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Ageing in Germany: content, quality and accessibility of relevant data sources: results of the Data Mapping Project of the Joint Programming Initiative "More Years, Better Lives"

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Ageing in Germany:
Content, Quality and Accessibility of Relevant
Data Sources

Results of the Data Mapping Project of the Joint
Programming Initiative "More Years, Better Lives"

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discussion papers

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1 INTRODUCTION

This report outlines the German results of the Data Mapping Project of the Joint Programming Initiative “More Years, Better Lives - The Potential and Challenges of Demographic Change” (JPI MYBL – <http://www.jpi-dataproject.eu>).

Joint Programming as a European Union research policy activity is member-states driven and basically aims at fostering collaboration and coordination in research and development in Europe and at putting the European Research Area (ERA) – an agenda to strengthen European scientific capacities by transnational co-operation – into practice. The Joint Programming Initiatives (JPI) are focused on joint research programs that address major European challenges such as climate change, ensuring energy and food supply or healthy ageing of citizens (European Research Area, 2013). The JPI “More Years, better Lives – The Potential and Challenges of Demographic Change” was launched at the beginning of this decade. It seeks to enhance coordination and collaboration between European and national research programs related to demographic change. It aims to identify future research needs and topics to provide solutions for the upcoming demographic challenges in Europe (JPI MYBL, 2013).

As a first research activity, the Fast Track Project “Data Mapping” was started in March 2013. The aim of this project was to create a common basis for JPI MYBL’s upcoming Strategic Research Agenda (SRA) by describing and evaluating the available data infrastructure on ageing in Europe in ten interrelated fields of interest: (1) health, (2) social systems and welfare, (3) work and productivity, (4) education and learning, (5) housing, urban development and mobility, (6) attitudes towards old age, (7) social, civic and cultural engagement, (8) uses of technology, (9) well-being and (10) intergenerational relationships.

The project “Data Mapping” comprises the most important data sources on ageing at the national as well as at the European comparative level, which provide information on the living situation/conditions of people aged 50 and older. For each field of interest, the available data infrastructures were evaluated in regard to relevance, availability, quality and more. It was examined whether there are major gaps in order to improve future data assessments. The Data Mapping Project provides both scientists and policy-makers with a comprehensive overview of where data for cross-disciplinary approaches and evidence-based decision-making with regard to ageing is available. Information gathered by the project was used to support the development of the JPI MYBL’s Strategic Research Agenda.

The German Centre of Gerontology was responsible for describing the national data infrastructure on the living conditions of people aged 50 and over in Germany. The authors of this report realised the project. The Federal Ministry of Education and Research (BMBF) financed the German project part and assigned the Max

Planck Institute for Demographic Research with the European coordination of the Data Mapping Project.

The selection of data sets described in the following was driven by the fields of interest identified by the JPI MYBL's working groups and the scientific advisory board. The authors acknowledge that the German data infrastructure is more diverse than depicted in the extract given in this report. To create a feasible report on data sources on ageing at the European and nation levels, the project partners agreed to limit the selection to about five data sets at the most for each field of interest. Furthermore, the data sources had to fulfill the following requirements in order to be listed: (1) to be current and of high quality, (2) to provide quantitative data with large sample sizes, and (3) if possible, to be longitudinal as well as policy-relevant. Based on these criteria and given the limitations in space and time only the most relevant data sources of each topic were included.

Chapter 2 contains the National Report, which evaluates the current data situation and its gaps with regard to the specific demographic challenges in Germany. The National Report was written based on the data infrastructure described in Chapter 3.

In Chapter 3, selected German data sets on demographic change are introduced. The provided information is an extract from the Data Mapping Project. More detailed information can be found for each German data set as well as for selected data sets of all participating states on <http://www.jpi-dataproject.eu>. All given information are as of July 2013.

2 NATIONAL REPORT – GERMANY

2.1 Demographic context

The population of Germany is currently 81.8 million (2011), rising slightly by about 1.5 million over the last two decades as a result of increasing life expectancy and modest inward migration. The trend differs between West and East Germany with the West experiencing a growth from 64.5 million (1991) to 69 million (2011) and the East absorbing a loss of population from 15.8 million (1991) to 12.8 million (2011). This is mainly due to internal migration and different fertility rates. At the same time East German mortality patterns assimilated with West Germany.

3.5 million people live in the capital Berlin. Other centers are the Ruhr/Rhein region, Hamburg, Munich, Frankfurt, Stuttgart and Dresden/Leipzig, most of them located in the western states of Germany. Several regions have a low population density that – together with poor economic development – creates particular challenges for social policy. The German population as a whole is one of the oldest in the world and has aged more rapidly than the European average during the recent decades.

Fertility rates fell rapidly during the late 1960s and the 1970s. This development was preceded by the German baby boom, which appeared later than in most other countries after World War II. It was much more significant in West than in East Germany in terms of numbers of births – also because of refugee movements from East to West. Birth figures in East Germany recovered during the late 1970s due to efforts to increase the compatibility of family and work especially for women while the decrease continued during this period in West Germany. There was a sharp fall in fertility rates in East Germany after unification in 1990 but rates converged in the last decades at the low West German level of about 1.4 children per woman which is far below replacement level.

In contrast, life expectancy has been constantly rising with diminishing differences between East and West and severe disparities between social classes. Life expectancy at 50/65 is 29.7/17.5 years for men and 33.4/20.1 years for women (2011). It has increased by 3.9/3.2 years for men and 3.0/2.7 years for women in the last 20 years. Mortality from most of the major health conditions of old age are comparable with the Western European average.

The percentage of the population aged 50 and older is 41.2 per cent in 2011 (1991: 34.4) and is expected to reach 50 per cent around the year 2030. Due to this, efforts have been made to increase both the statutory retirement age on the one hand and the real age of retirement as well as the labour participation of people aged 50 and older on the other hand. At the moment the statutory retirement age for both sexes is 65 in Germany and will increase to 67 in the birth cohort 1964, which will retire at this age in 2031.

Germany basically has a pay-as-you-go pension system as the first and main pillar of old age security, which is based on previous contributions or analogous

achievements like child-raising. It includes a means-tested basic component, including the acknowledgment of achievements outside the labour market, but is mainly income-related. The net replacement rate of the pension system was around 64 per cent in 2008, which is quite a high standard. But significant declines in replacement rates are expected in the future due to adjustments in the calculation formula that now links the development of the pension-point value to changes in ratio of pensioners to contributors. As a result, its adjustment is expected to be 18 per cent lower than the increase of earnings.

The overall system also features a second pillar of occupational pensions and a third pillar of private provision for old age based on private investments subsidised by the state. This part was extended as part of the recent reforms after the turn of the millennium. Participation in these private pension schemes is moderate and highly selective. The third pillar remains relatively small in Germany despite political attempts to strengthen it. Besides, there is also a distinct system for civil servants (Beamte) that is quite generous.

The number of people in need of care is 2.5 million (2011), with women (65 per cent) and the elderly being in a majority: people of age 60 (65/70/80/85) and older make up about 87 (83/79/56/36) per cent of people in need of care. Only a minority of 13 per cent of all people in need of care is younger than 60 and about two thirds are under 85 years of age.

In Germany, families make a major contribution to caring for dependent people. Out of these 2.5 million dependent people, 1.2 million live at home supported exclusively by partners, families and friends. Further, 0.6 million live at home and receive help from partners, families and friends as well as from formal services. Besides that about 0.7 million people receive help and care in institutions. After the age of 80 it is only a minority of people (32 per cent) that lives in residential institutions, but the number rises to 58 per cent at the age of 90 and older.

The health of older people is a big issue in Germany also due to the cost problems related to it. Nevertheless, it is documented that each cohort of older people has better health than its predecessors. In 2008, 21 per cent of older people aged 70 to 85 report no or just one major disorder (1996: 18 per cent). As a consequence, it remains unclear whether or to what extent demographic processes will lead to an expansion or compression of morbidity in later life with the corresponding cost effects.

The good health situation is a contrast to the increase of poverty risks in later life due to vagrant employment histories and structural changes in social security systems in Germany. There is no doubt that they will mainly concern the next generations of retirees but also have an effect on the subsequent birth cohorts.

2.2 Demographic change and policy concerns

The German Government has recognised the implications of demographic change during the last decade. The central plank of Government policy is to encourage people to stay longer in paid employment, in order to reduce the costs of pensions and welfare and to increase the economic contribution of older people. Measures include the postponement of the standard retirement age, the introduction of a sustainability factor into the public pension scheme that reduces individual pension according to relative cohort size, the implementation of a care insurance system, efforts to improve images of ageing in society and to establish new age norms like active and productive ageing as guidelines for individual planning for later life.

There is growing concern about intergenerational justice that as an effect may lead to reluctance against the challenges of intragenerational balance of risks and resources, hence, selectively creating new risks in the course of ageing. This may threaten the legitimacy of the welfare system.

In the Demographic Strategy of the Federal Government, published in 2012 under the headline "Every age counts" the following aims were highlighted:

- Strengthening of families as communities
- Working with motivation and in good health, doing qualified work
- Ensuring autonomous life in old age
- Fostering quality of life in rural areas and integrative urban policy
- Securing the preconditions for sustainable growth and welfare
- Sustaining the state's ability to act

2.3 Data Sources

2.3.1 General issues

Data is collected in Germany by various agencies and institutions, which are (mostly) state funded but independent of the government. The German Institute for Economic Research (DIW Berlin), for example, conducts the German Socio-Economic Panel Study (SOEP), the Robert Koch Institute (RKI Berlin) conducts the German Health Interview and Examination Survey for Adults (DEGS) and the Telephone Health Survey – German Health Update (GEDA). The German Centre of Gerontology (DZA Berlin) conducts the German Ageing Survey (DEAS) and the upcoming wave of the German Survey on Volunteering (FWS). The Institute for Employment Research (IAB Nuremberg) is responsible for the Labour Market and Social Security Survey (PASS) and the IAB Establishment Panel. One of the largest educational studies – the National Education Panel Study – is conducted by a network of 200 scientists at several institutes.

There is a variety of data sets that are provided by the official statistics. For example, the microcensus, which is conducted every year with a one-per-cent-

sample of the household population (about 830,000 respondents), brings population, labour market and the living situation of households into focus. Furthermore official statistics publish monothematic data sets on income and expenditures (EVS), the usages of Information and Communications Technology (ICT; IKT), time use (ZVE) and other single topics in fields like population, education, health and social issues. Institutions like the German Pension Insurance Fund provide data on different issues of the social system and welfare in Germany, such as the Biographical Data of Selected Social Insurance Agencies in Germany (BASID 2007) and the Sample of Insured Persons and Their Insurance Accounts (VKST). This data is process-produced, contains very large samples and allows differentiated analyses for a variety of social groups.

The policy themes of the JPI Strategic Agenda are covered by different surveys. There are only a few data sources which cover more than one topic comprehensively.

Within Germany's strict data protection legislation, the majority of data sources are available for a non-profit scientific use. Data access is often granted by research data centers. These research data centers facilitate simple and affordable access to wide-ranging data resources based on uniform and reliable standards. They respond to the individual needs of data users and data producers alike (RatSWD, 2010).

The following material summarises the major German data sources for the ten policy themes identified by the JPI "More Years: Better Lives". More detailed information on these is available online in the JPI data source database at <http://www.jpi-dataproject.eu>.

2.3.2 Health

There are multiple data sources on health in Germany, which gather data on different health and health-related aspects. The health status and differences in health status between cohorts can be described and analysed with the available data sources.

The German Health Interview and Examination Survey for Adults (DEGS), the Telephone Health Survey - German Health Update (GEDA), and the German Ageing Survey (DEAS) are the major population representative surveys on health in Germany. The DEGS is a longitudinal survey examining health over the life course (population 18+), including health questionnaires and examination providing a detailed picture of health and health changes in adulthood. The GEDA is a regular cross-sectional survey, which includes a regular set of questions on health and changing modules on up-to-date health topics. The DEAS is a multidisciplinary longitudinal survey including in-depth information on related topics such as work, social relations, and housing etc. Another good data source for health in Germany is the Study of Health in Pomerania (SHIP), although it is only representative for one region. The SHIP study provides extensive data on the health and living

situation of the participants including a wide range of biomarkers and different psycho-social resources in a longitudinal design.

The strengths of accessible health data in Germany are that a variety of health aspects and related topics are covered (e. g. subjective health, physical health, health behaviour, use of health care system, functioning, well-being), the surveys have large sample sizes, and the assessment modes vary. In sum, reliable and valid health information for the household population is available for in-depth analysis.

But there are several weaknesses that have to be addressed. Data is missing on very old age (85 years and older), on people in need for help and care, on people living in residential institutions and on non-German speaking people. The only representative data on people in need for help and care in households and residential homes has been collected in the cross-sectional MuG studies (Possibilities and Limits of an Independent Living and Health), but data is not available.

Although longitudinal health data is available, there is still more needed to understand short- and long-term health changes. In general, only a few studies provide objective health data and biomarkers, therefore biological processes of ageing cannot be analysed using the mentioned population representative data sets. Additionally, new and upcoming topics such as technological innovations and e-health have not been sufficiently covered yet.

2.3.3 Social systems and welfare

There is a variety of data sets that provide data on different issues of the social system and welfare in Germany. On the one hand there is data by the official statistics, such as the Microcensus and the Sample Survey of Income and Expenditure providing very large samples. The Microcensus contains a much smaller bias by non-response than other surveys as taking part in this census is compulsory by law. The German Pension Insurance Fund provides very detailed data on employment and old-age security.

The Biographical Data of Selected Social Insurance Agencies in Germany (BASID 2007) and the Sample of Insured Persons and their Insurance Accounts (VKST) are longitudinal data that have a high potential for analyses of employment biographies and pension claims in old age. This data is process-produced, contains very large samples and allows differentiated analyses for a variety of social groups. They enable scientific analyses in the fields of pensions, demography and employment biographies.

Longitudinal data on the life course, employment biographies, old-age security and living standard are also provided by longitudinal surveys such as the Socio-Economic Panel (SOEP) and the German Ageing Survey (DEAS). These surveys offer a greater variety of context variables than the official statistics. They contain information on health, households, family structures, intergenerational relationships and on attitudes, which is missing in the process-produced data mentioned above.

A series of valuable cross-sectional data sets in Germany is available about the issue of long-term care – the MUG-studies (Possibilities and Limits of an Independent Living and Health) record the living situation of people in need for care that are cared for in institutions or at home. Unfortunately, they are not available as scientific use files.

The field of social systems and welfare is connected to many other issues, like work and productivity, education and learning or health and care issues. There are many reliable and valid data sources in Germany in this and the corresponding fields. All major topics of social systems and welfare are covered. This includes life-course changes and institutional fit, old age security and care provision, employment and economic and distributive performance as well as gender and other basic issues of social inequality in the heading of governance, sustainable welfare, economic and social productivity, quality of life and well-being as well as information and communication. Most major data sets also provide longitudinal data in these topics. Therefore in-depth analyses are possible. However, certain relevant sub-populations that are difficult to include into a survey, such as very old people, people not living in private households, people living at the margins of society, have not been covered so far. There is a need for more empirical knowledge on the social situation of older people living in precarious economic situations as the risk of poverty in old age is increasing. At the moment this social group is underrepresented in surveys thus efforts must be made to include a larger sample of them into surveys. In addition, data is insufficient for older people on the top of the income distribution as they are also underrepresented in surveys. It is essential to gain more knowledge about them in order to understand the mechanisms of societal change and social inequality.

2.3.4 Work and productivity

There are multiple data sources on work and productivity in Germany, many of which are longitudinal surveys. They provide detailed information on different aspects of the topic.

On the one hand, there are surveys which are based on the individual level. The German Socio-Economic Panel Study (SOEP) as well as the German Ageing Survey (DEAS) – although the latter does not focus on retrospective data – allow for a detailed analysis of employment histories as well as a linkage to other topics such as health, housing or transition to retirement. The longitudinal survey Labour Market and Social Security (PASS) enables researchers to analyse the non-intended side-effects of labour market reforms as well as work and (un)employment histories and pathways into and out of welfare dependency. All in all, these data sources provide information on the question of how work is distributed across the life course. The cross-sectional study Employment after Retirement, however, is designed to identify factors which have an impact on the willingness to continue to work beyond retirement age as well as the desired working conditions for this continuation.

On the other hand, there is the IAB Establishment Panel, which focuses on the establishment level. It is the central basis for the analysis of labour demand in Germany. It can answer several questions on how far ageing populations are changing the behaviour of employers since it provides information on the amount of older employees and the establishments' individual personnel measures for older workers in establishments of all sectors and sizes.

All in all, there are many reliable, valid and longitudinal data sources in Germany in the field of work and productivity, which allow for in-depth analyses. Moreover, all major topics of work and productivity, such as the distribution of work across the life-course and work beyond retirement, work and health, the organisation of work and transitions to retirement, are covered.

However, there are also some weaknesses. Each data set focuses on some specific aspects, therefore the possibilities for analyses of the complex interplay of several aspects might be limited. Moreover, there is a lack of data providing information on the exact work content. This, however, is a useful indicator of integration and task adequacy. Furthermore, most data sets are not suited to deliver detailed and exact information on the transitions to retirement. In general, there is little data available on very old people, people not living in private households and people living at the margins of society.

2.3.5 Education and learning

There are two important data sets on education in adult age in Germany – the Adult Education Survey (AES) and the National Education Panel Study (NEPS). The AES records very detailed information on different educational activities in adult age. The data set is appropriate for trend analyses as it is a repeated cross-sectional survey. It is also suitable for comparing analyses within the EU-member states. The NEPS has a cohort-sequential design and is suitable for elaborated longitudinal analyses. It contains items on several dimensions of education – development of competencies in life course, education in life course specific learning environments, social inequality and educational decisions, educational processes of people with a migration background and returns of education. Both surveys, AES and NEPS, are limited to age groups up to 65 years, lifelong learning of people beyond employment age is not in the focus of this data. The ICT-Survey conducted by the official statistics records data on the dissemination of information and communication technologies (ICT) and on the use of the internet in private households. Among others it provides information on the usage of ICT for educational activities and on attending computer training courses.

The data situation in regard to education and learning is mixed. The available data covers a broad spectrum of topics but is mostly limited to persons aged 65 years and younger. Lifelong learning trajectories and education participation of older persons, in particular of people in their retirement, is not covered. There is one study – Competencies in Later Life (CILL) by the German Institute of Adult

Education – that will fill this gap providing data for people between 66 and 80 years. The data will be published in 2014.

2.3.6 Housing, environment and mobility

The German Ageing Survey (DEAS) and the German Socio-Economic Panel Study (SOEP) include information on housing and attitudes to the home and neighbourhood, but neither survey includes questions on spatial mobility and urban development. They allow, however, linkage of the aggregated microdata with official statistics on housing, regional development, population etc. on at least the NUTS3 level. Further, changes in housing, attitudes towards the home and neighbourhood can be linked to health, well-being and other life domains in the DEAS and SOEP as both surveys focus on a variety of life domains and have a longitudinal design.

There is one longitudinal data set addressing mobility (Mobility Panel Germany (MOP)), the MOP is a regular population-representative survey which assesses how people travel, for what reason and what transportation they are using. However, the MOP includes very limited information on health and living situations and does not have a specific focus on people aged 50 years and older. Despite having the potential of describing the mobility of older people, questions with regard to what community environments foster well-being and mobility cannot be analysed.

In general, data on housing needs and mobility of people in need for help, care or living in residential institutions is rarely available. Although the MUG (Possibilities and Limits of an Independent Living and Health) studies address this population and its needs and expectations, data is not available for scientific use.

Data on housing, environment and mobility is limited. Although housing is covered as a topic among interdisciplinary surveys, they do not include data on urban development and mobility. But analyses of urban development and housing needs and expectations are possible if the microdata is linked to official statistics on housing, regional development, population etc. Data on mobility in later life is particularly limited and in-depth analyses are not possible with the available data sources. Future trends in housing such as alternative forms of housing, technological innovations, or support systems are not yet covered sufficiently. The available data touches the identified questions within the domain of housing, environment and mobility but does not allow for in-depth analyses.

2.3.7 Attitudes to old age

The German Ageing Survey (DEAS) is the major source for describing and analysing attitudes towards old age and ageing. The DEAS also provides information about experiences of ageism in different life domains. Due to the cohort-sequential design and interdisciplinary approach, the DEAS allows depicting social and individual change in attitudes towards ageing. Moreover, it is possible to analyse

effects of life transitions (e. g. retirement, health events) on images of ageing and factors that determine different attitudes towards ageing. However, the questions focus on the individual images of ageing. Societal views of ageing are assessed broadly without focusing on attitudes towards retirement or working longer etc.

In sum, although the DEAS provides reliable and valid data, more data on attitudes towards old age and ageing is needed as it is the only data source in Germany so far. It does not represent very old people, people in need of help and care and people living in residential institutions. Although the DEAS includes questions on employment and retirement, it is not possible to answer questions concerning attitudes to retirement and working longer. The identified questions within the topic of attitudes towards old age can be examined within Germany, but more in-depth data on attitudes towards old age is needed.

2.3.8 Social, civic and cultural engagement

Volunteering has been an issue of growing interest for empirical research in the recent years. Meanwhile there are several data sets that record data on this issue. The most important single-topic data set on volunteering is the German Survey on Volunteering (FWS). The FWS reports several aspects of volunteering in detail, such as activities and motives or expectations of volunteers, and consists of a large sample. It is a cross-sectional survey and the fourth wave will be run in 2014. The German Socio-Economic Panel (SOEP) provides only a few items on volunteering, but these can be analysed longitudinally. The SOEP includes additional migrant samples, so up to now longitudinal analyses on volunteering of the migrant population in Germany can only be conducted with SOEP data.

Volunteering is also included in the DEAS, a longitudinal survey with respondents aged 40 and above, focusing on voluntary activities in clubs and organisations. A special kind of data is provided by the Time Budget Survey: In this data set volunteering is recorded in the personal interview, but the detailed expenditures of time for different kinds of volunteering can also be analysed with time use data collected in diaries.

The main one-topic survey with the focus on social engagement is the FWS. It provides valuable information on the voluntary activity of different social groups and data is easily available for the scientific community. With the revision of the survey instrument in wave 2014, more context variables will be included, such as health and marital status. At the moment the main problem for analyses of volunteering is the inconsistencies in the terminology. That is why different surveys report different results on this issue due to divergent definitions and question wording.

2.3.9 Uses of technology

Various data sets provide information on the usage of new technologies by older people, but there are few which are very detailed: The ICT-Survey on Information and Communications Technology by the official statistics records data on the

dissemination of information and communication technologies and on the use of the internet in private households. This survey provides a large sample and it is conducted yearly, but there is only little context information for empirical research. The Adult Education Survey (AES) records data on computer usage as part of vocational and non-vocational continuing education.

In sum, data on uses of technology in Germany is limited. Although the existing data sources provide reliable and valid data, their potential is restricted. Now that the baby-boomers are growing older, the relationship between old age and new media is changing. Computer usage of the elderly is rising, so knowledge on their specific needs and preferences in this field will become even more important in future. There is great potential of ICT in providing solutions for challenges in health care, autonomous living in old age, networking and others. This requires more detailed empirical knowledge on ICT in old age and data that is assigned more weight in such surveys.

2.3.10 Well-being

The German Ageing Survey (DEAS) and the German Socio-Economic Panel (SOEP) are good data sources for analysing well-being. The DEAS assesses different facets of well-being and includes information on a variety of life domains. Therefore, the DEAS allows detailed analyses of what is associated with differences in well-being within age groups and over time (trend analysis). The SOEP is an important data set on well-being as life satisfaction has been assessed annually for over 25 years. Additionally, the SOEP has included more questions on well-being in the recent years.

In general, well-being is assessed at least with one very basic question in most German data sets. However, for certain sub-populations, which are unlikely to be included or are not assessed at all (e. g. very old people, people living in residential homes, non-German speaking people), only little data is available on well-being.

The German data allows examining how well-being can be promoted in old age. As well-being is included in most data sets, it is possible to relate aspects such as social systems, work and employment, housing and environment, social relations, and health to individual differences in well-being. For sub-populations, especially at risk for decreasing well-being (e. g. people in need for care, people living in institutions), the available data provides less information.

2.3.11 Intergenerational relationships

With the German Ageing Survey (DEAS), intergenerational relationships can be analysed in the context of psychological, health, economic and sociological aspects. Due to the composition of the sample, the focus of intergenerational relationships is placed on intergenerational relationships in very old age including frequency of contacts, spatial distance, emotional closeness, financial transfers or the grandparent-role. The German Socio-Economic Panel (SOEP) also allows for the

analysis of contextual factors and provides information on household and family composition as well as financial transfers. Family networks outside the own household (spatial distance, self-evaluation of the relationship) are assessed on an irregular basis only. The German Family Panel (PAIRFAM) depicts intergenerational relationships in a dyadic perspective and pays particular attention to their multifaceted portrayal. Biological parent-child relationships, adoptive constellations, stepparents- and parents-in-law relationships and grandchild-grandparent relationships are covered. However, due to the composition of the sample, the data set is not yet suited for the analysis of intergenerational relationships in very old age.

In sum, the data quality with regard to intergenerational relationships is high and there are longitudinal data sources which allow for in depth-analyses. All major topics of intergenerational relationships, such as mutual support relationships, emotional closeness and frequency of contacts are covered. However, there is not much data providing information on stepparents- and parents-in-law relationships as well as dyadic information on relationships. Furthermore, it is difficult to analyse changes in intergenerational relationships over time in detail. Moreover, the data sources on intergenerational relationships are not suited to analyse the intergenerational relationships of sub-populations that are difficult to include in survey research such as very old people, people in need for help and care or people who no longer live in private households.

2.4 Data and the policy agenda: Gaps and challenges

There are multiple data sources in Germany that cover various aspects of later life and can describe demographic change and its effects. Besides interdisciplinary surveys which cover a range of topics, there are several specific surveys focusing on in-depth information on one topic. During the last decade significant progress in starting elaborated surveys with high financial expenses (such as NEPS, DEAS, DEGS) was made in Germany and many data sets of the official statistics are accessible to scientific research today. Although many data sources are available, certain aspects (e. g. alternative forms of housing, long-term care) and sub-populations (e. g. very old people, people with low socio-economic status) are not yet captured. There are some gaps that need to be addressed to enable researchers and policy makers to evaluate the challenges of demographic change.

This includes:

Most surveys do not include persons that are very old and/or in need for help and care. These sub-populations require specific sampling and data collections. The danger of excluding very old and frail persons in surveys is a biased picture of the health situation in very old age.

The household population is the target population of all major surveys in Germany. Therefore people who no longer live in private households are systematically

excluded and not represented. Due to rising life expectancy, the number of people living in residential homes is growing. This sub-population needs to be considered even if data collection costs are higher.

In general, interview burdens need to be adapted for those with health limitations. These persons are less likely to be included in general, but keeping them in longitudinal studies would increase the data quality of existing surveys.

Persons with low or high socio-economic status (SES) are less likely to be included in surveys. But as they are specific target groups for interventions (e. g. persons with low SES are more likely to experience health problems), data is needed. Data available today is sufficient to investigate the economic “mainstream” of older people, but they exclude people living under very poor and very rich material living conditions. These are social groups that are relevant for scientific policy advice and empirical knowledge should be enhanced.

Non-German-speaking persons are underrepresented in all major data sources. Already 19.5 per cent (2011) of the German population have a migration background. Consequently, needs and expectations of foreigners and people with non-German ethnic background need to be evaluated and addressed.

Future themes of older generations need to be included. Since the baby-boomer generation will retire in the next years, their future plans for housing, arrangements of time and social relations may be different and adaptation of question modules might be needed to capture the variety of plans and needs of future generations entering old age.

Demographic change is not only a phenomenon of the country as a whole. It takes place in regions and communities and the consequences of population ageing are very different from federal state to federal state, from urban to rural regions and from community to community. This fact is not reflected in data sets up to now. There is not enough data for detailed small-scale regional analyses.

In the following, the listed gaps of the German data landscape are evaluated in accordance to the policy agenda. Germany faces the challenges of an ageing population. There are rapid demographic changes due to low fertility rates, only modest immigration and rising life expectancy, which have been recognised by the German Government. Under the headline “Every Age Counts” several aims for the future have been highlighted such as to ensure autonomous life in old age or to secure the preconditions for sustainable growth and welfare.

The data sets identified and described in this report allow to illustrate the needs of ageing individuals in communities and to some extent to evaluate the effects of demographic strategies implemented by the government (e. g. change in standard retirement age). Large samples which are assessed regularly over time are necessary but not sufficient to monitor policy strategies within the domain of demographic challenges. Given the gaps of the available data, e. g. the exclusion of very old people, people at the margin of society and people no longer living at home, upcoming trends in the ageing population and changing needs and

expectations might be difficult to describe and predict. Therefore the challenges for society and politics to provide and ensure, for example, a functional and fair social and health care system in Germany might be underestimated.

Within the next 20 years, certain demographic trends will accelerate (e. g. rising number of people in need of help and care, increasing proportion of regions with low population density). For that reason it is necessary to invest in understanding the needs and challenges of ageing people as soon as possible.

Long-term care is one of the biggest challenges of population ageing at present and in the future. Data sets on this issue available as Scientific Use Files are lacking. Data on the situation of people in long-term care and on specific aspects of long-term care for special populations, e. g. migrants, homeless and others, is needed.

There are several German studies investigating health and health attitudes. A lot of knowledge on these issues could be gained in recent years, still data on mortality as a specific aspect of health cannot be sufficiently collected by usual empirical studies. Taking into account the importance of mortality and its counterpart life expectancy for demographic change, there are initiatives to establish a National Mortality Register and a National Cohort Study in Germany. This data will be a valuable source on these issues in the future.

Generational solidarity is essential for social cohesion. However, in Germany data has only partly begun to incorporate a generational structure in surveys. Most available data is individual microdata that cannot be linked to household and family members. Studies such as PAIRFAM and SOEP already included the simultaneous assessment of partners, family or household members. To understand intergenerational solidarity and conflicts more data is needed.

Besides these content-related issues, a practical-methodological perspective needs to be mentioned to evaluate the data situation in Germany. A variety of data by official statistics and surveys is available, which are connected to the issues of demographic change in Germany. It was an important step to establish an institution connecting producers and data users – the German Data Forum (Rat für Sozial- und Wirtschaftsdaten, RatSWD). This institution makes important contributions to collect information on all relevant German data sources, to discuss focal points of empirical research, methodical approaches and issues of data dissemination. But there are still tasks to be solved: Despite the strengths and challenges of German data sources, high international usability of German data is not yet obtained. Documentation and data sets are not always available in English. The provision of data by research data centers is one important easement for international users, but the importance of international usability has not been fully recognised in Germany. Since data available in Germany is diverse, has a high quality, and includes big samples, it is important to improve international access and usability.

In sum, Germany has established an adequate data structure. Apart from its weaknesses, there is no need to reorganise the basic structure. Data with open-access is already on a high level of quality and quantity. Based on the given strengths and existing gaps it is recommended to extend the German data landscape with regard to the excluded sub-populations and to improve international usability.

3 SELECTED GERMAN DATASETS ON DEMOGRAPHIC CHANGE

3.1 Data Mapping: Topics and Datasets

Topic	Selected Datasets
Health	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ German Health Interview and Examination Survey for Adults / Studie zur Gesundheit Erwachsener in Deutschland (DEGS) ▪ Possibilities and Limits of an Independent Living and Health/ Möglichkeiten und Grenzen selbständiger Lebensführung (MUG) ▪ Study of Health in Pomerania / Leben und Gesundheit in Pommern (SHIP) ▪ Telephone Health Survey - German Health Update / Telefonische Gesundheitssurveys (GSTel und GEDA)
Social systems and welfare	<ul style="list-style-type: none"> ▪ Biographical Data of Selected Social Insurance Agencies in Germany / Biografiedaten ausgewählter Sozialversicherungsträger in Deutschland 2007 (BASiD 2007) ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ Microcensus / Mikrozensus ▪ Sample of Insured Persons and their Insurance Accounts / Versicherungskontenstichprobe der DRV ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP) ▪ Sample Survey of Income and Expenditure (IES) / Einkommens- und Verbrauchsstichprobe (EVS)
Work and productivity	<ul style="list-style-type: none"> ▪ Employment after Retirement / Weiterbeschäftigung im Rentenalter ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ IAB Establishment Panel / IAB Betriebs-Panel ▪ Labour Market and Social Security / Arbeitsmarkt und soziale Sicherung (PASS) ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP)
Education and learning	<ul style="list-style-type: none"> ▪ Adult Education Survey (AES) / Weiterbildungsverhalten in Deutschland ▪ National Education Panel Study / Nationales Bildungspanel (NEPS)

	<ul style="list-style-type: none"> ▪ Survey on information and communication technologies / Erhebung über die private Nutzung von Informations- und Kommunikationstechnologien (IKT)
Housing, environment and mobility	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ Mobility Panel Germany / Deutsche Mobilitätspanel (MOP) ▪ Possibilities and Limits of an Independent Living and Health/ Möglichkeiten und Grenzen selbständiger Lebensführung (MUG) ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP)
Attitudes to old age	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS)
Social, civic and cultural engagement	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ German Survey on Volunteering / Deutscher Freiwilligensurvey (FWS) ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP) ▪ Time Use Survey / Erhebung zur Zeitverwendung
Uses of technology	<ul style="list-style-type: none"> ▪ Adult Education Survey (AES)/ Weiterbildungsverhalten in Deutschland ▪ Survey on information and communication technologies / Erhebung über die private Nutzung von Informations- und Kommunikationstechnologien (IKT) ▪ Time Use Survey / Erhebung zur Zeitverwendung
Well-being	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP)
Intergenerational relationships	<ul style="list-style-type: none"> ▪ German Ageing Survey / Deutscher Alterssurvey (DEAS) ▪ German Family Panel / Beziehungs- und Familienpanel (PAIRFAM) ▪ German Socio-Economic Panel / Sozio-oekonomisches Panel (SOEP)

3.1.1 Adult Education Survey (AES) / Weiterbildungsverhalten in Deutschland

Institution, URL	TNS Infratest Sozialforschung, München (http://www.tns-infratest.com/SoFo/Expertise/Bildungsforschung_AES.asp)
Type of data	Cross-sectional survey
Access to data	Data available via GESIS - Study No. ZA5074: Adult Education Survey (AES 2010 - Germany). Data can be downloaded after registration at no cost. Data and documents are free for academic research and teaching (www.gesis.de).
Sample and age range	Multiple stratified random sample (ADM-standard) of the population in private households aged 18 to 64 years
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 2007 with a sample size of approximately 7,000 individuals. ▪ Wave 2: Data collected in 2010 with a sample size of approximately 7,000 individuals. <p>Preceding survey – Berichtssystem Weiterbildung (BSW) (partly comparable): Data was collected in 1979, 1982, 1985, 1988, 1991, 1994, 1997, 2000, 2003, and 2007.</p>
Language issues	Data is available in German only.
Coverage	The survey monitors learning activities of adults as a part of the national education reporting and as a part of European official statistics. All kinds of education in adult age are reported: formal education (attending regular vocational training), non-formal education (attending further training) and informal learning activities.
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ ISCO 1988 (International Standard Classification of Occupation, 1988) ▪ ISCED, ISCED-Field (International Standard Classification of Education) ▪ NACE (Nomenclature statistique des activités économiques dans la Communauté Européenne, Code of economic sectors) ▪ CLA (Classification of Learning Activities)
Strengths and weaknesses	The AES is a monothematic survey and records information on different educational activities in adult age in a very detailed manner. The dataset is appropriate for trend analysis because it is a repeated cross-sectional survey. It is also suitable for comparing analyses within the EU-member states. Such analyses were carried out with the data of the AES 2007, in which most of the EU-member states took part. A variety of socio-

demographic information is recorded, e. g. the educational background of the respondents and their parents, labour status, sector and size of company, job and occupational status, income and so on.

Besides educational and occupational items, context information is recorded only to a limited extent. AES data are cross-sectional, so longitudinal analyses are not possible.

3.1.2 *Biographical Data of Selected Social Insurance Agencies in Germany / Biografiedaten ausgewählter Sozialversicherungsträger in Deutschland 2007 (BASiD 2007)*

Institution, URL	Research Data Centre of the German Pension Insurance (FDZ-RV)/ Forschungsdatenzentrum der Rentenversicherung (FDZ-RV) (http://forschung.deutsche-rentenversicherung.de/FdzPortalWeb/?ViewNavi=StartSeite)
Type of data	Dataset produced by matching two registry data sources
Access to data	Datasets are made available by the Research Data Centre; data are provided to the scientific community as a Scientific Use File (SUF), as well as a weakly anonymised dataset accessible by on-site use. A SUF is available after signing a research contract.
Sample and age range	<ul style="list-style-type: none"> ▪ Disproportional stratified random sample, stratified by insurance provider, sex, nationality and cohort ▪ Persons at the age of 30 to 67 years with a valid contributions account with the German Pensions Insurance at 31.12.2007
Time, waves and sample size	Data was collected in 2007 and had a sample size of 60,809 individuals.
Language issues	Data is available in German only.
Coverage	<p>The dataset connects longitudinal information from the pension insurance accounts with biographical data from the Federal Employment Agency (BA).</p> <p>Information by the Sample of Pension Insurance Accounts includes employment, unemployment, education, military/civil service, periods of sickness, child-raising periods, self-employment subject to social insurance, non-professional long-term caring (since 1995), minor employment (since 1999), pension and place of residence.</p> <p>Information by the datasets of the Federal Employment Agency (BA) includes profession, current job, receipt of unemployment benefits, times of job seeking, measures during job seeking, information on the enterprise, places of residence and occupation, occupational status and working time.</p>
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ Classification of occupations / Klassifizierung der Berufe. Systematisches und alphabetisches Verzeichnis der Berufsbenennungen, Eds.: Bundesagentur für Arbeit ▪ Classification for Industrial Branches WZ73, WZ93, WZ03, WZ08 referring to NACE ▪ BLK (Blossfeld's Occupational Classification) ▪ EGP – Classes (Erikson, Goldthorpe and Portocarero)

	<ul style="list-style-type: none"> ▪ MPS (Magnitude Prestige Scale)
Strengths and weaknesses	<p>The Research Data Centre of the Federal Employment Agency in the Institute for Employment Research (FDZ BA/IAB) and the Research Data Centre of the German Pension Insurance (FDZ-RV) offer longitudinal individual-level datasets. These datasets contain, on the one hand, information on the social security notifications and, on the other hand, characteristics of the administrative procedures of both institutions. In each institution, only information about the accomplishment of their own current tasks is recorded. The ambition of this project is to compile a common dataset which contains data of the RV and the BA, respectively the IAB. The richness of information on individuals will be increased through filling up gaps in the single data sources with information of the other data source. This will provide new opportunities for scientific research. The combination of different data sources also supports the improvement of the quality of administrative records. (Source: http://doku.iab.de/fdz/reporte/2011/DR_09-11.pdf)</p> <p>The sample is very large and data have a high validity and correctness. It is possible to carry out differentiated analyses in small groups.</p> <p>Data comprise a large time frame – the whole insurance biography. There are no non-responses or memory failures. A comprehensive catalogue of items on the employment biography is recorded.</p> <p>The sample is very complex, descriptive results have to be analysed with sample weights.</p> <p>Only biographical information that is connected to pension insurance is recorded. Information on civil servants, occupationally insured (berufsständisch Versicherte) and foreigners without permanent residence status are missing. Information on (married) couples and households are also missing. There are no data on men and their children.</p>

3.1.3 Employment after Retirement / Weiterbeschäftigung im Rentenalter

Institution, URL	Federal Institute for Population Research, Wiesbaden (http://www.bib-demografie.de/EN/Research/Surveys/EARS/ears.html)
Type of data	Cross-sectional data
Access to data	The dataset is available for scientific, non-profit use. The data set is free of charge and can be downloaded via GESIS (Study number 5457) after signing a contract.
Sample and age range	Employees (freelancers excluded) born 1944-1953
Time, waves and sample size	The data were collected in 2008 with a sample size of 1,500 units
Language issues	Data available in German only.
Coverage	<p>With the objective to identify reasons for the continuation of work beyond retirement age, the data set includes variables on a variety of topics related to the field of work and productivity. The data set covers the following topics within the work domain:</p> <ul style="list-style-type: none"> ▪ Current employment (contractual number of hours, position, receipt of pension besides income from employment, short-time work, seasonal work, position, hours worked within a week, years worked for the current workplace, number of former employers), ▪ Current workplace (number of employees, sector), ▪ Unemployment (when and for how long), ▪ Retirement (opinion on the increase of the retirement age from 65 to 67 years, own retirement age without deduction, desired retirement age), ▪ Self-assessment of current working conditions (interest, identification with workplace, motivation, satisfaction, concentration, monotony, posing risks to health etc.), ▪ Working atmosphere (relationship to colleagues and management etc.), ▪ Continuation of work after reaching retirement age (motivation, requirements and desires).
Use of internationally harmonised standards	No information available.
Strengths and weaknesses	The data set is designed to identify factors which have an impact on the willingness to continue to work beyond retirement age, as well as the desired working conditions for this continuation. The study allows for

the analysis of the current professional situation, the opinion on the increase of the retirement age, job satisfaction, working conditions, work atmosphere, health and information on further education.

Moreover, the correlation of these aspects with others such as gender, family status, various personality traits or establishment size and sector can be analysed.

However, the data set does not include freelancers and allows for the analysis of employees who were born between 1944 and 1953 only.

Moreover, it is a cross-sectional study, which was conducted in 2008.

Therefore, it cannot be surveyed if the intention to work beyond retirement age has been realised or not. Furthermore, the data are available in German only.

3.1.4 German Ageing Survey / Deutscher Alterssurvey (DEAS)

Institution, URL	German Centre of Gerontology (DZA), Berlin (http://www.dza.de/forschung/deas.html)
Type of data	Combination of regular cross-sectional and longitudinal survey (cohort-sequential design).
Access to data	Access via research data centre for scientific, non-profit use after signing a data distribution contract, data free of charge http://www.dza.de/forschung/deas.html)
Sample and age range	Community-dwelling people aged 40-85 years (base samples)
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 1996 (DOI 10.5156/DEAS.1996.M.001) with a sample size of 4,838 individuals. ▪ Wave 2: Data collected in 2002 (DOI 10.5156/DEAS.2002.M.001) with a base sample of 3,084 individuals, a migrant sample of 586 individuals, and a panel sample of 1,524 individuals. ▪ Wave 3: Data collected in 2008 (DOI 10.5156/DEAS.2008.M.001) with a base sample of 6,205 individuals and a panel sample of 1,995 individuals. ▪ Wave 4: Data collected in 2011 with a panel sample of 4, 855 individuals. ▪ Wave 5: Data will be collected in 2014. A new base sample will be drawn and the panel sample will be reassessed.
Language issues	Documentation and data is available in German and English
Coverage	<p>The DEAS is a multidisciplinary survey providing national representative data of the German population aged over 40 years on various topics:</p> <ul style="list-style-type: none"> ▪ Employment and retirement ▪ Generations, family and social networks ▪ Activities outside the work environment and volunteer work ▪ Housing situation and mobility ▪ Economic situation and economic behaviour ▪ Subjective well-being and quality of life ▪ Health and health behaviour, need of assistance and need of care, ▪ Attitudes, norms, values and ▪ Images of age and ageing <p><i>Health:</i></p> <ul style="list-style-type: none"> ▪ Physical health, functional health, subjective health, mental health, health behaviour, need of care, need of assistance, health care utilization, sentinel health events, pain, sleep, health test and information on mortality (among others)

Social systems and welfare:

- Employment careers, transition to retirement, incomes, property, financial and material transfers, saving and dis-saving, subjective fulfillment of needs, and living standards

Work and productivity:

- Education and first employment, the current employment (position, average number of working hours, number of employees, workplace sector), breaks in employment and their reasons and durations, the last employment (position, hours worked, number of employees, part-time employment prior to retirement); transition to retirement; work beyond retirement (hours, motivation and reasons), subjective indicators such as satisfaction with current working conditions (working hours, income, further education etc.), stresses and strains; and a self-assessment of the probability of unemployment and the chances of finding new employment, education and employment of the current and the last partner

Housing, urban development and mobility:

- Housing indicators cover: ownership status, housing cost, moving, neighbourhood surroundings and residential environment, residential history, type of dwelling, household facilities, and satisfaction with housing (current, past and future expectations). Mobility, besides ownership of a car, is not assessed.

Public attitudes towards older age:

- Individual views on ageing, images of ageing in society, subjective age, attitudes towards retirement and ageism

Social, civic and cultural engagement::

- Memberships in associations for older people and in other associations, the duration of membership, frequency of volunteering, honorary office, expenditure of time for volunteering, barriers to volunteering, volunteering in the past, being interested in (more) volunteering, area of volunteering and informal help for others.

Well-being:

- Cognitive (life satisfaction in general, domain-specific satisfaction) and emotional well-being (frequency of experiencing positive and negative emotions); a screening instrument for depression, loneliness and optimism; in 2014, the well-being module will be expanded by adding a measure of stress

Intergenerational relationships:

	<ul style="list-style-type: none"> ▪ Persons who can be asked for advice and turned to when in need for comfort and cheering up instrumental support and financial transfers (given and received); housework done for relatives; worries, quarrels and joy/happiness related to relatives; paternalism; spatial distance, frequency of contacts, emotional closeness (parents, children, grandchildren); importance of the grandparent-role and childcare provided by grandparents; existence and number of great-grandchildren; evaluation of family relations
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics):NUTS 3 ▪ ISCED-97 (International Standard Classification of Education) ▪ ISCO-88 (International Standard Classification of Occupation)
Strengths and weaknesses	<p>The DEAS provides a data structure that allows analysing social change and the consequences of an ageing society as well as individual change over time or in relation transitions (e.g. retirement). It has a cohort-sequential design, so empirical analyses can be conducted in different ways – with a cross-sectional, a longitudinal or a cohort focus. The DEAS stands out because of his interdisciplinary approach. It is a multi-topic dataset, therefore items can be analysed in the context of many other variables, e.g. family structures, socio-economic status, health, attitudes on age, regional variables. Moreover, the German Ageing Survey includes variables on a wide variety of topics combining psychological, economic and sociological aspects as well as subjective indicators. In sum the DEAS is one of the data sources in Germany which provides the most comprehensive data on the living situation of people 50 years and older.</p> <p>As a result multiple topics of the JPI MYBL are covered in the DEAS. However the extent of coverage varies between topics, with health, social systems and welfare, work and productivity and intergenerational relationships covered more broadly than well-being, housing and mobility, attitudes towards ageing and volunteering.</p> <p>Some specific coverage strengths are that health is assessed as a multi-dimensional construct. Further information on the employment situation of officially unemployed persons are provided as well as the educational attainment and the occupational position of the current and the last partner of the respondent, as well as for his/her parents and children. Therefore, intergenerational occupational mobility can be analysed. Moreover, the possible linkage of subjective data to registry information on regional context factors (such as population structure in the community, gross-domestic product of community etc.) on the NUTS3 level is a great potential of the DEAS. As an ageing survey with respondents aged 40 and above, the DEAS gives, in addition, in-detail-information on specialised clubs and organisations for the elderly.</p>

Some coverage specific weaknesses are on the other hand that the majority of health indicators are self-assessed, objective health indicators are limited, bio markers are not available. The DEAS also do not include information on mobility, which limit the survey to questions concerning housing.

The DEAS has other weaknesses, too, that need to be mentioned. Although the DEAS assesses participants over the age of 85 and participants living in care facilities, the sample is not representative for very old age (85 years and older) and persons living in institutions, therefore, the living situation as well as societal and individual change within these sub-populations cannot be investigated without loss of data quality. The first wave of the DEAS was limited to participants with German citizenship, since 2002 the inclusion criteria is ability to speak and understand German. Despite the effort to include foreigners and people with migration background, the DEAS is still not representative for this sub-population.

Nevertheless, it can be pointed out that there is a good documentation (survey instruments, methodological reports, codebooks, correspondence of variables) available on the website of the Research Data Centre (www.dza.de/.../deas-documentation.html) as well as access to English Versions of the data and documentations.

3.1.5 German Family Panel / Beziehungs- und Familienpanel (PAIRFAM)

Institution, URL	Chemnitz University of Technology, University of Bremen and the Ludwig Maximilian University of Munich, (http://www.pairfam.de/en/study.html)
Type of data	Longitudinal survey, cohort study
Access to data	Data is released for academic research and teaching on receipt of the data depositor's written authorisation. Depending on the user's status, a standard CD-Rom is available for 20€ for academic users. Online download, however, is free of charge.
Sample and age range	<p>PAIRFAM is based on a multi-actor design. In wave 1, the anchors and their partners were interviewed. Interviews with the anchor's parents and / or stepparents as well as his/her child (between the ages of 8 to 15) have been conducted since wave 2.</p> <p>The anchor individuals are living in private households in Germany and were born within one of the following time periods: between 01.01.1991 and 31.12.1993 (Cohort 1); between 01.01.1981 and 31.12.1983 (Cohort 2); and between 01.01.1971 and 31.12.1973 (Cohort 3).</p>
Time, waves and sample size	<p>Data is collected annually since 2008.</p> <ul style="list-style-type: none"> ▪ Wave I: Data collected from 2008 to 2009. Sample size of 16,145 units (12,402 anchor individuals + 3,743 partners) ▪ Wave II: Data collected from 2009 to 2010. Sample size of 17,643 units (9,069 anchor individuals + 2,688 partners + 5,015 parents + 862 children) ▪ Wave III: Data collected from 2010 to 2011. Sample size of 15,196 units (7,901 anchor individuals + 2,362 partners + 3,946 parents + 987 children) ▪ Wave IV: Data collected from 2011 to 2012. Sample size of 13,672 units (7,049 anchor individuals + 2187 partners + 3352 parents + 1084 children)
Language Issues	All documents, labels, questionnaires etc. are available in German and English.
Coverage	PAIRFAM depicts intergenerational relationships at different points in time and pays particular attention to their exact and multifaceted portrayal. Biological parent-child relationships, adoptive constellations, stepparents- and parents-in-law relationships and grandchild-grandparent relationships are covered. Since the focus is on the anchor's relationships to their biological, adoptive, and stepparents, these parent-child relationships are portrayed in more detail. All in all, the dataset allows for a description of central aspects of

	<p>intergenerational relationships and the generations involved (e.g. intergenerational solidarity, intergenerational ambivalence) (cf. Schmahl et al. 2012: 85). Aspects covered are, for example, attitudes on intergenerational support, frequency of contact, relationship quality and transmission processes between generations; material and immaterial intergenerational transfers; familial norms and children's expectations of their parents (cf. PAIRFAM 2013).</p>
<p>Use of internationally harmonised standards</p>	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics):NUTS 1, NUTS 5 ▪ ISCED-97 (International Standard Classification of Education) ▪ CASMIN (Comparative Analysis of Social Mobility in Industrial Nations) ▪ KldB (Classification of Occupation (Klassifikation der Berufe) proposed by the German Statistical Office) ▪ ISCO-88 (International Standard Classification of Occupation) ▪ EGP (Class scheme according to Erikson, Goldthorpe and Portocarrero, ▪ ISEI (International Socio-Economic Index) ▪ SLOPS/Treiman-Scale (Standard International Occupational Prestige Scale) ▪ MPS (Magnitude-Prestige-Scale) ▪ GCEE (Net equivalence income according to the German Council of Economic Experts)
<p>Strengths and weaknesses</p>	<p>PAIRFAM is a multidisciplinary, longitudinal study on partnership and family dynamics and includes a wide variety of topics. The dataset offers unique opportunities for the analysis of partner and intergenerational relationships as they develop over the course of multiple life phases. The multi-actor design offers preponderant, full dyadic perspectives on a variety of intergenerational relationships between children, parents, grandparents, stepparents and parents-in-law of mainly grown-up anchors. All in all, all central aspects of intergenerational relationships can be described. The focus, however, is not on intergenerational relationships in very old age (oldest anchors born in 1971). Moreover, the dataset offers the opportunity to deal with the relevance of contextual conditions by linking microdata from the PAIRFAM survey with a selection of external macrodata. Finally, a very good documentation of all instruments, as well as the do-files and syntaxes for basic operations are available on the PAIRFAM homepage.</p>

3.1.6 German Health Interview and Examination Survey for Adults / Studie zur Gesundheit Erwachsener in Deutschland (DEGS)

Institution, URL	Robert Koch Institute (RKI), Berlin (http://www.degs-studie.de/english/home.html)
Type of data	Combination of regular cross-sectional and longitudinal survey
Access to data	Available for scientific, non-profit use after signing a data distribution contract, 90 Euros are charged for each data CD
Sample and age range	Persons living in Germany aged 18 years and older
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collection for the GNHIES98 (German National Health Interview and Examination Survey 1998) sample was carried out from 1997 to 1999. It included a sample size of 7,124 individuals. ▪ Wave 2: Data collection for the DEGS1 sample was carried out from 2008 to 2011. It included a sample size of 8,152 individuals (Panel: 3,959 individuals). ▪ Wave 3: Data collection for the next wave will be from 2014 to 2015. ▪ A new sample will be drawn in 2017-2018.
Language issues	Documentation (in parts) is available in German and English, while variables and value labels are available in German only. The homepage also contains all basic information (data access, etc.) in English.
Coverage	<p>The DEGS assesses health and health-related questions covering a wide range of different, highly important topics.</p> <ul style="list-style-type: none"> ▪ Self-reported morbidity, morbidity assessed by physician or health examination, medication use, objective health measures, symptoms and complaints, mental health, subjective health, gender-specific health issues, injuries, falls, functional health, disability, health-related behaviour, living and social conditions, socio-demographic context variables, health care service utilization (among others)
Use of internationally harmonised standards	<p>The majority of used instruments are standardised questions and scales as the RKI measuring standards comply with European and international recommendations.</p> <ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics):NUTS 3
Strengths and weaknesses	The health data collected in DEGS are highly valuable as the survey provides extensive, nationally representative data for Germany. The assessment modes are ideal as the DEGS combines personal

interviews, self-assessed questionnaires, physical examinations, and tests and analyses of blood and urine samples. The DEGS is the best dataset to determine disease prevalence in the population. The DEGS allows for cross-sectional and trend analysis because of the regular assessment of baseline samples with comparable characteristics over time. Furthermore, individual changes in health can be analysed using the longitudinal data of reassessed participants (panel design). The RKI has been involved in European initiatives to standardise national health interview and examination surveys, and for that reason, most data is comparable to other datasets in Germany and Europe.

Minor weaknesses of the DEGS are the long period between first and re-assessment of participants (10-14 years between GNHIES98 and DEGS1), the underrepresentation of very old people, people living in institutions, and people with an immigration background. The focus on health also limited the potential of the survey to analyse underlying mechanisms, such as socio-economic status, social relations or health-related behaviour, in addition to the assessed well-known risk factors.

3.1.7 German Socio-Economic Panel (SOEP) – Sozio-oekonomisches Panel

Institution, URL	Deutsches Institut für Wirtschaftsforschung (DIW), Berlin (http://www.diw.de/en/diw_02.c.222517.en/data.html)
Type of data	Longitudinal survey
Access to data	Available for scientific, non-profit use only. In accordance with the data protection law, the individual SOEP data sets cannot be downloaded directly from the homepage. A DVD will be sent via certified mail for a price of 30€ + 8€ forwarding expenses.
Sample and age range	Persons aged at least 17 years. The SOEP consists of a complex system of partial samples which have been integrated in different years into the panel. <ul style="list-style-type: none"> ▪ Sample A: Residents in the FRG (1984) ▪ Sample B: Foreigners in the FRG (1984) ▪ Sample C: German Residents in the GDR (1990) ▪ Sample D: Immigrants (1994/95), ▪ Sample E: Refreshment (1998), ▪ Sample F: Innovation (2000), ▪ Sample G: Oversampling of High Income (2002), ▪ Sample H: Refreshment (2006), ▪ Sample J: Incentivation (2009), ▪ Sample K: Increase (2011)
Time, waves and sample size	Data is collected annually since 1984 (West Germany) / 1990 (East Germany). Samples sizes of partial samples: <ul style="list-style-type: none"> ▪ Sample A + B: 12,245 individuals ▪ Sample C: 4,453 individuals ▪ Sample D: 1,078 individuals ▪ Sample E: 1,923 individuals ▪ Sample F: 10,890 individuals ▪ Sample G: 2,671 individuals ▪ Sample H: 2,616 individuals ▪ Sample J: 2,509 individuals ▪ Sample K: 5,161 individuals Complete sample sizes for selected years: <ul style="list-style-type: none"> ▪ 1984: 12,245 individuals; ▪ 1990: 13,971 individuals; ▪ 1995: 13,768 individuals; ▪ 1998: 14,692 individuals; ▪ 2000: 24,582 individuals; ▪ 2002: 23,443 individuals;

	<ul style="list-style-type: none"> ▪ 2006: 22,665 individuals; ▪ 2007: 21,7232 individuals, ▪ 2008: 19,945 individuals; ▪ 2009: 18,602 individuals, ▪ 2010: 17,156 individuals, ▪ 2011: 21,336 individuals
Language Issues	All documents, labels, questionnaires etc. are available in German and English.
Coverage	<p>The SOEP is a multidisciplinary survey that provides nationally representative household data on various topics</p> <p><i>Social systems and welfare:</i></p> <ul style="list-style-type: none"> ▪ The SOEP provides rich data on the social systems and welfare such as items on: education, training and qualification, labour market and occupational dynamics, earnings, income and social security. <p><i>Work and productivity:</i></p> <ul style="list-style-type: none"> ▪ Employment-related questions and earnings and income can be analysed in particular detail. The data set does not only include a wide variety of questions on current employment (e.g. working hours, working overtime, correspondence with trained occupation, number of employees in the company, type of employment contract, job as part of job-creation measure or '1-Euro-Job', commuting, individual preferences concerning working hours and days, partial retirement, industry, occupation, monthly salary, bonuses and benefits besides salary), but also information on the very first and the last job (e.g. when and how did it end, existence of new job prospect etc.), and hence allows observation of employment histories and occupational dynamics. Moreover, the survey includes information on job satisfaction, on job-related expectations (e.g. the estimated probability of losing the job, or chances on the labour market in case of job loss) and also captures secondary employment/work beyond retirement. <p><i>Housing, urban development and mobility:</i></p> <ul style="list-style-type: none"> ▪ The household questionnaire assesses the majority of housing-relevant indicators in the SOEP. Not all indicators are available for all waves, but since 1999 basic questions have been assessed annually. The housing indicators cover: ownership status, quality of dwelling, housing cost, moving, neighbourhood surroundings and residential environment, residential history, type of dwelling, household amenities, and satisfaction with housing. With regard to mobility, the SOEP had a specific module in 1998 and 2003, but

	<p>very basic indicators such as availability of a driver's licence or access to cars are assessed more often, but not annually. The mobility module covers existence, accessibility and use of public transportation on site; existence and use of cars and bike in the household; type of transportation used to go to work, go shopping, during leisure time, for day trips and to transport kids; attitudes towards driving, public transportation, leisure time at home, and environment consciousness. Besides the annual assessment of satisfaction with housing, satisfaction with living area, environment conditions and goods and services offered on site are assessed irregularly.</p> <p><i>Social, civic and cultural Engagement:</i></p> <ul style="list-style-type: none"> ▪ The SOEP contains some items on volunteering and other forms of participation: volunteer work in clubs or social services, involvement in a citizens' group/political party/local government, attending church/religious events. <p><i>Well-being:</i></p> <ul style="list-style-type: none"> ▪ Life satisfaction using a one-item indicator has been assessed since 1984, while satisfaction with other life domains is assessed regularly, but is based on a different number of life domains during the years. Emotional well-being is assessed with four one-item indicators on frequency of feeling angry, worried, happy, and sad since 2007. Since 2002, every two years the SF-12 questionnaire, which assesses mental and physical health, is applied. In 2006 and 2011, questions concerning work stress were assessed. <p><i>Intergenerational relationships:</i></p> <ul style="list-style-type: none"> ▪ Family networks (spatial distance and self-evaluation of the relationship with parents, children, grandparents, grandchildren, siblings, other relatives) are assessed on an irregular basis (1991, 1996, 2001). Financial transfers given to relatives are assessed in almost all waves, while received financial transfers from relatives, however, are only assessed in certain waves (e.g. 2011, 2010, and 2009).
Use of internationally harmonised standards	<p>The SOEP is part of the Cross-National Equivalent File (CNEF). The CNEF contains equivalently defined variables for eight major surveys in eight countries: the US, Germany, Britain, Australia, Canada, Switzerland, Korea and Russia. (cf. Cornell University 2013; Frick et al: 2007).</p> <ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 - 5 ▪ ISCO-88 (International Standard Classification of Occupation) ▪ ISCED-97 (International Standard Classification of Education)

	<ul style="list-style-type: none"> ▪ NACE (Nomenclature des statistiques des activités économiques de la Communauté européenne - Statistical Classification of Economic Activities in the European Community) ▪ KLAS (occupational classification of the German Federal Statistical Office) ▪ ISEI (International Socio-Economic Index of Occupational Status) ▪ EGP (Erikson and Goldthorpe Class Category) ▪ SIOPS (Treimans Standard Int. Occupation Prestige Score), ▪ MPS (Magnitude-Prestige Scala - Wegener) ▪ CASMIN (Comparative Analysis of Social Mobility in Industrial Nations)
Strengths and weaknesses	<p>The SOEP contains a wide variety of topics and a combination of objective and subjective indicators. Moreover, the SOEP allows for the analysis of individual life-courses, as well as trends over time. Furthermore, all aspects cannot only be analysed on an individual, but also on a household level. Moreover, subjective data can be linked with registry information on regional context factors (such as population structure in the community, etc., NUTS1 up to NUTS5/LAU2 and even zip-code level), which is a great potential. The documentation of the data and support by the Research Data Centre at the DIW as well as the availability and usability for English-speaking researchers are excellent.</p> <p>Multiple topics of the JPI MYBL are covered in the SOEP. However, the extent of their coverage varies: Work and productivity, social systems and welfare as well as well-being are covered in more detail than housing, civic engagement and intergenerational relationships.</p> <p>Some specific strengths are that occupational dynamics and employment biographies can be analysed in detail. Furthermore, changes in housing needs and expectations can be analysed with regard to regional characteristics. Moreover, it is possible to analyse changes in life satisfaction over time and with regard to life events and the assessment of domain-specific satisfaction allows for more detailed analyses. Additionally, determinants of well-being, as well as consequences of well-being differences can be analysed.</p> <p>However, there are also some specific weaknesses. Apart from a few questions on partial retirement or work beyond retirement, the SOEP contains no special questions concerning older workers. Although the SOEP continues to interview participants after moving into institutional settings, the data is not representative for this sub-population with specific housing needs and mobility limitations. While it is positive that the SOEP assesses emotional well-being since 2007, the measurement limits analysis to four basic emotions and may not be able to capture emotional well-being in old age and among the oldest old.</p>

Intergenerational relationships are not assessed extensively. Family networks and financial transfers given to relatives are assessed in almost all waves, while received financial transfers from relatives, however, are only assessed in certain waves. Moreover, relatives cannot be identified on an individual level which is why relationships dynamics cannot be analysed. Moreover, the dataset does not include items on basic dimensions of relationships such as emotional closeness, frequency of contact or conflicts.

3.1.8 German Survey on Volunteering / Deutscher Freiwilligensurvey (FWS)

Institution, URL	German Centre of Gerontology (DZA), Berlin (http://www.dza.de/en/research/deutscher-freiwilligensurvey-fws.html)
Type of data	Cross-sectional survey data
Access to data	Data 1999, 2004: access via GESIS Data Archive, http://www.gesis.org/en/home/ Questionnaire and methods report 1999 and 2004 as well as questionnaire, methods report and data 2009: access via DZA Research Data Centre. Data and documents are only released for academic research following the data depositor's written authorization. For this purpose, the Data Archive obtains written permission with specification of the user and the purpose of analysis.
Sample and age range	Random sample of the population in private households aged 14 years and older, only respondents that are able to answer a German questionnaire (up to 2009)
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 1999 with a sample size of 14,922 individuals. ▪ Wave 2: Data collected in 2004 with a sample size of 15,000 individuals. ▪ Wave 3: Data collected in 2009 with a sample size of 20,005 individuals. ▪ Wave 4: Data collection is planned for 2014.
Language issues	Data is available in German only.
Coverage	Study with a focus on social, civic and cultural engagement and volunteering. It covers aspects like activities in 14 areas of volunteering, potential of volunteering, detailed information about the most time-consuming activity, context indicators of volunteering (organisations, region), individual background.
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 <p>No other harmonised standards in the waves from 1999 to 2009.</p>
Strengths and weaknesses	The German Survey on Volunteering (FWS) is a representative survey on volunteer work, honorary office and civic engagement of the German population aged 14 and older. The FWS provides a substantial database for the description of volunteering in Germany and allows detailed reporting on participation among population groups and across regions.

It is the basic instrument for social accounting on volunteering in Germany.

The FWS is focused on a variety of volunteering issues associated with institutions such as associations, organisations, churches and others. Some informal volunteering activities are omitted (such as neighbourhood assistance). There are only a few correlates to analyse relations to other factors of the living situation (items on e.g. health status are lacking up to wave 2009).

The dataset is easily available by the Research Data Centre FDZ-DZA (wave 2009) or by GESIS (1999, 2004). By transferring the datasets to the Research Data Centre FDZ-DZA, handling of the dataset and consulting will become even more convenient. So far, the dataset is only available in German, which is a disadvantage for its dissemination. At present, it takes about two years after field time to publish the current dataset. The FWS is the only survey with an exclusive focus on volunteering and it provides a large number of cases (about 25,000 cases planned for 2014).

3.1.9 IAB Establishment Panel / IAB Betriebs-Panel

Institution, URL	Research Data Centre of the German Federal Employment Agency (BA) and the Institute for Employment Research (IAB) , Nuremberg (http://fdz.iab.de/en/FDZ_Establishment_Data/IAB_Establishment_Panel/IAB_Establishment_Panel_Data_Access.aspx)
Type of data	Longitudinal survey
Access to data	Available for scientific, non-profit use and for the purpose of employment research only. Data can be downloaded after signing a data distribution contract. The data set is free of charge.
Sample and age range	Establishments of all sectors and sizes
Time, waves and sample size	Data is collected annually since 1993 (West Germany) / 1996 (East Germany) and includes a sample size of 16,000 establishments of all sectors and sizes. The reference date of the sample is June 30th.
Language Issues	All documents, labels, questionnaires etc. are available in German and English.
Coverage	The number of employees older than 50 years is surveyed in some years (e.g. 2002, 2006). Concerning the question of how far an ageing population is changing employers' behaviour, the data set includes (for certain years: 2002, 2006, 2008, 2011) variables on individual personnel measures for older workers. These cover partial retirement, special equipment at the workplace, adaptation of performance requirements, further education, mixed-age working groups and health promotion (the latter in 2011 only). These personnel measurements can be analysed on an establishment level with regard to establishment size and sectors, etc. Additionally, the 2002 questionnaire puts a focus on elderly employees and asks employers to assess if certain characteristics such as creativity, flexibility, loyalty or the willingness to learn are more commonly found in older or younger employees. Moreover, this wave allows analysis of circumstances in which employees older than 50 years would be employed (part-time, fixed-term, financial support, only if there are no younger applicants etc.). Furthermore, the importance of keeping older skilled employees longer in the establishment was surveyed in 2011.
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 3

Strengths and weaknesses

The IAB Establishment Panel is the central basis for the analysis of labour demand in Germany. However, questions on older employees are not included in all waves, but starting in 2002, they are assessed on a regular basis (2002, 2006, 2008 and 2011). Therefore, the data set can answer several questions on how far ageing populations are changing employers' behaviours and attitudes since it provides information on the number of older employees and individual personnel measures for older workers. Moreover, the wave in 2002 provides information on how employers assess certain characteristics of older employees, such as creativity or flexibility.

However, the data set only allows analysis on a workplace level. In order to obtain information on employee histories and occupational mobility, the Establishment Panel is available in versions of the Linked Employer/Employee Data (LIAB).

3.1.10 Labour Market and Social Security / Arbeitsmarkt und soziale Sicherung (PASS)

Institution, URL	Institute for Employment Research (IAB) of the German Federal Employment Agency (BA), Nuremberg (http://www.iab.de/962/section.aspx/Projektdetails/k060821f35)
Type of data	Longitudinal household survey
Access to data	Available for scientific, non-profit use and for the purpose of employment research only. Data can be downloaded after signing a data distribution contract. The data set is free of charge.
Sample and age range	Persons aged at least 15 years. The survey consists of two subsamples, each of ca. 6,000 households: Individuals and households receiving the Unemployment Benefit II (sample I) and individuals and households residing in Germany, with an overrepresentation of low-income households (sample II). Samples III, IV and V are refreshment samples for sample I.
Time, waves and sample size	<p>The survey is conducted annually.</p> <p><i>Wave 1</i></p> <p>Data collection was carried out from 2006-2007. The sample sizes were:</p> <ul style="list-style-type: none"> ▪ Sample I: 9,386 individuals (living in 6,804 households) ▪ Sample II: 9,568 individuals (living in 5,990 households). <p><i>Wave 2</i></p> <p>Data collection was carried out from 2007-2008. The sample sizes were:</p> <ul style="list-style-type: none"> ▪ Sample I: 4,753 individuals (living in 3,491 households) ▪ Sample II: 6,392 individuals (living in 3,897 households) ▪ Sample III: 1,342 individuals (living in 1,041 households). <p><i>Wave 3</i></p> <p>Data collection was carried out from 2008-2009. The sample sizes were:</p> <ul style="list-style-type: none"> ▪ Sample I: 4,913 individuals (living in 3,754 households) ▪ Sample II: 6,207 individuals (living in 3,901 households) ▪ Sample III: 898 individuals (living in 694 households) ▪ Sample IV: 1,421 individuals (living in 1,186 households). <p><i>Wave 4</i></p> <p>Data collection was carried out in 2010. The sample sizes were:</p> <ul style="list-style-type: none"> ▪ Sample I: 3,958 individuals (living in 2,815 households) ▪ Sample II: 5,016 individuals (living in 2,977 households) ▪ Sample III: 786 individuals (living in 563 households)

	<p>Sample IV: 983 individuals (living in 745 households) Sample V: 1,025 individuals (living in 748 households).</p> <p>Wave5</p> <p>Data collection was carried out in 2011. The sample sizes were:</p> <ul style="list-style-type: none"> ▪ Sample I: 3,394 individuals (living in 2,382 households) Sample II: 4,511 individuals (living in 2,680 households) Sample III: 653 individuals (living in 464 households) Sample IV: 822 individuals (living in 608 households) Sample V: 760 individuals (living in 517 households) Sample VI: 2,589 individuals (living in 1,510 households) Sample VII: 1,859 individuals (living in 1,321 households) Sample VIII: 1,019 individuals (living in 753 households).
Language issues	Documentation and data is available in German and English
Coverage	<p>PASS allows for the analysis of work and employment histories with a focus on entries into, and exits from drawing benefits and their relation to individual events or social and labour market policy measures according to the Social Security Statute Book II (SGB II). Besides socio-demographic, subjective and benefit-related characteristics, a number of employment-related characteristics are assessed:</p> <ul style="list-style-type: none"> ▪ Status of (un)employment; mini-job; working hours; occupational status (detailed); occupation (ISCO-88 und KIdB-92); ISCO-based measures of occupational status and prestige (ISEI, SIOPS, MPS, EGP, ESeC); income from employment (gross & net); employment biography with (un)employment episodes and periods of non-employment; start date of current employment; fixed-term employment; change of fixed-term status; supervisory function; other employment; detailed information on the employment search status and reservation wage as well as employment orientation (cf. FDZ IAB 2013).
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ ISCO-88 (International Standard Classification of Occupation) ▪ ISCED-97 (International Standard Classification of Education) ▪ CASMIN (Comparative Analysis of Social Mobility in Industrial Nations) ▪ EGP (Class scheme according to Erikson, Goldthorpe and Portocarrero) ▪ ESeC (European Socio-economic Classification) ▪ MPS (Magnitude-Prestige-Scale) ▪ SIOPS/Treiman-Scale (Standard International Occupational Prestige Scale) ▪ ISEI (International Socio-Economic Index)

	<ul style="list-style-type: none"> ▪ WZ2003 (Classification of Economic Activities 2003).
Strengths and weaknesses	<p>The panel design of Labour Market and Social Security allows for the analysis of social processes and the non-intended side-effects of labour market reforms. It is suited to answer many questions concerning work, productivity and the impact of institutional, welfare and regulatory regimes. The panel design enables the user to analyse work and (un-)employment histories, as well as pathways into and out of dependency. In order to ensure that there are no systematically missing data for migrants, who are an important target group, the interviews are administered not only in German and English but also in Turkish and Russian, the mother tongues of two important migrant groups in Germany. For persons older than 65, however, a shortened version of the questionnaire is employed. The Research Data Centre of the German Federal Employment Agency (BA) and the Institute for Employment Research (IAB) offers a consulting service and workshops for working with PASS data. Moreover, all questionnaires, documentations and other working tools are available in German and English.</p>

3.1.11 Microcensus / Mikrozensus

Institution, URL	Research Data Centre of the Federal Statistical Office - Forschungsdatenzentrum des Statistischen Bundesamtes, Düsseldorf (http://www.forschungsdatenzentrum.de)
Type of data	Combination of regular cross-sectional and longitudinal survey
Access to data	The dataset is available from the Research Data Centre. Scientific Use Files (SUF) are only available for scientific research and only for scientists in Germany. Some detailed data is only available for on-site workplaces. Access given only for projects limited in content and time (3 years at the most), SUF available on application and after signing a data privacy commitment and a research contract, most data with fees.
Sample and age range	No age range
Time, waves and sample size	Ongoing since 1973, References for Microcensus (basic files) 1973 to 2007: GESIS- MISSY, 2008 to 2011: quality reports (own calculations) <ul style="list-style-type: none"> ▪ Wave 1: Data was collected in 1973 and had a sample size of 448,366. ▪ Wave 2: Data was collected in 1976 and had a sample size of 442,791. ▪ Wave 3: Data was collected in 1978 and had a sample size of 441,563. ▪ Wave 4: Data was collected in 1980 and had a sample size of 440,824. ▪ Wave 5: Data was collected in 1982 and had a sample size of 443,154. ▪ Wave 6: Data was collected in 1985 and had a sample size of 437,603. ▪ Wave 7: Data was collected in 1987 and had a sample size of 439,015. ▪ Wave 8: Data was collected in 1989 and had a sample size of 385,831 ▪ Wave 9: Data was collected in 1991 and had a sample size of 516,038. ▪ Wave 10: Data was collected in 1993 and had a sample size of 513,830. ▪ Wave 11: Data was collected in 1995 and had a sample size of 512,509. ▪ Wave 12: Data was collected in 1996 and had a sample size of 509,243. ▪ Wave 13: Data was collected in 1997 and had a sample size of 509,892.

	<ul style="list-style-type: none"> ▪ Wave 14: Data was collected in 1998 and had a sample size of 507,861. ▪ Wave 15: Data was collected in 1999 and had a sample size of 506,897. ▪ Wave 16: Data was collected in 2000 and had a sample size of 503,185. ▪ Wave 17: Data was collected in 2001 and had a sample size of 503,961. ▪ Wave 18: Data was collected in 2002 and had a sample size of 503,075. ▪ Wave 19: Data was collected in 2003 and had a sample size of 502,873. ▪ Wave 20: Data was collected in 2004 and had a sample size of 499,849. ▪ Wave 21: Data was collected in 2005 and had a sample size of 477,239. ▪ Wave 22: Data was collected in 2006 and had a sample size of 496,815. ▪ Wave 23: Data was collected in 2007 and had a sample size of 483,595. ▪ Wave 24: Data was collected in 2008 and had a sample size of approximately 483,000. ▪ Wave 25: Data was collected in 2009 and had a sample size of approximately 490,000. ▪ Wave 26: Data was collected in 2010 and had a sample size of approximately 490,000. ▪ Wave 27: Data was collected in 2011 and had a sample size of approximately 487,000.
Language issues	Data is available in German only, but study documentations are available in English for the waves 1985 to 2005 (available on http://idsc.iza.org/metadata/).
Coverage	The Microcensus contains indicators of a variety of living conditions. There is a yearly basic questionnaire that contains indicators like sociodemographic items (household and family structure), items on employment, job and job-seeking, items on qualification and advanced vocational training, items on income and sources and amount of the living, old-age provisions, long-term care insurance. Some information is collected only every 4 years in an additional questionnaire, such as private and employee pensions, housing conditions, migration, commuting (for pupils, students and employees), number of born children (only women aged 15 to 75 years) and health topics.
Use of internationally	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ ISO (ISO country classification)

harmonised standards	<ul style="list-style-type: none"> ▪ WZ 2008 (German Classification of Economic Activities, 2008) ▪ ISCO 1988 (International Standard Classification of Occupation, 1988) ▪ KldB 1992 (Classification of Occupations, 1992) ▪ ISCED (International Standard Classification of Education)
Strengths and weaknesses	<p>The Microcensus is the largest official household survey in the European Union. Since 1957 – in East Germany (including Berlin-East) since 1991 – the Microcensus has provided statistical information in a detailed, subject-related and regional breakdown on the population structure, the economic and social situation of the population, families, consensual unions and households, on employment, job search, education/training and continuing education/training, the housing situation and health. The Labour Force Survey of the European Union (EU Labour Force Survey) forms an integral part of the Microcensus.</p> <p>The Microcensus is the base for adjustment for many official and non-official household and individual surveys, such as the Income and Consumption Survey (EVS) and the Continuous Household Budget Surveys. Items on housing and health are integrated every four years. The Microcensus also has close relations to other official statistics, in particular to other official labour statistics.</p> <p>The Microcensus contains a very large sample (one per cent of the population), so data make highly differentiated analyses possible. The design of the Microcensus as a multi-topic survey enables various combinations of its specific survey parts and the fulfillment of complex information requirements. Comparative analyses over long historic periods are possible, thus the Microcensus is particularly suitable to analyse social change.</p> <p>Respondents in the sample are legally obliged to take part in the survey, so the bias by non-response is much smaller than in other surveys.</p> <p>Data quality is ensured by a team of well trained and experienced interviewers and by automatic checks of data plausibility. Changing the survey mode from a “reporting week mode” to a continuous survey in 2005 has increased the representativeness of the data by taking into account seasonal fluctuations. (Source: Statistisches Bundesamt, Qualitätsbericht Mikrozensus)</p> <p>The Microcensus is a multi-topic survey, so not all topics can be analysed in great detail and with the whole variety of instruments. For some topics, important items are missing (e. g. health – items on subjective health). There are no items on subjective aspects (opinions, attitudes etc.). Longitudinal data are available, but only for the years 1996 to 1999 and 2001 to 2004</p>

3.1.12 Mobility Panel Germany / Deutsches Mobilitätspanel (MOP)

Institution, URL	Institute for Transport Studies, Karlsruhe Institute of Technology (KIT), Karlsruhe (http://mobilitaetspanel.ifv.uni-karlsruhe.de/en/index.html).
Type of data	Combination of regular cross-sectional and longitudinal survey
Access to data	Available for scientific, non-profit use via Clearing House of Transport Data at the Institute of Transport Research (http://www.dlr.de/cs/en/desktopdefault.aspx/1177_read-2160/) after signing a data distribution contract, 100 Euros are charged for the data
Sample and age range	No age range: Every household member independent of age (community dwelling households), e.g. MOP11 age range: 0-92 years (children under the age of 10 do not fill out a person questionnaire and a trip diary)
Time, waves and sample size	Data collection is ongoing since 1994. <ul style="list-style-type: none"> ▪ MOP94: Households: 239, persons: 517, trips: 12,380 ▪ MOP95: Households: 385, persons: 744, trips: 16,816 ▪ MOP96: Households: 748, persons: 1,487, trips: 37,233 ▪ MOP97: Households: 764, persons: 1,523, trips: 38,262 ▪ MOP98: Households: 746, persons: 1,500, trips: 36,770 ▪ MOP99: Households: 1,013, persons: 1,888, trips: 46,387 ▪ MOP00: Households: 837, persons: 1,618, trips: 38,273 ▪ MOP01: Households: 1,122, persons: 2,015, trips: 49,603 ▪ MOP02: Households: 982, persons: 1,774, trips: 43,219 ▪ MOP03: Households: 1,103, persons: 1,996, trips: 46,192 ▪ MOP04: Households: 1,033, persons: 1,838, trips: 44,384 ▪ MOP05: Households: 967, persons: 1,727, trips: 42,177 ▪ MOP06: Households: 907, persons: 1,555, trips: 38,246 ▪ MOP07: Households: 904, persons: 1,567, trips: 37,520 ▪ MOP08: Households: 1,062, persons: 1,783, trips: 43,029 ▪ MOP09: Households: 982, persons: 1,630, trips: 39,014 ▪ MOP10: Households: 1,042, persons: 1,768, trips: 42,131 ▪ MOP11: Households: 1,074, persons: 1,800, trips: 42,594
Language issues	The website with information is available in German and English, and a selection of reports and presentations are in English and French. The code plan of the data is available in English and a translation of the questionnaires to English is scheduled.
Coverage	The rotating panel survey provides information on household characteristics, socio-demographics, travel behaviour, trips and types of transportation, use of transportation, transportation available on site, reasons for trips, and environmental characteristics on site. Additionally

	in the trip diary, every household member over the age of 10 records each trip with reason, mode of transportation, distance, duration of trip.
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics):NUTS 3 <p>Assessment of mobility profile is comparable to international research</p>
Strengths and weaknesses	<p>The MOP surveys multiday and multi-period travel data for the household population in Germany. A unique characteristic of the MOP is the trip diary over the course of a week. The MOP can be used as a basis for descriptive mobility statistics, such as the general development of travel demand over time. The data can also be used to estimate long-term changes in transport demand under changing general conditions. Analysing the individual daily trip data allows for a description of the mobility of socio-demographic sub- and age groups. Since the individual data can be linked to regional data on mobility, individual and objective data on mobility can be associated. But there are some weaknesses in the MOP. Older persons, small households and households without a car are underrepresented in the survey. Furthermore, very active (mobile) participants are less likely to participate in the panel due to the high survey burdens of the trip diary. The potential to analyse the specific behaviour, needs and expectations of the elderly for travelling and transportation is limited, as the survey focuses on mobility of persons before retirement age (questions asked for distance to work, school, kindergarten, etc.). Information on health and other life domains is very limited, thus the possibility for examining underlying mechanisms is limited as well.</p>

3.1.13 National Education Panel Study (NEPS) / Nationales Bildungspanel

Institution, URL	NEPS Data Center, University of Bamberg (https://www.neps-data.de/en-us/datacenter.aspx)
Type of data	Multi-cohort-sequential survey, longitudinal data
Access to data	Scientific Use Files (SUF), Remote Data Processing (RemoteNEPS), On-site workplaces are available. Data is only for staff with academic qualification working at scientific institutions (universities or research institutes). Access to data is granted after signing a contract. Preconditions: Certificate to prove affiliation with the scientific institution, detailed description of the research project, confidentiality obligation. The use of NEPS-data is basically free of charge. Additional requirements of the NEPS resulting from the work with these data are payable by the data user.
Sample and age range	Several panel cohorts from newborn children up to adults.
Time, waves and sample size	2009 - 2013: six cohorts drawn in the years from 2009 to 2012, more than 60,000 individuals. These cohorts are interviewed regularly, from the first research period up to 2013 at least yearly.
Language issues	Data is available in German and English.
Coverage	<p>The NEPS concentrates on five dimensions of education, so-called pillars:</p> <ul style="list-style-type: none"> ▪ Pillar 1: Development of competencies in life-course ▪ Pillar 2: Education in life-course specific learning environments ▪ Pillar 3: Social inequality and educational decisions ▪ Pillar 4: Educational processes of people with a migration background ▪ Pillar 5: Returns of education <p>The life-course is subdivided into 8 stages:</p> <ul style="list-style-type: none"> ▪ Stage 1: New-born and entrance into educational institutions of early childhood ▪ Stage 2: Kindergarten and enrolment ▪ Stage 3: Primary school and transitions to secondary school I ▪ Stage 4: Learning in secondary school I and transitions to secondary school II ▪ Stage 5: Upper secondary school und transitions to college, vocational training or labour market ▪ Stage 6: Start of a vocational training and later on entry into labour market ▪ Stage 7: Higher education (university or university of applied sciences)

	<ul style="list-style-type: none"> ▪ Stage 8: Continuing vocational education and training (VET) and continuing general education
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 -3 ▪ KldB 1988 and KldB 2010 (German Classification of Occupations) ▪ ISCO-88 and ISCO-08 (International Standard Classification of Occupation) ▪ ISEI (International Socio-Economic Index of Occupational Status) ▪ SIOPS (Standard International Occupational Prestige Scale) ▪ MPS (Magnitude Prestige Scale) ▪ EGP (Erikson, Goldthorpe, and Portocarero's class categories) ▪ BLK (Blossfeld's Occupational Classification) ▪ CASMIN (Comparative Analysis of Social Mobility in Industrial Nations) ▪ ISCED-97 (International Standard Classification of Education) ▪ Years of Completed Education
Strengths and weaknesses	<p>The NEPS is a promising approach for educational research in adult age. In comparison to the AES, it provides panel data, which allow for longitudinal analyses. Further advantages of the NEPS are the recording of educational participation with regard to life stages and the more comprehensive recording of context information. The NEPS is designed as a long-standing study. It has an innovative concept of "pillars", which is realised by investigating different cohorts from newborns to adults. For each of these cohorts, longitudinal information is collected for the pillars development of competence, learning environments, educational decisions, ethnic background and educational returns.</p> <p>The NEPS is limited to adults up to the age of 65. With regard to the issue of lifelong learning and to the interaction of educational, occupational and life-courses, the NEPS could be a very valuable data source if the sample would also include older people. A further weakness is the recording of informal learning. Only few forms of informal learning are registered. There is no differentiation for most types of informal learning whether they were assessed as being useful for professional or for private purposes.</p>

3.1.14 Possibilities and Limits of an Independent Living and Health/
Möglichkeiten und Grenzen selbständiger Lebensführung (MUG I-IV)

Institution, URL	TNS Infratest Sozialforschung, München (http://www.tns-infratest.com/SoFo/Expertise/Hilfe_und_Pflegebedarf.asp)
Type of data	Occasional cross-sectional survey
Access to data	Data not available for scientific or public use
Sample and age range	MuG I + III: community dwelling individuals 18 years and older MuG II + IV: people living in care homes, 60 years and older
Time, waves and sample size	<ul style="list-style-type: none"> ▪ MuG I: Data collected from 1991-1993; sample size of 25,736 households and 2,950 individuals in need of care ▪ MuG II: Data collected from 1994-1996; sample size of 535 institutions and 4,464 residents ▪ MuG III: Data collected from 2002-2005; sample size of 25,095 households and 3,622 individuals in need of care ▪ MuG IV: Data collected from 2005-2007; sample size of 609 institutions and 4,229 residents
Language Issues	No information available
Coverage	The MuG I and the MuG III focus on the living situation of people in need of care living in private households. The cross-sectional surveys provide information on the type and degree of care needed, specific medical needs, support network, arrangements of help and care taking, professional help, aid supply, residential environment, care-specific housing facilities, socio-demographics, material resources and region. The MuG II and MuG IV focus on the living situation of people in need of care living in institutions. The nursing staff was interviewed about the living situation and characteristics of the institution. The studies provide information on the home residents regarding socio-demographics, mobility limitations, form and degree of care need, care situation, residential environment, social contacts. In relation to the institutions, the following information was gathered: type, size and type of operation, care and procedure concept, range of services, professional situation in regard to number of staff, inclusion of family members and volunteers.
Use of internationally harmonised standards	Instruments were in part standardised questions, scales and tests, e.g. measure on activities of daily living (ADL)/ instrumental activities of daily living (IADL) or cognitive impairment test (6CIT, Brooke and Bullock, 1999).

Strengths and weaknesses

The surveys provide a comprehensive picture of the structure and need for help and care. The MuG studies I and III focus on people in private households and the MuG studies II and IV provide representative data on people living in institutions in Germany. The MuG III also includes a small subsample of cognitively impaired persons, which provides a description of the specific situation of people with dementia and their needs and care arrangements. If participants were not able to take part, a family member or other proxy was interviewed. To be representative for people in need of care, people over the age of 70 were oversampled for MuG I and III.

A wide range of indicators allow an analysis of the potential and limitation of independent living in private households and institutions, however the data is not available for scientific use. If there is interest in further analysis, this is done by the data holder. Therefore, the potential of this data is not used.

The cross-sectional surveys focusing on private households were more likely to include people in need of help and care who were relatively independent and living on their own.

3.1.15 Sample of Insured Persons and their Insurance Accounts / Versicherungskontenstichprobe der DRV (VKSt)

Institution, URL	Research Data Centre of the German Pension Insurance (FDZ-RV)/ Forschungsdatenzentrum der Rentenversicherung (FDZ-RV) (http://forschung.deutsche-rentenversicherung.de/FdzPortalWeb/?ViewNavi=StartSeite)
Type of data	Longitudinal registry data
Access to data	Datasets are made available by the Research Data Centre. Scientific Use Files (SUF) are available only for recognised, independent, scientific institutions. Public Use Files (PUF) are available for teaching purposes. Remote Data Processing is available for registered data users with SPSS- and STATA-files (www.fernrechnen.de). On-site workplaces for guest scientists (more data with less reduced characteristics than SUFs). SUF available after signing a research contract.
Sample and age range	<ul style="list-style-type: none"> ▪ Sample: Insured persons aged 15 to 67 years ▪ SUF: only Germans living in Germany and aged 30 to 67 years
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 2002 has a sample of 57,832 (SUF). ▪ Wave 2004 has a sample of 58,611 (SUF). ▪ Wave 2005 has a sample of 59,457 (SUF). ▪ Wave 2006 has a sample of 60,304 (SUF). ▪ Wave 2007 has a sample of 60,821 (SUF). ▪ Wave 2008 has a sample of 61,410 (SUF). ▪ Wave 2009 has a sample of 61,894 (SUF). ▪ Wave 2010 has a sample of 62,705 (SUF).
Language issues	Data is available in German only.
Coverage	Information based on pension insurance accounts about: <ul style="list-style-type: none"> ▪ Socio-demographic items (age, sex, children born, profession and others) ▪ Insurance history - times of employment, unemployment, education, military and community service, illness, child-raising periods, self-employment subject to social insurance, non-professional long-term caring (since 1995), minor employment (since 1999) ▪ Entitlements from the pension insurance (earning points)
Use of internationally harmonised standards	No information provided.

Strengths and weaknesses

The Sample of Pension Insurance Accounts deals with pension entitlements of insured people. Detailed information on times relevant to pension insurance is available in the dataset. The dataset contains process-produced longitudinal data, so employment histories can be analysed without facing the usual problems of longitudinal surveys in social sciences – such as panel mortality or memory errors. The dataset contains more validated information on details of the employment history than respondents normally remember. The sample is very large, so that detailed analyses are possible. The panel has been built since 1983, so it contains a great deal of information on social change.

Information on topics other than occupation is mostly missing. There is only some information on education and qualification, but this is incomplete because these data are reported by employers voluntarily. Information on children born is only included for women, not for men. Households and couples cannot be identified. Data in this dataset are selective – periods of employment as civil servants or independent entrepreneurs are not recorded. Data for employment periods in minor jobs are only recorded if they were registered by the minor employed. There is information missing on occupation periods of people who immigrated to Germany or who moved abroad from Germany. That means that nearly all people in Germany have a pension insurance account, but many of these contain large gaps without information on the occupation. Unclear accounts are the reason for another type of missing data.

Data is not easy to handle as there is a lot of information in the dataset that cannot be analysed and interpreted without knowledge of the German pension law.

3.1.16 Sample Survey of Income and Expenditure/ Einkommens- und Verbrauchsstichprobe (EVS)

Institution, URL	Research Data Centre of the Federal Statistical Office and Research Data Centres of the Statistical Offices of the Federal States, (http://www.forschungsdatenzentrum.de)
Type of data	Cross-sectional survey data, collected every 5 years
Access to data	Dataset is available from the Research Data Centre. For scientific use, microdata of the EVS are available from the Research Data Centre as Scientific Use files (SUF) for scientists from Germany only for projects limited in content and time (3 years at the most). For remote data processing and for on-site workplaces data is also available for guest scientists. All these data is with costs and available following completion of an application and research contract.
Sample and age range	Survey is a household sample, so it has no age limits.
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 1962/63 with a sample size of 34,000 households. Only a public use file is available. ▪ Wave 2: Data collected in 1978. No information on sample size. ▪ Wave 3: Data collected in 1983. No information on sample size. ▪ Wave 4: Data collected in 1988. No information on sample size. ▪ Wave 5: Data collected in 1993. No information on sample size. ▪ Wave 6: Data collected in 1998 with a sample size of 62,150 households. ▪ Wave 7: Data collected in 2003 with a sample size of 59,713 households. ▪ Wave 8: Data collected in 2008 with a net sample size of 58,984 households. <p>For waves 2-8, scientific use files and on-site access are available.</p>
Language issues	Data is available in German only. English documentation is available.
Coverage	The EVS provides data on the composition of the household (age, year of birth, level of education etc.), household members' participation in professional life, consumer goods consumption, type and level of income, type and level of assets and debt of private households, wealth of private households, consumption spending of private households (equipment existing in household etc.), region and place of living
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ SEA 98 (Systematisches Verzeichnis der Einnahmen und Ausgaben der privaten Haushalte, Ausgabe 1998), according to COICOP (Classification of Individual Consumption by Purpose)

	<ul style="list-style-type: none"> ▪ ISCED-97 (International Standard Classification of Education) ▪ NUTS-08 (Nomenclature des unités territoriales statistiques)
Strengths and weaknesses	<p>The Sample Survey of Income and Expenditure is an official statistic survey describing the economic situation of households in Germany. It consists of a very large sample and records incomes in a differentiated way by a quota sample that is stratified by social groups. Accordingly, it provides representative data that are deeply structured and in high quality.</p> <p>Differentiated analyses are possible for nearly all household types, with the exception of people living in institutions. Households with a monthly net income of more than 18,000 Euros are not considered because the data would not be statistically reliable. Foreigners are not sampled representatively.</p>

3.1.17 Study of Health in Pomerania / Leben und Gesundheit in Pommern (SHIP)

Institution, URL	Institut für Community Medicine - SHIP-KEF (http://www.medizin.uni-greifswald.de/cm/fv/english/ship_en.html)
Type of data	Longitudinal survey of a specific cohort
Access to data	Data is available for scientific, non-profit use; however, data is primarily available for members and employees of the Community Medicine Network at the University of Greifswald and for their co-workers. Thus, obtaining the data is expensive. Signing a data distribution contract is required prior to obtaining the data. Furthermore, the planned project using the data has to be described comprehensively and is evaluated by a board, which holds meetings every month.
Sample and age range	Community dwelling persons aged 20-79 years (base sample)
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1, SHIP-0: Data was collected from 1997-2001 and had a sample size of 4,308 individuals. ▪ Wave 2, SHIP-1: Data was collected from 2002-2006 and had a sample size of 3,300 individuals. ▪ Wave 3, SHIP-2: Data was collected from 2008-2012 and had a sample size of approximately 1,700 individuals. ▪ Wave 4, SHIP-Trend-0: Data was collected from 2008-2011 and had a sample size of approximately 3,200 individuals.
Language issues	Website, documentation, data and questionnaires are available in German and English
Coverage	<p>The survey aims at investigating the complexity of health, thus comprehensive health data is assessed including an oral health examination, a medical examination, a health-related interview, and a health- and risk factor-related questionnaire.</p> <ul style="list-style-type: none"> ▪ The oral health examination includes the teeth, periodontium, oral mucosa, craniomandibular system, and prosthodontics. ▪ The medical examination includes blood pressure measurements, electrocardiography, echocardiography, carotid, thyroid and liver ultrasounds, neurological screening, blood and urine sampling. ▪ The computer-aided health-related interview includes cardiovascular symptoms, utilisation of medical services, health-related behaviours, and socioeconomic variables. ▪ The self-administered questionnaire comprises housing conditions, social network, work conditions, subjective well-being and individual consequences of German reunification.

	<ul style="list-style-type: none"> Health information for the population relevant to diseases under study is given particular attention (cardiovascular diseases, diabetes mellitus, liver and biliary tract diseases, neurological diseases, thyroid diseases, dental diseases, lung diseases, addiction and risk behaviour).
Use of internationally harmonised standards	Majority of instruments are standardised questions, scales, test and measurements.
Strengths and weaknesses	<p>The aim of SHIP is to examine the complex nature of health. Therefore extensive health data is available, which allows for an investigation of the prevalence and incidence of diseases and their risk factors. Data focuses on those diseases which are population relevant (cardiovascular diseases, diabetes mellitus, liver and biliary tract diseases, neurological diseases, thyroid diseases, dental diseases, lung diseases, addiction and risk behaviour). The survey enables researchers to study predictors, risk factors and underlying mechanisms, as well as complex interaction between those factors and living situations. Besides extensive subjective and objective health data (Biomarkers inclusive), a variety of socio-demographic and psycho-social factors are assessed which extend the analysis potential of the SHIP data. The follow-up of participants allows for an investigation of the progress of subclinical findings. Furthermore, health trends in the region can be compared with the SHIP-0 and the SHIP-Trend-0 data. Power of the data to carry out longitudinal analysis may be limited due to sample size in the follow-up surveys (SHIP-1 & SHIP-2). The potential to investigate health in old age is limited as SHIP baseline samples (SHIP-0 & SHIP-Trend-0) cover an age range of 18 to 79 years.</p>

3.1.18 *Survey on Private Usage of Information and Communication Technologies (ICT) / Erhebung über die private Nutzung von Informations- und Kommunikationstechnologien (IKT)*

Institution, URL	Research Data Centre of the Federal Statistical Office Research Data Centres of the Statistical Offices of the Federal States http://www.forschungsdatenzentrum.de
Type of data	Cross-sectional data
Access to data	Only on-site access (workplace in research data centre or remote data processing). Data use contract with fees.
Sample and age range	Quota sample, base: all private households at the main place of residence, persons aged 10 years and older
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 2002 (pilot study) with a sample size of 4,000 households. ▪ Wave 2: Data collected in 2003 (pilot study) with a sample size of 4,000 households ▪ Wave 3 (first dataset available): Data collected in 2004 (pilot study) with a sample size of 4,000 households. ▪ Wave 4: Data collected in 2005 (pilot study) with a sample size of 4,000 households. ▪ Wave 5: Data collected in 2006 with a sample size of 12,000 households. ▪ Wave 6: Data collected in 2007 with a sample size of 12,000 households. ▪ Wave 7: Data collected in 2008 with a sample size of 12,000 households. ▪ Wave 8: Data collected in 2009 with a sample size of 12,000 households. ▪ Wave 9: Data collected in 2010 with a sample size of 12,000 households. ▪ Wave 10: Data collected in 2011, with a sample size of 12,000 households. ▪ Wave 11: Data collected in 2012, with a sample size of 12,000 households.
Language issues	Data is available in German only.
Coverage	Study on dissemination of information and communication technologies (ICT) and on the use of the internet in private households. It also covers socio-economic and socio-demographic items, items on infrastructure of communication technology in private households, information on the way, frequency and purposes of the internet usage (e.g. E-government, E-commerce, E-learning), information on scruples and barriers to the

	use of new technologies (Source: Statistisches Bundesamt 2012. Quality Report on IKT 2012 and Fachserie 15, Reihe 4, Wirtschaftsrechnungen)
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ ISO-3166 (Classification of Country Codes) ▪ ISCED-97 (International Standard Classification of Education) ▪ ISCO-08 (International Standard Classification of Occupation)
Strengths and weaknesses	<p>The ICT-Survey records data on the dissemination of information and communication technologies (ICT) and on the use of the internet in private households. Among others, it provides information on the usage of ICT for educational activities and on attending computer training courses. The ICT-survey has a large sample. As it is conducted every year, the ICT-survey allows for trend analyses over a longer period. Data is harmonised between the EU-member states, so the results are directly comparable. Documentation and metadata in German are available via internet.</p> <p>The survey contains only few context variables, mainly socio-economic and socio-demographic items. There is no Scientific Use File, data can only be used by on-site access and remote data processing. Data and documentation are available in German only.</p>

3.1.19 Telephone Health Survey - German Health Update / Telefonische Gesundheitssurveys – Gesundheit in Deutschland aktuell (GEDA)

Institution, URL	Robert Koch Institute (RKI), Berlin (http://www.rki.de/DE/Content/Gesundheitsmonitoring/Studien/Geda/Geda_node.html).
Type of data	Regular cross-sectional survey
Access to data	Available for scientific, non-profit use after signing a data distribution contract, 90 Euros are charged for each data CD
Sample and age range	<ul style="list-style-type: none"> ▪ 18 years and older
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data for GesTel03 was collected in 2003 and had a sample size of 8,318. ▪ Wave 2: Data for GesTel04 was collected in 2004 and had a sample size of 7,341. ▪ Wave 3: Data for GesTel05 was collected in 2005 and had a sample size of 4,401. ▪ Wave 4: Data for GesTel06 was collected in 2006 and had a sample size of 5,600. ▪ Wave 5: Data for GEDA09 was collected in 2009 and had a sample size of 21,262. ▪ Wave 6: Data for GEDA10 was collected in 2010 and had a sample size of 22,050. ▪ Wave 7: Data for GEDA12 was collected in 2012 and had a sample size of approximately 26,000.
Language issues	Documentation (in parts) is available in German and English, while variables and value labels are available in German only. The homepage with all basic information (data access, etc.) is available in English as well. For GSTel03 and GEDA09 a questionnaire translation is available via http://www.euhsid.org/database.html
Coverage	In addition to a regular module, each cross-sectional survey addresses specific policy-relevant topics which change for each assessment. The surveys regularly cover: subjective health, health-related behaviour, e.g. physical exercise, diet, alcohol consumption, smoking, chronic diseases, injuries, health consequences and disabilities, health-related support and stress, mental health, socio-demographic characteristics such as age, gender, education, occupational status, migration background. The selection of the regular health module follows the European Health Survey (EHS). As specific topics, gastrointestinal diseases, organ donation and the extent to which interviewees make use of healthcare services were assessed in GEDA09. GEDA10 asked questions about injuries and the

	use of cancer screening. Measles and measles vaccination, care of family members and noise pollution were assessed in GEDA12.
Use of internationally harmonised standards	The selection of the regular health module follows the European Health Survey (EHS). Majority of instruments are standardised questions, scales, test and measurements. The measuring standards of the Robert Koch Institute comply with European and international recommendations.
Strengths and weaknesses	<p>The GEDA surveys are part of health monitoring by the Robert Koch Institute. The surveys cover basic health information at each assessment, which are complemented by specific policy-relevant topics (such as attitudes towards organ donation) that are changing. Therefore, one of the strengths of the GEDA surveys is that they enable the government to respond quickly and flexibly in the field of health policy because data is collected rapidly. The regular cross-sectional samples allow health trends to be analysed over time. Furthermore, the basic health module that is collected in each survey follows the European Health Survey, which allows for comparison in health trends with other European countries. Due to the large number of individuals taking part each year, the GEDA provides reliable and valuable data on health in Germany. As this survey is supposed to be representative for the residential population over the age of 18 in Germany, there is no specific focus on people aged 50 years and older, and the health questions do not cover all important aspects of health in old age.</p> <p>Because of the cross-sectional sampling, it is not possible to analyse individual health changes and underlying mechanisms. Another weakness of the GEDA survey is that they cannot be used for specific analysis focusing on foreigners or people with migration backgrounds as they are underrepresented in the survey.</p>

3.1.20 Time Use Survey / Erhebung zur Zeitverwendung

Institution, URL	Research Data Center of the Federal Statistical Office (http://www.forschungsdatenzentrum.de)
Type of data	Cross-sectional survey data
Access to data	Scientific Use Files (SUF) available by Research Data Centre and only for scientific use, SUF only for scientists in Germany, for some detailed data only on-site workplaces, CAMPUS-Files for teaching
Sample and age range	<ul style="list-style-type: none"> ▪ Wave 1: 12 years and older ▪ Wave 2: 10 years and older
Time, waves and sample size	<ul style="list-style-type: none"> ▪ Wave 1: Data collected in 1991/92 with a sample size of 6,845 households, 19,708 individuals. ▪ Wave 2: Data collected in 2001/02 with a sample size of 5,160 households, 13,758 individuals. ▪ Wave 3: Data is currently being collected (2012/13).
Language issues	Data is available in German only.
Coverage	<p>Individual and household information from interviews and individual time use data from diaries filled in over 3 randomly selected days during field time.</p> <p>Detailed study for time use. Description of the 24-hour course of the day in 10 minute intervals (main activities and simultaneous activities, persons who were present, locations and means of transport), socio-demographic and socio-economic items for households and household-members, support given and received, volunteering, learning, infrastructure of place of residence, subjective assessment of time use</p> <p>Topics in the field of engagement:</p> <ul style="list-style-type: none"> ▪ Personal interview: Field of engagement/volunteering in the last 12 months, expenditure of time per month for engagement/volunteering ▪ Activities (diary): Voluntary activities, informal help for other households
Use of internationally harmonised standards	<ul style="list-style-type: none"> ▪ NUTS classification (Nomenclature of territorial units for statistics): NUTS 1 ▪ ISCO 1988 (International Standard Classification of Occupation, 1988) ▪ ISCED(International Standard Classification of Education)
Strengths and weaknesses	The Time Use Survey provides unique diary data on the issue of time use in daily life. Data are collected in a large sample, so analyses for different social groups and household types can be conducted. Data are

very detailed, many kinds of activities are registered – e. g. housework, child care, civic engagement, neighbourhood assistance, education, media use and many others. In the field of volunteering, activities are registered both in the diary and in the personal interview. The personal interview registers the fields of volunteering in the last 12 months and the expenditure of time per month. The diaries show the exact time expenditure for voluntary activities and informal help for other households.

Data of the Time Use Survey allow trend analyses between the waves 1991/92 and 2001/02 (and the following waves), as well as European comparisons. A special strength of the survey is its large sample size. There is multi-stage quality control of all data.

There are only few context variables besides socio-demographic items and items on employment. More complex causal analyses on the influence of various factors on time use are not possible.

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