBA, the President Gerhard Fürst to the Ministry of Labour and Social Order, betr.: Haushaltsvorschlag 1964, 26 April 1963, in: BAK B149/8598.

FN 321: ‚...daß der Begriff der Erwerbstätigkeit‘ vielschichtiger sei, als man bisher selbst bei den großen Volks- und Berufszählungen angenommen habe und daß man unter ‚Kräftepotential‘ eben nicht eine eindeutige Größe verstehen könne...‘. ‚teils von der Fragestellung, teils von der Auskunft der Befragten [abhänge]‘, in BMA, Ib3 (Galland), Bericht über eine Besprechung im Statistischen Bundesamt on 26 February 1959, in: BAK B149/863.

Page 306: Galland (1962: 933): ‚...etwas Nichtvorhandenes, Fehlendes, das in einer Zahl darzustellen zusätzliche Schwierigkeiten macht‘.

Page 306: Galland (1962: 933): ‚...der Ruf nach der Zahl‘. ‚Schiedsrichter‘.

Page 307: Galland (1962: 933, emphasis mine): ‚Hinzu kommt ferner, dass die Statistik das, was ‚unsichtbar‘ ist und *bleiben will*, nicht sichtbar machen kann‘ (entire quote).

Page 307: Galland (1962: 933): ‚...gutem Willen der Beteiligten‘.

Page 307: Galland (1962: 933): ‚...ein Markt überall und nirgends bilden kann nicht nur dort, wo er monopolisiert und konzentriert werden soll. Denn ‚Bedarf‘ entsteht, verschwindet und bildet sich ständig neu‘.

Page 308: Galland (1962: 933): ‚Um ihn [Arbeitskräftebedarf, JM] zu quantifizieren, muß man versuchen, ihn als Begriff erfäßbar zu machen‘.

Page 308: Galland (1962: 940): ‚...welchen Nutzen Kräftebedarfsberechnungen, die sich gewissermaßen im leeren Raum bewegen, in der Praxis haben können‘.

- Page 309: Galland (1962: 939): ‚...welche Kenntnisse und Fertigkeiten unter der gleichen Berufsbezeichnung zusammengefaßt sind ...[andernfalls] ist man nicht sicher, ob ‘Schmiede’ nicht ein Konglomerat von Eisen-, Blech-, Kupfer- und Goldschmieden darstellen’.
- Page 309: Galland (1962: 940): ‚Eine Globalangabe (Summenzahl) nutzt ... für die praktische Aufgabe der Kräftebedarfsdeckung überhaupt nichts, da nicht Kräfte schlechthin, sondern Landarbeiter, Maurer, Schlosser, Haushaltsgehilfinnen usw. benötigt werden’.
- Page 310: Galland (1962: 933): ‚...Bedarf an Winterkartoffeln für eine mittlere Stadt’.
- Page 311: Redlich (1967: 207): ‚Als offene Stellen gelten die dem Arbeitsamt zur Vermittlung gemeldeten Arbeitsplätze im Bundesgebiet einschließlich Berlin (West) für namentlich nicht benannte Arbeitnehmer und Heimarbeiter, gleichgültig, ob die Arbeitsplätze mit Deutschen oder Nichtdeutschen besetzt werden sollen’.
- Page 311: Siebrecht (1959: 111): ‚Die Auswertung dieser Zahlen ... sollte nur mit Vorsicht geschehen’. ‘sehr wohl über die Tendenzen der Nachfragesituation einiges aussagen.’ ‘Sie sind ... auch ein Beleg dafür, daß der Arbeitsmarktausgleich an viele qualitative und sonstige Voraussetzungen gebunden ist und sich nicht schematisch-quantitative vollziehen kann’.
- FN 333: Fürst: ‚...Gliederung nach Wirtschaftsbereichen stehen geeignete Unterlagen bisher nicht zur Verfügung’. ‚personell und haushaltsmäßig nicht auf diese Aufgabe zugeschnitten, in: Statistisches Bundesamt, der Präsident, an das Bundesministerium für Arbeit und Sozialordnung, betr.: OECD Ausschuß für Arbeitskräfte; hier: Jahresprogramm 1964, 27 January 1964, in: BAK B149/8065.
- FN 334: ‚...starke Bedenken gegen die Nützlichkeit solcher Prognosen’. ‚hinreichend garantiert ...keine große praktische Bedeutung’, in: Bundesverband der Deutschen Industrie, Abteilung Sozialwirtschaft und Industrieforschung to the BMA (Dr. Kafferbitz), 22 January 1964, in: BAK B149/8065.
- Page 315: Bartels (1967a: 65): ‚...darüber hinaus aber auch alle verfügbaren nichtamtlichen Statistiken, Ergebnisse und Tendenz- und Motivbefragungen, Kenntnisse über wirtschaftliche und technische Gegebenheiten sowie über Gründe und Absichten, die sich aus Veröffentlichungen, aus Gesprächen und aus der Zusammenarbeit mit allen für Wirtschaftsleben verantwortlichen Kreisen ergeben, und nicht zuletzt auf die neuesten theoretischen Erkenntnisse über die die Wirtschaft bestimmenden Faktoren und die Zusammenhänge im Wirtschaftsablauf’.
- Page 315: Fürst in DStG (1967: 92): ‚...Vorstellungen über die technische und politische Entwicklung und damit um Annahmen handelte, die nicht aus der Statistik abgeleitet werden könnten’.
- Page 316: DStG (1967: 92): ‚...daß sich die öffentliche Statistik allzuweit in die gesamtwirtschaftliche Analyse und Prognose hineinbegibt’.
- Page 316: DStG (1967: 92): ‚Handwerkszeug...steht am Rande seiner Arbeit’.
- Page 316: DStG (1967: 92): ‚...Zahlengewinnung und ihrer Darstellung für allgemeine Zwecke’.
- Page 316: Bartels (1967a: 56): ‚...wirtschaftliche und soziale Tatbestände und Vorgänge objektiv und neutral registrieren’.
- Page 317: Fürst in DStG (1967: 98): ‚...sich aber hüten, in eigener Entscheidung Daten zu setzen, die ihrem Wesen nach politisch seien, m.a.W., er solle nicht fehlende politische Leitbilder und Ziele ohne politisches Mandat durch eigene Vorstellungen ersetzen’.
- Page 317: DStG (1967: 94): ‚Prognose müsse sein – dies sei heute eine in der Wirtschaft weitverbreitete Ansicht; ihre Art zu verbessern, sei die Aufgabe aller’.
- Page 317: Fürst in DStG (1967: 101): ‚...ein Wirtschaftsstatistiker zu einem erheblichen Teil auch Wirtschaftstheoretiker sein solle’.
- Page 317: (DStG 1967: 101): ‚...wie unsere schönen Zahlen vom Planungsamt vergewaltigt werden’.
- FN 340: ‚Deckung des Personalbedarfs für nicht-militärische Dienstleistungen und Arbeitskräftebedarfsdeckung im Verteidigungsfall’, BMA, IIa3, Notstandsplanung, Protokoll über die Ressortbesprechung vom 19.12.63 im BMA, in: BAK B149/6123.

- FN 342: ‚Ich möchte empfehlen, darauf bedacht zu sein, dass die Angelegenheit durch das Gesetz selbst geregelt wird‘. MR Dr. Joachim Wolf (BMWi) in a letter to MD Andres (BMA), 11 March 1963, in B149/6123.
- FN 344: ‚...beruhe auf dem Gedanken, daß die Arbeitsämter im Ernstfall eine Notdienstverpflichtung auszusprechen hätten‘. See Note by BMA, Ib3 (Galland), Betr. Statistik der beschäftigten Arbeitnehmer, 7 March 1961, in: BAK B149/12324.
- FN 346: ‚In Zeiten internationaler Spannungen und im Verteidigungsfall selbst muß gewährleistet sein, dass auch im nichtmilitärischen Bereich der Personalbedarf zur Erfüllung der lebens- und verteidigungswichtigen Aufgaben gedeckt werden kann...deshalb müssen bereits in Friedenszeiten entsprechende Unterlagen erstellt werden‘, in: Vorlage an den Abteilungsleiterauschuß für Verteidigungsfragen, BMA Ila3, 22 August 1963, in BAK B149/6123.
- FN 347: ‚...Heranziehungsbehörden für die Deckung des Personalbedarfs für nichtmilitärische Dienstleistungen‘, BMA, Ila3, Note, Zivile Notstandsplanung, 5 June 1964, in BAK B 149/6123.
- FN 350: ‚Die Abdeckung des Risikos eines unrichtigen Kriegsbildes sei eine jährliche Versicherungsprämie von 20 Mio. wert‘, MR Dr. Schröder (BMWi) in BMA, Ila3, Notstandsplanung, Protokoll über die Ressortbesprechung vom 19.12.63 im BMA, in: BAK B149/6123.
- FN 356: ‚...setzte sich der BMA dem Verdacht aus, durch eine Hintertür wieder die inzwischen abgeschaffte Beschäftigtenkartei bei den Arbeitsämtern einführen zu wollen‘. In BMA, Ila2, Sitzung des Ausschusses für Arbeit des Deutschen Bundestages am 11.3.64, in: BAK B149/6123.
- FN 358: ‚nirgendwo ein richtiger Ansatzpunkt sei‘. BMA, Ila2, Note on the Besprechung zwischen dem BMA und der BAVAV am 30.10.64, 4 November 1964, in: BAK B149/6123.
- FN 359: ‚...den Standesbeamten weitere statistische Aufgaben zuzuweisen‘. BMI, IB4 to BMA, Mitteilungen der Standesämter an die AÄ, 13 October 1964, in: BAK B149/6123.
- FN 361: ‚...die erforderlich sind, um den natürlichen Belegschaftsschwund durch Tod, Invalidisierung oder Pensionierung sowie den Abgang durch Arbeitsplatzwechsel (Fluktuation) ausgleichen zu können‘. ‚...um ein angestrebtes Ziel, z.B. Leistungsziel (Erfüllung zusätzlicher Aufgaben) oder Produktionsziel zu erreichen‘, in: BAVAV, IVb, Auszüge aus der Niederschrift über die Tagung der Referenten für Statistik bei den LAÄ, 19 and 20 December 1963, in: BAK B149/12324.
- FN 362: ‚...zu einem vorher genau eingewiesenen leitenden Mitarbeiter, der besonders guten Kontakt mit Betrieben hat...‘, Ebeling (BAVAV), Untersuchung über den Zusatz- und Ersatzbedarf in der deutschen Wirtschaft an Arbeitskräften, 7 January 1964, p.3, in: BAK B119/2271.
- FN 363: ‚...entspricht die zur Zeit praktizierte Arbeitsmarktbeobachtung in keiner Weise dieser Notwendigkeit‘, Beerman, Entwurf eines Schreibens an die Bundestagsfraktionen, 14 May 1965, in: Archiv der Sozialdemokratie DGB0550.
- FN 364: ‚Die informatorische Wirkung einer solchen Arbeitsmarktbeobachtung [...]‘. ‚...Industrie-, An- und Umsiedlungen, berufliche Förderprogramme, Hilfe für Zonenrandgebiete, Entballung, Ausländerwerbung [...] als auch für individuelle Hilfen in der Arbeitsberatung, Arbeitsvermittlung, Berufsberatung, Umschulung usw.‘. ‚Um das so erzielte statistisch-rechnerische Ergebnis auch empirisch abzusichern...‘, in: Vorschlag des Deutschen Gewerkschaftsbundes zur Aktivierung der Arbeitsmarktpolitik (Entwurf), DGB Social Policy Department (Hermann Beermann), 14 May 1965, in: Archiv der Sozialdemokratie DGB0550.
- FN 366: ‚...einen Ausbau und eine Verfeinerung der Arbeitsmarktstatistiken hinzuwirken‘. Markmann, Abteilung Wirtschaftspolitik to Beermann, betr.: Arbeitsmarktbeobachtung und Arbeitsmarktpolitik, 21 May 1965, in: Archiv der Sozialdemokratie DGB0550.
- FN 368: ‚...energische Maßnahmen in Richtung auf bessere Durchleuchtung [der Verhältnisse auf dem Arbeitsmarkt]‘, in: Markmann, Abteilung Wirtschaftspolitik to Beermann, betr.: Arbeitsmarktbeobachtung und Arbeitsmarktpolitik, 21 May 1965, in: Archiv der Sozialdemokratie DGB0550.
- FN 370: ‚...Werbeprospekte der Herstellerfirmen [zu] Angaben über personelle Auswirkungen beim Einsatz bestimmter Maschinen...‘, letter of DGB Bundesvorstand (Beermann) to Hauptvorstände und DGB

Landesbezirke, betr.: Beschaffung von Information für Zwecke der Arbeitsmarktbeobachtung, 15 February 1966, in: Archiv der Sozialdemokratie DGB0550.

- FN 373: ‚MR Dr. Scharlau wies darauf hin, dass Arbeitsmarktpolitik gerade in der derzeitigen Situation auch ohne Kenntnis genauer Zahlen betrieben werden könne‘, in: BMA, Ib2, Niederschrift über das Ergebnis der Besprechung mit der BAVAV on 28 January 1965, in: BAK B149/6123.
- FN 375: ‚Wenn man in naher Zukunft drei verschiedene Zahlen aus der Volkszählung, dem Mikrozensus und aus der G-Kartei habe und diese drei Zahlen voneinander abwichen, müsse man sich entscheiden, welche Zahl man als die richtige ansehen wolle‘. Galland in a note by BMA Ila3, Weiterführung der Beschäftigtenkartei der BAVAV, 25 July 1961, in: BAK B149/6123.
- FN 376: ‚Es hat sich bisher äußerst unangenehm bemerkbar gemacht, daß über die Zahl der beschäftigten Arbeitnehmer 2 [sic!] verschiedene Angaben veröffentlicht wurden...Die Einführung der G-Kartei für beschäftigte Arbeitnehmer sollte daher zum Anlaß genommen werden, diesen Missstand zu beseitigen‘. ‚...die Zahl der definitiv in der Kartei nicht oder aber zuviel enthaltenen beschäftigten Arbeitnehmer schätzungsweise einzusetzen, um insgesamt auf die gleiche Zahl zu kommen, wie sie vom StBA ausgewiesen wird‘, in: BMWi, IA7 (Dr. Raabe) to BMA, betr. Beschäftigtenstatistik der BAVAV nach der G-Kartei, 31 January 1964, in BAK B149/6123.
- FN 378: ‚...soll [...] mit den Ergebnissen der 1% Befragungen des Mikrozensus und den ‘durchlaufenden Reihen’ verglichen werden...‘. ‚Schon die praktisch als Anpassung an eine echte Zufallsauswahl anzusehende Überprüfung der G-Ergebnisse mit Hilfe der Mikrozensusergebnisse ist als ein Fortschritt gegenüber der ursprünglichen Konzeption zu werten‘, in: BMA, Ib2, Betr.: Niederschrift über das Ergebnis der Besprechung zum G-Ausschnitt der Arbeitnehmerkartei am 27.4.1964, pages 2 and 7, in: BAK B149/12324.
- FN 379: ‚...sondern nur noch Tendenzen und Entwicklungen aufgezeigt werden‘, in: BMA, Ib2, Niederschrift über das Ergebnis der Besprechung mit der BAVAV, 28 January 1965, in: BAK B149/6123.
- FN 380: ‚...seien sicherlich Fehlerquellen, die jedoch kein Außenstehender erfahre‘. BMA, Ila2, Note on the Besprechung am 28.1.65 im BMA über die bisherigen Ergebnisse der G-Kartei‘, 2 February 1965, BAK B149/6123.
- FN 381: ‚...G-Personen, die bei den Arbeitsämtern als beschäftigt gemeldet waren, ihr Beschäftigungsverhältnis beim Mikrozensus nicht angegeben haben...‘. Ergebnisprotokoll über die 9. Sitzung des Vorstandsausschuss für Rechts- und Verwaltungsfragen am 10. März 1965, in: BAK B149/6123.
- FN 383: ‚Wenn man davon ausgeht, daß z.B. in München etwa 25000 G-Karten in der Kartei stehen, wird – allerdings an diesen extremen Fall – deutlich, welche Schwierigkeiten einer solchen Prüfung entgegenstehen‘, in: StBA (VIII, Schwarz) to the BMA, betr.: Möglichkeiten eines Vergleichs der Unterlagen der G-Kartei und des Mikrozensus, 14 June 1965, in: BAK B128/4111.
- FN 388: ‚Vom Standpunkt des Statistikers aus läßt sich die Weiterführung der G-Kartei mit jährlichen Kosten von 4 Mio DM nicht rechtfertigen‘. ‚Fehlende Quantität und auch Qualität der Kartebearbeiter‘. ‚...werden für das BMA neue Überlegung beginnen, da in Zukunft vermutlich doch Arbeitsmarktzahlen in regionaler Gliederung benötigt werden‘, in: BMA, Ib2, G-Kartei, Niederschrift über die Besprechung am 5./6. April 1966 in Wiesbaden, 21 April 1966, in: BAK B149/6123.
- FN 389: ‚M.E. darf die Bundesanstalt gerade jetzt, wo allgemein die Forderung erhoben wird, die Arbeitsmarktbeobachtung auszubauen und zu verfeinern, wenn möglich sogar zu begründeten Voraussagen über das kurz- und mittelfristige Arbeitskräfteangebot und die Arbeitskräftenachfrage zu kommen, nicht darauf verzichten, durch eigene Feststellungen möglichst gesicherte Aussagen hierüber zu machen.‘ ‚zu einer nicht zu rechtfertigenden Schädigung des Ansehens ihrer Leistungsfähigkeit‘, BMA, II (Käfferbitz), Ihr Schreiben vom 21. April 1966, 4 August 1966, in: BAK B149/6123.
- FN 391: ‚... eine Zentrale Gesamtkartei mit Hilfe moderner elektronischer Datenverarbeitungsanlagen‘, in: BMA, Ila3, note, betr.: Rücksprache beim Herrn Abteilungsleiter am 5.10.1966, 16 October 1966, in: BAK B149/6123.
- FN 392: ‚...die künftige Beschäftigtenstatistik mit zu beeinflussen...‘, in: BAVAV, Besprechungsunterlagen für die Sitzung der gemeinsamen Ausschüsse ‘Technischer Fortschritt und Arbeitsmarkt’ am 3.10.67, p.23., in: BAK B149/22047.

- FN 393: ‚Ob die Aufgabe der Arbeitsmarktbeobachtung und – Hand in Hand mit ihr – die der Berufserkundung und –beobachtung jetzt richtig gesehen und erfolversprechend angepackt wird, kann entscheidend sein für die nachfolgenden Generationen...‘, in: Schmidt in a letter to Henschel, 30 June 1965, in: BAK B149/8600.
- FN 398: ‚...staatspolitische Notwendigkeiten [...] der Erkundung und Darstellung beruflicher Verhältnisse‘. ‚...den Gesamtkomplex der berufskundlichen Information im weitesten Sinne zuständig ist‘, in: Zusammenfassung der Vorgeschichte des Referats IIa6, in: BAK B149/8598.
- FN 402: ‚...autoritative oder vereinbarte Feststellungen über die Voraussetzungen, die erfüllt sein müssen, um die Ausübung einer oder mehrerer Arbeitsverrichtungen als Beruf werten zu können‘, BMA, IIa6 (Schmidt), Berufsklassifizierung, Berufssystematik, o.J., in: BAK B149/8598.
- FN 403: ‚...unkoordinierte Vielzahl privater und öffentlicher Stellen (...) mit sehr unterschiedlichen – meist interessebetonten – Zielsetzungen...‘, in: Zusammenfassung der Vorgeschichte des Referats IIa6, in: BAK B149/8598.
- FN 404: ‚Der Bearbeiter muß sich bei der Beschreibung stets streng an die ermittelten Tatsachen halten und darf keinerlei ‘Phantasie’ aufkommen lassen. Im Interesse der Anschaulichkeit soll die Schilderung ‘nüchtern’, aber nicht ‘trocken’ sein‘, in: Was sind Berufsbeschreibungen und welchen Zwecken dienen sie? Richtlinien für die zweckmäßige Anfertigung, no date, in: BAK B149/8598.
- FN 407: ‚Wandlungen im Tätigkeitsinhalt und das Aufkommen neuer Berufsbenennungen als Folge der technischen und organisatorischen Entwicklung der Arbeitsprozesse und der Arbeitsmarktlage...‘, in: StBA, VIII, protocol of the first meeting (23 and 24 June 1965) of the working group occupational classifications, 21 July 1965, p.3, in: BAK B149/8599.
- FN 412: ‚...besondere Einrichtung bei der Hauptstelle der Bundesanstalt‘, BAVAV, Pressemitteilung Ausschuß ‘Technischer Fortschritt und Arbeitsmarkt’ konstituiert, 7 October 1965, in: BAK B149/8600.
- FN 414: ‚...stehen ständig vor der Notwendigkeit, Ratschläge zu erteilen oder Maßnahmen zu veranlassen, die weit in die Zukunft zielen [...] ist [es] Aufgabe der Arbeitsmarktforschung systematisch und laufend die Entwicklungstendenzen der einzelnen Berufe in den verschiedenen Wirtschaftsbereichen [...] zu erkunden, die getroffenen Feststellungen an zentraler Stelle zu sammeln, auszuwerten und nutzbar zu machen‘. ‚...sie sollen [...] die Fachkräfte befähigen, die Entwicklung des Arbeitsmarktes in ihren örtlichen Betrieben unter Berücksichtigung der Erkenntnisse, die in anderen Bezirken gewonnen worden sind, kritisch zu beurteilen und sie sollen Fehlentscheidungen aus Unkenntnis von vorausschaubaren Änderungen in der Wirtschaftslage, in der Berufsstruktur und im Berufsinhalt verhindern‘. ‚Die Arbeitsmarktforschung soll die bisher betriebene Arbeitsmarktbeobachtung und -statistik ergänzen‘. ‚...den voraussichtlichen Entwicklungstrend aufzeigen und auf die Faktoren hinweisen, die ihn beeinflussen werden...‘, in: BMA, IIa6, Beratungsunterlagen für die Sitzung des Arbeitskreises ‘Strukturwandel der Wirtschaft’, 6 May 1965, p.2, in: BAK B149/8600.
- Page 359: (Sachverständigenrat 1966/1967: 95): ‚...Arbeitsvermittlung im interregionalen Rahmen mit Hilfe der modernen Datenverarbeitungstechnik‘.
- Page 361: STERN (1963: 23): ‚Nun heisst das nicht, daß die Arbeitslosigkeit schon morgen vor der Tür steht! Aber Vorsorge muß getroffen werden‘.
- FN 421: ‚Kein Markt ist so wenig transparent wie der Arbeitsmarkt‘, Alois Degen in an interview with ‘Die Welt’, 28 September 1967.
- Page 362: Karr (1968: 100): ‚...65% des deutschen Arbeitsmarktes [können] zur Zeit kurzfristig statistisch nicht erhellt werden. Es handelt sich um die Bereiche Land- und Forstwirtschaft, Teile des Produzierenden Gewerbes, Handel und Verkehr und Dienstleistungen‘.
- Page 364: Hüttner (1972: 97): ‚...die kleinste rechtliche Einheit, die Verträge schließt, bilanziert und ein vollständiges Rechnungswesen führt‘.
- FN 432: ‚Jede Methode sei vorzuziehen, die keine einschneidende Änderung des bisherigen Zustandes voraussetzt‘. ‚...sollten manuelle Tätigkeiten weitgehend vermieden werden.‘ (Entire quote) ‚Dr. Pappai weist mit Nachdruck darauf hin, daß dieses Verfahren mit der Unterstützung aller Fraktionen des Bundestages rechnen kann, weil ein Interesse besteht, jederzeit über alle Daten zu verfügen, um den

Rentenversicherten periodisch 'Kontoauszüge' schicken zu können', in: BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

Page 369: Winkler (1970: 151): '...obwohl man weiß, daß deren Inhalt in wenigen Jahren mit erheblichen Mühen in Handarbeit erfaßt werden muß'.

FN 442: 'Dies ist ein wesentlicher Beitrag zur Beschreibung und Analyse regionaler Strukturen...', in: BAVAV, IVb2, Gemeinsame Sitzung der Ausschüsse für Arbeitsmarkt und Berufsforschung sowie Statistik des Vorstands und der Verwaltungsrats, 12 January 1970, p. 5, in: BAK B119/4655.

FN 443: 'Da es ausgeschlossen ist, die Berufsangaben in verbaler Form mitteilen und zentral verschlüsseln zu lassen...'. '...einen angemessenen Kompromiß zwischen einer ausreichenden beruflichen Differenzierung und einem für den Arbeitgeber noch praktikablen Schlüsselverzeichnis...', in: BMA, Niederschrift der 1. Sitzung des Arbeitskreises Beschäftigtenstatistik am 8. Januar 1969, p.5, in: BAK B119/4655.

Page 373: Eberhard (1972: 285): 'Ein Nicht-Fachmann wird bei Benutzung der 'Klassifizierung der Berufe' immer wieder, oft entscheidende Fehler machen, ohne dass es ihm möglich wäre, sie selbst nach längerer Benutzung und Einübung zu vermeiden'.

Page 374: Eberhard (1972: 287): 'Die streng exakte Aufreihung nach dem Alphabet trennt Zusammengehörendes in verwirrender Weise'.

FN 452: 'Der Erfolg der Erhebung, die große Massen von Unterlagen auszuwerten hat, wird entscheidend von der rechtzeitigen Schaffung der maschinellen und personellen Voraussetzungen abhängen', in: StBA, IA, Bericht über die 18. Tagung des StBR am 12. und 13. Mai 1970, in: BAK B128/4097.

FN 454: 'Eine Reihe wichtiger politischer und persönlicher Entscheidungen...Ohne diese Daten ist eine zieladäquate Aufstellung von regionalen Entwicklungsplänen und ihr rationeller Vollzug kaum möglich', BMA, Ila1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 2/3, 19 May 1970, in: BAK B149/34553.

FN 455: 'Die Vielfalt der zu erfassenden Merkmale in den Teilregionen sinkt – wenn überhaupt – nicht in dem Maße, wie die Gesamtregion in Teilräumen aufgegliedert wird', in: BMA, Ila1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 2, 19 May 1970, in: BAK B149/34553.

FN 456: '...daß die Ergebnisse einer 10%-Stichprobe, die auf nachhaltig kontrollierten Berufsangaben basiert sind, in ihrer Treffgenauigkeit die Resultate einer Totalstatistik übertreffen werden', BMA, Ila1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 2, 19 May 1970, in: BAK B149/34553.

FN 458: 'Die Masse der Beschäftigten bleibt in den alten Funktionen, so daß echte Neueintragen nur bei Neuzugängen und im Zuge betrieblicher Umsetzungen erfolgen müßten', in: BMA, Ila1, (Rosenmöller), Abwägung der Gründe, die für eine Totalerfassung oder eine Stichprobe als Grundlage der Beschäftigtenstatistik sprechen, p. 4, 19 May 1970, in: BAK B149/34553.

FN 462: '...die für seine Forschungen notwendigen statistischen Grundlagenarbeiten als Daueraufgabe übernehmen', in: BAVAV, Niederschrift über die Tagung der Referenten für Statistik bei den LAÄ, 16 and 17 December 1969, BAK B119/5008.

FN 465: '...keinen Einfluß auf die Gestaltung der Fragebögen und des Auswertungsprogramms gehabt hätten.' 'Die Bedürfnisse der Arbeitsmarkt- und Berufsforschung würden nicht voll befriedigt', in: BMA, Ia3, Ergebnisprotokoll des Expertengesprächs mit dem StBA on 2 June 1969, p. 2, 25 June 1969, in: BAK B149/34553.

FN 466: '...das alle arbeitsmarkt-, berufs- und bildungsforschungsrelevanten Fragen zulässt', in: IAB, Ergebnisprotokoll einer Diskussion über zusätzliche Auswertungsmöglichkeiten der Volkszählung und der geplanten neuen Beschäftigtenstatistik, 2 July 1969, in: BAK B149/22046.

FN 468: '...liefert nicht Antworten auf spezielle Fragestellungen, sondern nur vorgegebene Tabellen, die dann erst wieder analysiert werden müssen', see note by BMA, Ia3 (H. Schmidt), Auswertung der erwerbstatistischen Daten der Volkszählung 1970, 1 August 1969, p.3, in: B149/34553.

- FN 470: ‚...hat sich bisher nicht sehr aufgeschlossen gegenüber den Wünschen der Wissenschaft gezeigt...‘, see note by BMA, Ia3 (H. Schmidt), Auswertung der erwerbstatistischen Daten der Volkszählung 1970, 1 August 1969, p.6, in: B149/34553.
- Page 384: Arendt (1972a: 10): ‚Die moderne Sozialpolitik kann sich nicht damit abfinden, nachträglich hier und da zu korrigieren, sondern sie bestimmt mit ihren Zielen und ihren Maßnahmen den gesellschaftlichen Prozeß und der Prozeß der Demokratisierung unmittelbar‘.
- Page 385: Arendt (1972a: 16): ‚...muß sich ...um äußerste Transparenz und Verständlichkeit bemühen...‘.
- Page 385: Arendt (1972b: 22): ‚Sozialpolitik muss für jeden verständlich werden‘.
- Page 385: Arendt (1972a: 16): ‚Moderne Organisationsmittel wie die elektronische Datenverarbeitung erlauben heute eine rasche und verständliche Information‘.
- Page 385: Arendt (1972a: 16): ‚Jeder Versicherte muß verstehen können, in welchem Zusammenhang die Leistungen der sozialen Sicherung mit seinen Beiträgen stehen. Die gesamte Sozialverwaltung wird mit Hilfe der EDV alle anfallenden Daten erheblich rascher erfassen und für die Planung auswerten können‘.
- Page 386: Arendt (1972a: 16): ‚Wer ihm [dem Staatsbürger, JM] keine Informationen gibt, hat auch nicht das Recht, ihm sein Verhalten als Mißbrauch vorzuwerfen‘.
- Page 386: Winkler (1970: 149): ‚...Durchsichtigkeit des kompliziertere werdenden Systems...‘.
- Page 386: Winkler (1970: 149): ‚...Bestreben immer abgewogenere, ‘gerechtere’ Gesetze zu erlassen‘.
- Page 386: Winkler (1970: 149): ‚...muß der Erkenntnis zum Durchbruch verholfen werden, daß zu einer wirkungsvollen sozialen Sicherung auch die individuelle Information gehört‘.
- Page 386: Winkler (1970: 149; emphasis in original): ‚wie so etwas erreicht werden kann und was getan werden muß, damit der Bürger möglichst schnell seine Situation im System der sozialen Sicherung verstehen lernt‘.
- FN 474: ‚Die Einrichtung neuer Statistiken oder die Veränderung bestehender Statistiken erfordert eine lange Zeit der Diskussion und der Vorbereitung‘ in: BAVAV, Besprechungsunterlagen für die Sitzung der gemeinsamen Ausschüsse ‘Technischer Fortschritt und Arbeitsmarkt’, 3 October 1967, p.23, in: BAK B149/22047.
- FN 475: ‘Das schwierigste und risikoreichste Projekt auf statistischem Gebiet’, Dr. Redlich (Head of sub-department IVb) during the annual staff meetings of Statistics Officers of the Länder Labour Offices, 16 and 17 December 1969, in: BAK B119/5008.
- FN 479: ‚...daß die anstehenden Probleme kurz und präzise behandelt werden können. Erwartet wird die Schilderung konkreter Tatbestände‘, in: BA, Ib4, to the LAÄ, betr. Erfassung der Betriebsdaten zur Errichtung einer zentralen Betriebsdatei, 25 October 1971, in: BAK B119/5008.
- FN 480: ‚Ein rationeller Kräfteansatz [...] dürfte nur durch organisatorische Zusammenfassung aller Datenerfassungsaufgaben gewährleistet sein‘, in: BA, IVb3 (Petersen), betr. Präsidenten-Besprechung am 27./28. Juli 1972, hier: Datenverbund Sozialversicherung – Bundesanstalt, p.7, in: BAK B119/5008.
- FN 482: ‚Die Erteilung ‘amtlicher’ Betriebsnummernbescheide muß der dafür fachlich zuständigen Stelle vorbehalten bleiben‘, in: BA, IVb3 (Petersen), betr. Präsidenten-Besprechung am 27./28. Juli 1972, hier: Datenverbund Sozialversicherung – Bundesanstalt, p.7, in: BAK B119/5008 (hand-written corrections on Petersen’s note).
- FN 483: ‚äußere Aufmachung ließ zu wünschen übrig‘, in: BA, Ib4, betr. Besprechung mit den LAA-Referenten für Statistik vom 23. Januar 1972 in der Hauptstelle, 15 February 1972, in: BAK B119/5008.
- FN 485: ‚ausreichende Zahl von Fernsprechan Schlüssen‘, in: BA, IVb3 (Petersen), betr. Präsidenten-Besprechung am 27./28. Juli 1972, hier: Datenverbund Sozialversicherung – Bundesanstalt, p.8, in: BAK B119/5008.
- FN 488: ‚...müßten [...] bei jedem einzelnen Arbeitnehmer erst erfragt und dann à jour gehalten werden‘, in: StBA, IA, Bericht über die Tagung des StBR am 12. und 13. Mai 1971, p. 25, in: BAK B128/4097.

- FN 489: ‚Seiner Ansicht nach tragen die vorgesehenen Unterlagen Züge eines Vorläufers für einen Arbeitspaß‘.
‚Diese Verwaltungsvorgänge waren schon immer erforderlich...Die hierdurch entstehenden Arbeiten haben mit der Statistik nichts zu tun‘, in: StBA, IA, Bericht über die Tagung des StBR am 12. und 13. Mai 1971, p. 26, in: BAK B128/4097.
- FN 490: ‚Da hierbei finanzielle Ansprüche geregelt werden, liegt es im Interesse des Versicherten, der Rentenversicherung und des Staates, daß das Verfahren *reibungslos* abläuft und die Angaben *vollständig* sind‘, in: StBA, IA, Bericht über die Tagung des StBR am 12. und 13. Mai 1971, p. 26, in: BAK B128/4097. (Emphasis mine).

Archival Collections

The list that follows does not provide anything like a complete list of primary sources used in this thesis but is really only a guide to the footnotes.

Federal Archive Koblenz (BAK)

B119 (BAVAV/BA)

- B119/2880-2 Entwicklung einer Arbeitsmarktkonzeption - wissenschaftliche Begleituntersuchungen.
- B119/3138 Anweisungen für die Durchführung der Arbeitsvermittlung und der Berufsberatung bei den Arbeitsämtern 1954-1970
- B119/3719 Konzept für Tabellenwerk 'Statistik zum Arbeitsmarkt der Bundesrepublik Deutschland', Bd. 1 1971-74.
- B119/3729-32 Zusammenarbeit mit dem IAB – Forschungsprojekte.
- B119/4655-7 Zusammenarbeit mit der Selbstverwaltung hier: Ref. Beschäftigtenstatistik.
- B119/5008 Aufbau und Führung einer Beschäftigtenstatistik - Tagungen und Dienstbesprechungen 1969-1973.
- B119/5009 Aufbau und Führung einer Beschäftigtenstatistik - Tagungen und Dienstbesprechungen 1973-1986.
- B119/5227 Einschränkung der Aufgabendurchführung – Maßnahmen zur Verringerung der Arbeitsbelastung, 1971-73.
- B119/5223 Koordinierungskreis Beschäftigtenstatistik – Zusammenarbeit mit dem BMA und dem Statistischen Bundesamt, Bd. 1: 74-75.
- B119/5584 Dienstbesprechung mit den Referenten für Statistik der LAÄ 1971-1980.

B128 (StBA)

- B128/3310 Arbeitskreis für Fragen der mathematischen Methodik; Berichte, Untersuchungen.
- B128/3756 Statistischer Beirat.
- B128/3996 Besprechungen der Leiter der Statistischen Ämter des Bundes und der Länder (Amtleiterkonferenzen).- Protokolle.
- B128/4077 Beschäftigtenstatistik, Bevölkerungsvorausberechnungen.Schriftwechsel, Vermerke.
- B128/4096-7 Statistischer Beirat, Amtsleiter- und Abteilungsleiterbesprechungen.- Protokolle, Vermerke, Schriftwechsel.
- B128/4107 Erwerbstätigkeit.- Terminologie der Gliederung der Beteiligung am Erwerbsleben.
- B128/4111 Mikrozensus.- Zusammenarbeit mit der Bundesanstalt für Arbeit.
- B128/4127 Statistischer Beirat.- Tagungen.

B149 (BMA)

- B149/862 Arbeitnehmerkartei der Bundesanstalt. Auskunftserteilung 1950- 1961.
- B149/863 Weiterführung der Arbeitnehmerkartei der Bundesanstalt 1953-1961.
- B149/5723 Studie über die zukünftige Entwicklung auf dem Arbeitsmarkt - Battelle-Institut, Bd. 1-2, 1966-67.
- B149/8085 OEEC-Auschuß für Arbeitskräfte – Normen für die Organisation der Arbeitsverwaltung.

- B149/8598 Entstehung des Referats IIa6 'Berufsklassifizierung'.
- B149/8065 OECD-Ausschuß für Arbeitskräfte. - Tätigkeitsprogramm für 1964 - u.a. Verfahren der Vorausberechnung der Beschäftigung, 1963-65.
- B149/8067 OECD-Ausschuß für Arbeitskräfte. - Operationelles Arbeitsprogramm für das Jahr 1963 1963-1963.
- B149/8607 ISCO Revision.
- B149/8092 Zuständigkeitsabgrenzung für Fragen der OECD im BMA.
- B149/8455 Arbeitskreis Automation, Bd. 1A und B 2-4 1967-1969.
- B149/8478 Studie über die zukünftige Entwicklung auf dem Arbeitsmarkt – Exposé des Battelle-Instituts.
- B149/8508 Schätzungen zur voraussichtlichen Entwicklung der Arbeitslosigkeit, Bd. 1-2, 1968-1972.
- B149/8530 Arbeitsmarktbeobachtung, 1967-1969.
- B149/8598-8600 Entstehung des Referats IIa6.
- B149/12324 Weiterführung der Beschäftigtenkartei der Arbeitsverwaltung (G-Kartei).
- B149/22046-7 Bundesministerium für Arbeit und Sozialordnung – Arbeitsmarktforschung – Zusammenarbeit mit dem IAB, Erlangen. 1-2.
- B149/22082 Arbeitsgruppe der EWG für Fragen der Arbeitsmarktentwicklung und des Arbeitskräfteausgleichs zwischen den Mitgliedsstaaten, Bd 25-27, 1967-68.
- B149/34553 Statistik der beschäftigten Arbeitnehmer (Beschäftigtenstatistik).- Inhaltliche Ausgestaltung und Koordinierung der Zusammenarbeit mit den an der Erstellung beteiligten Behörden.

Archiv der Sozialdemokratie Bonn (AdS)

DGB0550 Arbeitsmarktpolitik

OECD Archive Paris

For the period 1949-54 and 1962-1965:

Reports by Manpower Committee under MO(61)1

Council Minutes such as C-M(51)3

Council Recommendations such as C(58)197

*BA Repository on the History of Labour Administration in Germany Mannheim
(SEAD-BA)*

SEAD-BA 6.7.1/11. (Beschäftigtenkartei)

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