

Poverty Measures: From Production to Use

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Declaration

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Abstract

This thesis uses the analogy between poverty measures and products to explore how poverty measures are designed, produced, distributed and used by different communities. Three historical case studies are analysed with this product approach: Charles Booth's poverty surveys of London developed in the late nineteenth century, Mollie Orshansky's poverty thresholds in the USA in the 1960s and two international measures of the Human Development Index (HDI) and the dollar-a-day in the late twentieth century.

The product approach to statistical measurements offers a number of advantages. It shows how poverty measures do not provide numbers only, but packages of complementary products. Booth produced a set of innovations from his survey: numbers, maps and causal analyses; Orshansky a system for statistical and administrative use; and the UNDP a platform for human development – all three facilitating action to reduce poverty. Sometimes the products compete strongly in the market, as the UNDP's HDI and World Bank's dollar-a-day have done. Sometimes they help to establish new modes of social science, as Booth's products did. Sometimes the original designs prove resistant to innovation as Orshansky's thresholds did.

More generally, this product approach places the numbers in their historical context. It demonstrates the importance of both the producers and the users in what happens to poverty measurements; it looks in particular at the way in which such measures are influenced by the interests of the different user groups and their political environment. It shows how co-production between the producers and users of poverty measures, or the lack thereof, influences the trust given to numbers.

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Abbreviations

CEPAL	Economic Commission for Latin America and the Caribbean
HDI	Human Development Index
HDR	Human Development Report
HPI	Human Poverty Index
ILO	International Labour Organization
MDG	Millennium Development Goals
NHDR	National Human Development Reports
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
WDR	World Development Report
WHO	World Health Organisation

1 Poverty measures in context

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1.1 Power of poverty measures

What is the power of numbers? Numerical information is everywhere and has been increasingly used to represent reality, act upon it and create impact. Quantification aims to capture phenomena in numbers and attribute a figure even to such multifaceted phenomena as poverty. When thinking about, analysing, or acting against poverty, numbers are used as a first line of reference.¹ Thus, this thesis investigates the measurement of poverty in its context.

Poverty has made life a struggle for millions of people around the world. International campaigns have raised the awareness of and sought to reduce poverty, such as the ‘Make poverty history’² and ‘End Poverty’³ campaigns as part of the United Nations Millennium Goals.⁴ The World Bank has described its activities as ‘working for a world free of poverty.’⁵ National governments, those of developing and developed countries alike, have aimed to reduce their poverty rates.⁶ Non-Governmental Organisations (NGOs) and charity organisations have worked towards alleviating it. These efforts and corresponding resource allocations have been focused on improving the lives of all individuals living in poverty.

Understanding and acting upon poverty is influenced by what is known about poverty. Within the broader poverty literature, poverty measures play an essential role. The information on poverty has increasingly become quantitative in character. Poverty measures have therefore become more important in the way that we see poverty. The state of poverty, the proportion, or the development of poverty have been expressed quantitatively, increasingly so, furthermore, as the variety of measures grows.

Poverty measures have had a significant impact according to their functions as academic tools; as academic inputs to new models; as ways to focus attention on

¹ ‘The facts: 4 million children - one in three - are currently living in poverty in the UK, one of the highest rates in the industrialised world. This is a shocking figure given the wealth of our nation.’ These are the first lines on the website from End Child Poverty, which is an action group with as members ‘more than 150 organisations from civic society. It is one example of numbers being referred to as a first indicator of the severity of poverty. *End Child Poverty Website* (Accessed 16 September 2011).

² *Make Poverty History Website* (Accessed 16 September 2011).

³ *End Poverty Website* (Accessed 16 September 2011).

⁴ *United Nations Millennium Development Goals Website* (Accessed 16 September 2011).

⁵ *World Bank Website* (Accessed 16 September 2011). ‘At the World Bank we have made the ‘world’s challenge-to reduce global poverty-our challenge.’ *World Bank Website. About Us* (Accessed 16 September 2011).

⁶ In the UK, the focus has been on child poverty and The Child Poverty Act received Royal Assent on 25th March 2010. *End Child Poverty Website. Child Poverty Act* (Accessed 16 September 2011).

poverty and to understand it; to define it; and to fight against it. In the political domain poverty measures are used for resource allocation, targeting certain groups or locations, as well as designing policy programmes. Poverty measures direct decisions on welfare assistance, medical or international aid, amongst others; and policy programmes are directed at helping the poor. Poverty measures are essential and affect people's lives.

However, despite their importance, poverty measures, their contexts and the way in which we use them are not clearly understood. They are taken as black boxes, objective facts detached from their stake holders or the conflicting interests from different users. This thesis opens up the black boxes and contributes to the literature on poverty measurement, to the literature on poverty and policy and to the understanding of the role of numbers in general, by answering the following questions. Where do poverty measures come from? How have they travelled from production to use? How have they gained importance and created impact? How have they been used? What functions do they have?

Because poverty measures and their functions cannot be separated from their social and historical context, the method most appropriate to address these questions is case study research.⁷ In-depth investigation of the context, the people involved and the process of quantification are necessary to understand the functions of numbers. Case study research enables us to analyse the different dimensions and interrelated processes of the cases. The research process of this thesis has evolved according to the iterative process between theory and sources of conceptualising and analysis, such as Bates promotes in *Analytical narratives*.⁸ Moreover, this thesis project has been part of the 'How Well Do Facts Travel?' research project and as such has used and benefited from the case study approach employed in, and findings of, the project.⁹

To investigate the cases, this thesis develops and brings to bear a new perspective to three case studies of poverty measures: Booth's poverty measurement, the US poverty thresholds and the competition between the Human Development

⁷ Robert K. Yin. *Case Study Research: Design and Methods*, 3rd ed., *Applied Social Research Methods Series* (Thousand Oaks, California: Sage Publications, 2003).

⁸ Robert H. Bates. *Analytic Narratives* (Princeton, N.J.: Princeton University Press, 1998), *ibid.*

⁹ Peter Howlett and Mary S. Morgan. eds., *How Well Do Facts Travel? The Dissemination of Reliable Knowledge* (Cambridge; New York: Cambridge University Press, 2011). The website gives additional information on and outcomes of the research project, that took place between 2004 and 2009. 'How Well Do "Facts" Travel?' *Project Website at Economic History Department at London School of Economics* (Accessed 15 September 2011).

Index and ‘dollar-a-day’ measure. Chapter 2 develops a new way of looking at statistics and quantitative information in general - the product approach.¹⁰ The analogy with products is used to understand the processes and sociology of the production of statistics, as well as the less understood distribution and use of poverty measures. The cases suggest that the actual production of numbers is not the only decisive factor for the product and its use. As a matter of fact, as this research project points out, poverty measures can travel well and create impact, notwithstanding a contested theoretical basis.¹¹ The numbers and their packages, the interaction between the producers and users and also the distribution channels employed, affect the way in which poverty measures are used and what impact they have. In sum, the product approach allows for a broad perspective which includes the production, the distribution and the user domains of poverty measures to understand what causes poverty measures to travel from production to use and how they have created impact.

The different case studies were chosen to provide answers to the questions posed. Chapter 3 considers the case of Charles Booth’s poverty measurement in London in the late 19th century. Charles Booth was the first to thoroughly and systematically investigate poverty in the capital. For seventeen years he worked on the inquiry¹² into the *Life and Labour of the People in London*, which was published in three editions.¹³ The aim was to get quantified information on poverty, ‘facts.’¹⁴ The result was disturbing: 30.7 per cent of people in London were classified as poor.¹⁵ The product approach is used to analyse Booth’s poverty measurement and assess the variety of innovations he brought to the market.

Chapter 4 examines the case of the US poverty thresholds, located in the United States of America in the 1960s. Mollie Orshansky at the Social Security Administration initiated the measures in 1963. Despite the theoretical improvements

¹⁰ To be sure, this is not intended as an argument that statistics are or should be capitalised or commercialised, or that the analogy should be fully matching. Chapter 2 elaborates on the positive and negative aspects of the analogy and why using this approach is useful to address the poverty measures.

¹¹ See the case studies on the US thresholds in Chapter 4 and HDI in Chapter 5.

¹² Charles Booth. *Life and Labour of the People in London*, 17 vols., vol. 17, *Final Volume: Notes on Social Influences and Conclusion* (London: Macmillan, 1902-3). p. 200.

¹³ Charles Booth. *Life and Labour of the People in London*, 2 vols. (London: Macmillan, 1889-1892);

Charles Booth. *Life and Labour of the People in London*, 9 vols. (London: Macmillan, 1892-1897);

Charles Booth. *Life and Labour of the People in London*, 17 vols. (London: Macmillan, 1902-3).

¹⁴ Charles Booth. *Life and Labour of the People in London*, 17 vols., vol. 1 (London: Macmillan, 1902-3). p. 6.

¹⁵ Charles Booth. *Life and Labour of the People in London*, 17 vols., vol. 2: streets & population classified, *First Series: Poverty* (London: Macmillan, 1902-3). pp. 20-21.

since the time of production, they still form the official American poverty statistic. This case study shows a poverty measure which has been widely used despite not having been developed fully because of the complexity in the user domain. On the one hand, the use of the poverty measures expanded drastically after their production, from an internal research tool to the official thresholds of poverty in the country. On the other, because of the interests and developments in the user domain, related to President Johnson's 'War on Poverty,' the producer lost control over the product, which started to live a life of its own. Despite the improvements which became possible both theoretically and practically, the same (technically inferior) product still remains the official poverty measure to this day, due to its key role for governmental user groups. This chapter illustrates a case where the use of poverty thresholds is demand led and where the different users and their interests have determined the (lack of) development of the product.

Chapter 5 discusses the Human Development Index (HDI) and its competition with the dollar-a-day measure, both global measures initiated in the 1990s. The United Nations Development Programme (UNDP) introduced the HDI in 1990 to compete with the GDP growth measure and act as an advocacy tool. As an aggregate measure, it combines information on standards of living, longevity and education to present an index number of human development. The product approach analyses the importance of the distribution and marketing of the HDI. The UNDP has distinguished itself from other statistical agencies by emphasising the distribution channels while creating its own impact in academic, public and political domains, using the measure to compete with the dollar-a-day measure. The latter measure was introduced by the World Bank in 1990 and has since become a main reference in poverty activism, including the Millennium Development Goals. In contrast to the HDI, the dollar-a-day has been less clearly focused on its users nor was it produced with any clear policy purpose. This case study demonstrates the competition between the two institutions and their measures.

The three case studies provide a rich and layered approach to poverty measures. First, they were produced in different periods, around the 1890s, 1960s and 1990s, respectively and thus span over a hundred years. Second, they were located in different areas, having London, the USA and the world as their respective geographic spaces, thus ranging from local city level and national level to the global level. Third, the measures have different characters, as poverty line, thresholds and

international index, respectively. Their institutional embedding was also different: an unattached individual, a government department and two international organisations, respectively.

The thesis offers contributions in a variety of ways. It develops an additional way of investigating social statistics: that of the product approach. Each of the cases provides individual findings. Together, the case studies provide a perspective on how poverty measures travelled over time and space and the comparisons between the cases offer insights on the trust, politics and co-construction of statistics and society. The thesis puts the numbers in context, to better understand poverty measures and their implications.

The structure of this thesis is as follows. The remainder of this Chapter 1 assesses how the literature informs and can be related to numbers and their impact. In Chapter 2 I develop my product approach, a conceptual framework to investigate statistics, poverty measures in particular. This approach uses the analogy between poverty measures and other products. In the following chapters this product approach is applied to the case studies: Chapter 3 brings out the innovation in Booth's poverty measurement, Chapter 4 emphasises the user domain of the US thresholds and Chapter 5 investigates the competition between the HDI and the dollar-a-day measures. Chapter 6 draws conclusions from the richness of the cases, bringing out the layers, comparisons and contrasts between them to offer findings which go beyond the individual case studies towards an understanding of the power of poverty numbers.

1.2 Poverty measures and academic literature

There is no one body of literature within one discipline by which my questions can be informed. The fields of knowledge on which they build and to which they contribute are different. Poverty measurement, to begin with, can be seen as part of the interest in quantification from authors working on the history and philosophy of science. Second, the role of statistics and politics has been investigated by historians of statistics. Social studies of science can be viewed as a third field to which my research relates. Fourth, the findings of the research project *How Well Do Facts Travel?* have contributed to this thesis. Fifth, my work can be placed within the poverty literature which in turn forms its own large multidisciplinary field. I discuss

four books in more depth than the rest to assess which points help to analyse poverty measures and also find the points where this thesis moves the literature on.

From an historical angle, Ted Porter's work has been very influential and useful as a starting point for my questions. It is discussed first because it deals with the origin and role of numbers in science and society. Alain Desrosières' work puts statistics in a political context and is discussed next. To move on to the user side, the social studies of science perspective will be discussed via the work of Nelly Oudshoorn and Trevor Pinch. Howlett and Morgan offer views on how well facts travel, which forms a bridge between these other approaches in the way they investigate the move between producer and user domains. This thesis primarily complements this literature and I show how the product approach contributes as a new conceptual framework in which to analyse poverty measures, which will then be employed in the case studies to answer the questions and contribute to the understanding of poverty measures and their impact.

Finally, the questions can be related to the wider poverty literature which can be separated into four strands. First, there is the theoretical literature, which involves technical and philosophical issues. Second, there is the poverty measurement literature, with practitioners in statistical bureaus, census offices and government, who deal with the actual measurement, data collection and production of poverty numbers. Third, there is the poverty literature which addresses poverty on a macro level: investigating poverty, trends and influences on an international or abstract level. Last, there is the literature zooming in to the micro level and engaging with the variety of poverty programmes and its practicalities and outcomes. This wider literature provides the background, not the foreground for the cases and the main argument in the thesis.

1.3 Trust in Numbers

Quantitative methods have gained an increasingly important role in the scientific, professional and social spheres. Because numbers have such an impact, a better understanding of the processes of quantification is essential in interpreting and using numbers. However, the academic literature did not take up the topic of quantification

and its context until the 1980s.¹⁶ A welcome contribution was found in Ted Porter's book *Trust in Numbers: The pursuit of objectivity in science and public life*.¹⁷ He analyses quantification in its historical context. The book has gained authoritative status for those interested in the role of numbers in a wide variety of contexts. The impressive number of 1348 scholarly citations¹⁸ demonstrates the success of Porter's work, which also won the Ludwik Fleck Prize of the Society for the Social Studies of Science in 1997.¹⁹ For my thesis this book is important in several ways. It gives the contexts of different numbers and focuses on the reasons why trust has been given or connected to numbers. Moreover, it offers an account by which to understand the role and impact of numbers. It also raises questions about the way in which the analysis applies to poverty measures. Furthermore, it has inspired questions over what this trust in numbers implies, encourages and provokes, in terms of their impact in use. I go on to discuss how the relevant arguments by Porter relate to the questions of this thesis.

In *Trust in Numbers* Porter poses the question: how are we to account for the prestige and power of quantitative methods in the modern world?²⁰ He emphasises the appeal of quantification in business, government and social research, which in turn helps us to understand the role of quantification in the sciences. He offers historical analyses of the processes and applications of quantification outside as well as inside the academic world to demonstrate, first, how numbers are made valid, second, how they relate to the political and bureaucratic context and, third, how they feed back from the public domain into the academic context.

Porter structures his argument as follows. The answer to the question of the prestige and power of numbers finds its base in the power of numbers, graphs and formulas to function as strategies of communication.²¹ This communication depends on the community and social identity of the researchers, rather than on laws of nature, or the completeness or accuracy of the description of the external world. What makes the quantification special in communication is that it is a 'technology of

¹⁶ Ian Hacking. *The Taming of Chance, Ideas in Context* (Cambridge: Cambridge University Press, 1990). Gerd Gigerenzer et al. *The Empire of Chance: How Probability Changed Science and Everyday Life, Ideas in Context* (Cambridge: Cambridge University Press, 1989).

¹⁷ Theodore M. Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, N.J: Princeton University Press, 1995).

¹⁸ *Scholar.Google Website* (Accessed 16 September 2011).

¹⁹ *Society for Social Studies of Science Website. Ludwik Fleck Prize* (Accessed 16 September 2011).

²⁰ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. p. viii.

²¹ *Ibid.* p. viii.

distance.’ Quantification relies on mathematics which is highly structured and rule-bound and requires discipline from its users. Moreover, quantification offers a rigour and uniformity which are absent from informal settings. Quantities are more easily transportable than qualitative concepts and the need for intimate knowledge and personal trust is therefore diminished. For these reasons Porter argues that quantification is a technology of distance²² which can cross the boundaries of locality and community. Quantification helps to produce knowledge which is independent of the particular people who make it, which can be seen as objective knowledge.²³

Objectivity has been a hallmark of science and therefore quantitative methods have been increasingly used in the physical and social sciences. Porter extends the scope and argues that this objective feature of quantitative methods is used to deal with distance and distrust, which are present not only in the scientific context but also in the bureaucratic and political context. He argues that quantification in the latter context has in fact further advanced the use of quantification in the academic context. Most elaborate in terms of historical material is his use of micro histories to establish his evidence.²⁴ He offers a comparison between nineteenth-century British actuaries and twentieth-century American accountants and also a comparison between nineteenth-century French and twentieth-century American engineers, using cost-benefit analyses.²⁵ Porter argues that, due to their application in public life, accountancy and cost-benefit analyses were brought into the academic domain,²⁶ where they further increased the power of quantitative methods. His argument is further deepened by his suggestion that quantification has increased to satisfy the search for objectivity. This search has become more important because there is a growing distrust, felt more intensely in new or weak communities, or in open, democratic areas.

Porter’s book brings out the view that quantification has become more prevalent and important in society. My thesis uses his account of the source of the trust in numbers and has been inspired by his work to ask what is it about this trust that has enabled numbers to travel, be used and have an impact. To see the relevance

²² Ibid. p. ix.

²³ Ibid. pp. viii-ix.

²⁴ Ibid. p. x.

²⁵ Ibid. Chapters 5-7 pp. 85-189.

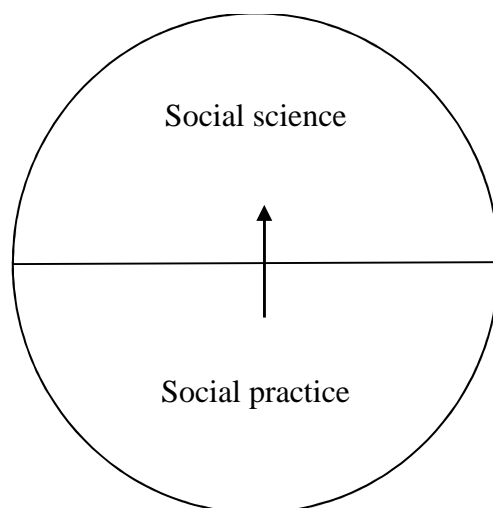
²⁶ Ibid. p. 199.

to poverty measures and the questions of this thesis, I next relate some of Porter's points to poverty measures and the product approach of this thesis.

1.3.1 Quantification in the social domain

To answer where the trust in numbers comes from, Porter discusses in detail in his micro histories of the practices of quantification²⁷ the complexity of the cultural, bureaucratic and political context in which quantification takes place. The cases reveal that professional groups develop quantitative methods as aids when they want to communicate and make decisions. Porter's cases convincingly demonstrate that the increase in use of numbers comes from this development in practice, which then moves within the social domain, from social practice to social science (illustrated in Figure 1-1). Porter argues that quantitative methods move from social practice and are taken up and formalised within the academic domain.²⁸

Figure 1-1 Quantification in the social domain, according to Porter



Most academic poverty studies view poverty measures in isolation and assess poverty and its elements within the analysis, as if existing only within the abstract realm of scientific domains. Porter's analysis demonstrates that quantification cannot be located within the scientific domain alone. This thesis therefore builds on this notion and views poverty measures in their context. Analysing poverty measures traces the numbers to their origins and demonstrates that they cannot be located in any single scientific discipline. The product approach (see Chapter 2) investigates the

²⁷ Ibid. Chapters 5-7 pp. 85-189.

²⁸ Ibid. p. 199.

poverty numbers in production, in use and in the intermediate domains. The analysis is not restricted by viewing statistics as happening within a certain bounded scientific discipline. Rather, the approach investigates the initiation and origin of the statistics, which take place in the production phase. Scientific as well as non-scientific domains provide the location of the production as well as its use.

First, the production is not exclusively located within certain scientific disciplines. The producers in terms of function and position are not necessarily connected to one scientific domain. Sometimes the producers are not even part of academia to begin with (Booth's poverty investigation, Chapter 3), or have two roles, in both academia and government (US poverty thresholds, Chapter 4), or are established academics who perform in international institutions (HDI and the World Bank dollar-a-day, Chapter 5). As a rule, statistical bureaus and agencies have an integrated role within both, being part of both the state and science, connected through academics to academic research and through institutional links to government and political processes. This means that poverty measures cannot be easily placed in either academia or government, because they are produced, distributed and used in both, and beyond them. Moreover, even individual research agencies rely on public data, which in turn is provided by the government. The government can be seen to have an advantage in terms of collecting and producing data such as national production, as well as citizen counts and income information.

More generally, statistics rarely originate in one discrete domain. The process of collecting data and the social interaction required often involves effort and activity from both the scientific and state approaches.²⁹ On the one hand, the statistical approach relies in terms of the sample taking and generalisations on scientific advances in conceptualisation and the developments of statistical reasoning. On the other, data collection on income, for example, requires a government as the authority, via tax or census activities. Other agencies will not have the same access to data as the government does. In practice, the data collection for the production of numbers often relies on an interaction between academic and state domains.

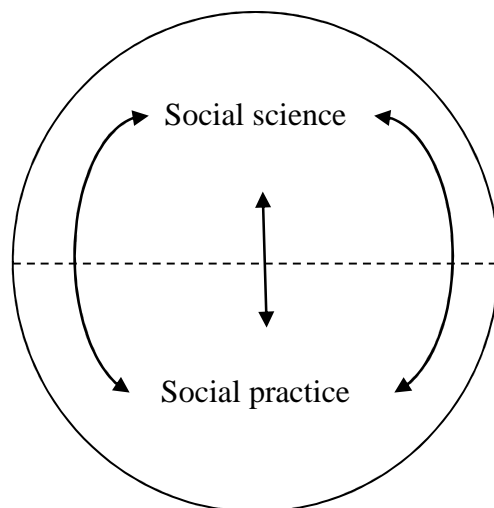
In addition, for social facts the data collection cannot take place in isolation within academia, because social facts by definition require information about social processes which cannot be easily brought into any type of scientific laboratory. The

²⁹ The international measures of HDI and dollar-a-day illustrate this in Chapter 5.

public and other institutions are involved. For poverty measures, this involves household surveys and establishing the notion of what poverty is.

Second, the product approach also allows us to analyse the user side. These are the consumers of the product and therefore it is important to identify the consumer groups as well as their aims, so as to link supply to demand. The use is not limited to scientific use made in the production domain. That is, even though some scientific communities can be obvious users of the numbers which they produce, they are not the only ones. The product approach takes into account that numbers can take on a life of their own after their production and can end up in different fields, as is the case with social statistics. Poverty numbers can be used for a variety of reasons which are not merely analytical. The scientific domain and the political domain operate with different criteria in using numbers. Thus, both production and use in different domains demonstrate another way in which the product approach broadens Porter's analysis.

Moreover, numbers have always had a role in society, even before scientists embraced numerical approaches for their work methods and evidence. Porter uses case studies of business, government and social science using quantification to illustrate. For the investigation of poverty measures, a similar approach is taken by tracing different case studies and investigating three specific measures in depth. The uses by government and social science can be seen in all the cases of poverty measures. To build on Porter's account, this thesis adds the dimension of poverty and policy work and practice, to augment the understanding of quantification and the way in which this informs the role of numbers in society. In social domain quantification, social science and social practice are not clearly separated as the dashed line illustrates, but the quantification in both is interrelated, as the various arrows show in Figure 1-2.

Figure 1-2 Quantification in the social domain in this thesis

1.3.2 Quantification in the public domain

Porter also distinguishes between science and public life. Yet as his book demonstrates, the topic of quantification crosses the boundaries of the disciplines and involves the public domain. The argument of this thesis is that quantification actually takes place not in one of these domains, from which it then moves to another, but that the quantification is actually operating in the space which belongs to all three: scientific and social investigation and the state together, that is, the area which belongs to all three domains (see Figure 1-3). This is because the way in which numbers are produced relies on scientific, practical and administrative methods. Even when quantifying for particular public purposes, the actors who quantify concepts often are tied to universities. Porter's description of the cost-benefit analysis shows that the engineers who use the approach for decision-making purposes are part of a university as well as involved with project planning. As Porter describes, the economic calculation is always an interaction between quantitative methods and administrative routines, within a mathematical culture.³⁰ The engineers of the French *Corps des Ponts et Chaussées*, for example, were part of the agency within the French administration but were simultaneously connected to the *École Polytechnique*.³¹ Therefore he shows that quantification cannot be located in either the scientific or the public domain.

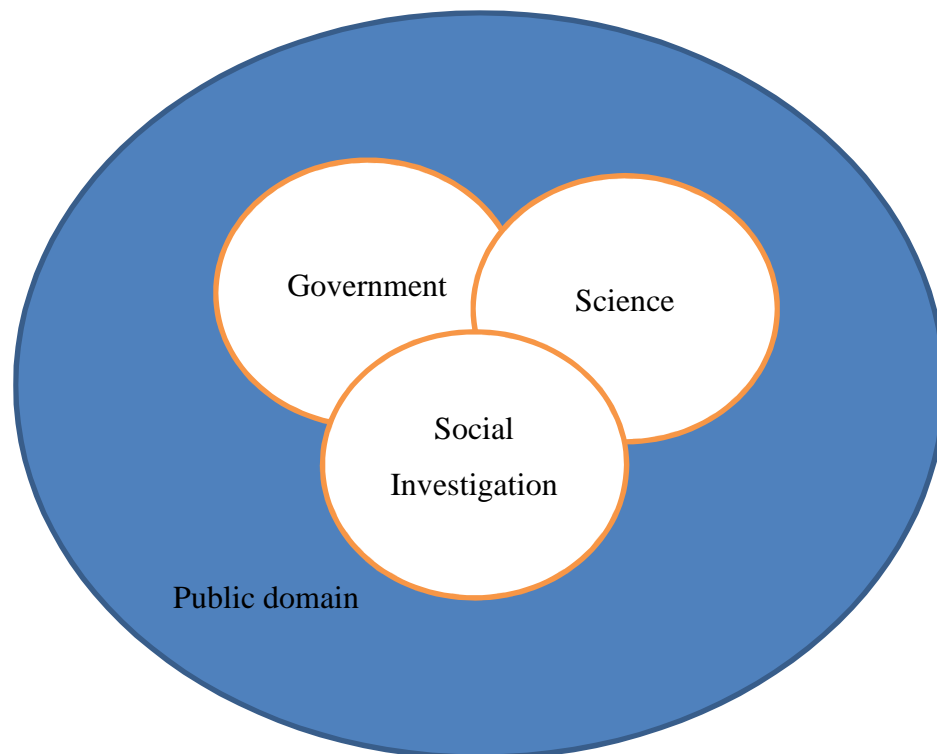
To build on this, not only Porter's examples, but, due to their nature, almost all social statistics originate and function in the space which is both scientific and

³⁰ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. p. 114.

³¹ *Ibid.* p. 117.

public, if these domains can be separated at all. First, the production of numbers cannot be separated in science and in the public view. Statistics often originate within a governmental setting, where governments collect information about the state via census bureaus or statistical offices. ‘Statistics’ originally meant information about the state which is not limited to administrative practice and includes the wider governmental and political realm. This information is collected or assembled by actors who are educated and often still operating in a scientific discipline. Hence, not only are scientific methods used and scientific insights incorporated within statistics, but also academics are simultaneously working within science and within government or other quantifying agencies. The quantification processes then evolve within the space which belongs both to science and to public life. Moreover, the use of the numbers is also both scientific and public. The statistical information gathered about societies and economies are used for economic modelling and as inputs for experiments, as well as government or project planning involving forecasts and policy design. In addition, individuals use the numbers for their investments and economic spending. In sum, both production and use of numbers take place in the space which belongs to both domains, a notion which is more useful to understanding poverty measures and their impact.

Figure 1-3 Quantification in the public domain



Moreover, the increase in the prestige and power of numbers cannot be seen as a result of the move between these domains. The increase in the use of quantitative methods may however result from the increased applicability of numbers, which grows with each use. In turn, the application of quantitative methods grows when more concepts get quantified, because the numbers can subsequently be used for more and more purposes, growing from simple bookkeeping to scientific modelling, forecasting, project planning and personal behaviour. This is because the quantified structure relies on numerical input, which means that when more numbers become available, the mathematical and statistical applications grow exponentially. The quantitative language allows for the investigation of relations and comparison between variables, which become possible and grow as more new becomes available. Therefore, the methods of investigating both nature and social processes have become increasingly quantitative and the space in which numbers can play a role has enlarged.

1.3.3 Impersonal and impartial numbers

Porter argues that quantification is a technology of distance, which makes numbers appear as objective knowledge, which in turn is why they can be used as a strategy against distrust.³² The technology of distance is related to the way that the language of mathematics offers structure and rules, rigour and uniformity.³³ Porter argues that these elements help produce a kind of knowledge that is seen as independent of the people who make it, which he takes as his definition of objectivity.³⁴ Numbers and quantification have gained the trust of society, he argues, because of this impartial appearance.

Even though numbers may be transportable and uniform and may travel without their producers, as in Porter's cases, my cases demonstrate that numbers, like all facts that travel, do not do so independently of the people who make them or the rest of the package they are part of.³⁵ The producers of numbers determine the outcome, even though the outcome may appear neutral. People may *believe* that numbers are neutral, but this is a different assumption from the one that they *are* impersonal and impartial and independent from their producers. However, this belief,

³² Ibid. p. ix.

³³ Ibid. p. ix.

³⁴ Ibid. p. ix.

³⁵ Howlett and Morgan. eds., *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*.

in combination with other factors such as their usefulness, does determine the use of numbers and their impact.

With the product approach, this thesis illustrates the importance of the people involved in the production of numbers, to the supply of the material for their production, as well as for the eventual presentation of the numbers. First, the quantification procedure entails decisions which rely on judgment and assumptions and therefore in many different ways relies on the people who quantify. To start with, decisions are necessary in the process of defining the concepts, as well as the way that the different elements are combined. This is the case for all numbers, even if they seem as straightforward as counting the people living in a country. To illustrate, this exercise involves defining who counts as an inhabitant, how to take into account people who are away or those who are staying for a limited period. Obviously, the assumptions and decisions to be taken for more complex concepts only increase. Porter's cases of cost-benefit analyses are more complex since they do take into account not only current variables, or those from the past, that is to say, those about which information can be gathered because the outcomes are known. Cost-benefit analyses project future costs and benefits which depend on many issues still unknown and also on the complex issue of intangibles being quantified. Porter explores the space for judgment in quantification³⁶ and this thesis demonstrates this for cases of poverty measures.

Second, it is not only the producers who determine the outcome; there can actually be a variety of actors involved in any quantification and the supply of the raw material which forms the basis of the eventual numbers. The raw material can be gathered by the producers, or can be supplied by a different group of people. For example, one group of researchers can take household surveys to produce information on poverty while another can bring together and quantify the information. Another layer of actors can be added when (part of) the research is outsourced, or originates from another agency, as when statistical agencies providing part of the input.

Third, there are people involved in the final layout and presentation of the numbers. Any number and quantity can be presented in a variety of ways, for example, in percentages, proportions and absolute numbers, in tables or graphs, or in

³⁶ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. p. 179.

comparison over time or in comparison to other regions. The choice of the presentation determines the message being transmitted. The presentation in percentages, absolute numbers, or graphs derived from the numbers can all highlight different parts of the information.

In addition, the trust given to numbers also depends on the time in which the quantification occurs. While in the nineteenth century the appeal of positivism had yielded a stronger belief in numbers,³⁷ by the twentieth century the increase in quantification and abundance of indicators available had challenged ‘blind’ trust in numbers. While people have become more knowledgeable about the way that numbers come about and on what assumptions and raw data they are based, the awareness has grown that quantification is not a guarantee for objectivity or truth. Moreover, there has been an overwhelming increase in the supply of numbers, even for the same concepts. This has forced people to probe and select measures and numbers rather accepting them as the one and only fact. This has resulted in scepticism and awareness of the ‘manipulation of numbers,’ which challenge the belief that numbers are completely objective together with the trust granted to numbers as definite answers. The cases in this thesis demonstrate this. Booth’s measurement, for example, took place in the era of positivism, in which numbers were perceived as facts,³⁸ whereas a hundred years later with the HDI, there was more scepticism about the fact-like properties of numbers, even though the quantitative format was still trusted and seen as more useful than narrative forms of information.³⁹

1.3.4 Source of trust

Porter’s analysis of numbers connected to trust leads to the question of what it is that people trust. Numbers alone do not seem to be enough to provide trust. While numbers can provide answers, they do so in a channelled way. That is, the quantification procedure determines the direction of thinking and therefore the answer. When the procedure is not trusted, the answer cannot be trusted either, but in practice this does not seem to be the deciding factor for using such numbers.

Porter suggests that the processes and sources of trust do not all point to numbers. It may be impossible to locate the trust in one specific part, rather than a set

³⁷ Ibid. pp. 19-20.

³⁸ See Chapter 3.

³⁹ See Chapter 5.

of factors combined. Porter notes that trust cannot be separated from hierarchies and institutions.⁴⁰ Trust can be placed in the expertise or prestige of the producers, the numerical format in itself and the structures, rules, procedures and standards connected to quantified methods. For example, Porter's work on American cost-benefit analysis⁴¹ points out the preference for rules, procedures and standards, which are facilitated by, but not the same as, numerical outcomes. Numbers facilitate procedural and rule-based thinking, but the numerical format is not the decisive characteristic connected to trust.

This thesis builds on this and allows for users to value poverty measures for a variety of reasons, which includes the one that numbers are trusted more than alternative sources of poverty information. The product approach allows for further analysis of the needs of the users, which then connects back to the production domain.

In sum, this thesis uses Porter's way of addressing the important topic of quantification and illustrating his approach richly with historical and comparative material. This thesis contributes by using Porter's arguments for the investigation of poverty measures and offers the product approach and case studies to help understand the way that numbers function and the impact and practices of quantification.

1.4 The Politics of Large Numbers

The second book that this thesis builds on is from the literature on statistics, which is informative on their emergence and the role which they have played in society. In *The Politics of Large Numbers: a History of Statistical Reasoning*⁴² Alain Desrosières brings together the histories of important yet previously disjointed fields of statistical reasoning and politics. Both developments, of statistical reasoning and of political institutions, influence the way that statistics function in their domains of production and use. Therefore the book is an important foundation for further understanding of the production and the use of social facts and numerical facts in

⁴⁰ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. p. 214.

⁴¹ Ibid. pp. 148-189.

⁴² Alain Desrosières. *The Politics of Large Numbers. A History of Statistical Reasoning*, trans. Camille Naish (Cambridge, Massachusetts: Harvard University Press, 1998). Originally published as Alain Desrosières. *La Politique Des Grands Nombres: Histoire De La Raison Statistique* (Paris: Editions La Découverte, 1993).

particular. This section describes the issues from the book which are relevant for the analysis of poverty measures.

Desrosières uses a wide range of topics, countries and periods to address statistical reasoning and politics. He argues that statistics play an important role in two domains with authority: science and the state. He sets out to analyse the reasoning in both domains. Phenomena such as unemployment, inflation, growth and poverty have been approached quantitatively and made into social facts largely by the use of statistics, producing numbers which both create and refer to the phenomena. The numbers have a political aspect, which is the topic Desrosières combines with the theory of the statistics underlying these numbers. Thus he explains on the one hand how statistical reasoning has developed, in terms of statistical abstraction and theory development, and on the other the way that the state has used statistics.

Desrosières' main theme is the paradox of the double role of statistics: both of *being* social facts and *referring to* them. This distinction is an important contribution of Desrosières' book and helps us to analyse the debates about the validity of statistics and the way in which they relate to their subjects. The chapters do not build up to an answer, nor does the concluding chapter provide an answer to questions of how the conflicting roles coexist, but he offers a variety of new ways of looking at numbers and their roles. Even though poverty measures do not use statistical reasoning according to statistical theory including chance and probability, they can also be seen as both *being* the social facts of poverty and *referring to* them and as such they benefit from building on Desrosières' ideas.

1.4.1 Interrelated production and institutional settings

Desrosières structured his book to cover three themes separately: the different functions of statistics, the histories of the traditions in terms of statistical institutions and the development of statistical theory.

While he sets out to analyse the relationship between statistics and the political state, the chapters describe the development of reasoning and the political use of statistics separately. The present thesis, however, brings these two fields together by examining the case studies from production to use. The product approach views statistics from their inception to their use and therefore traces which parts of the theory are relevant to the statistical outcome within the production process. The

institutional setting is relevant for both their production and use and therefore is incorporated within the descriptions and analyses of production, distribution and use. The producers, their positions and their thinking can be part of academia and the state simultaneously. Moreover, viewing the aims of initiative takers and producers allows for the discussion to incorporate both the fields of statistical reasoning and the institutional setting and how they are related, instead of viewing them separately. Thus, although Desrosières' aim is to analyse the relationship, the book seems to offer a variety of relationships and functions (see Section 1.4.2) which are described separately rather than in relation to each other. The production approach applied to the cases on poverty measures integrates the statistical reasoning from its institutional set-up, since both interact within the production domain.

1.4.2 Different roles, functions and connotations of statistics

Throughout his book Desrosières suggests different contrasting features of statistics. To clarify the different roles, functions and meanings of statistics and to allow them to be applied to poverty measures, I list the different contrasts and functions as follows.

1. *The paradox of statistics simultaneously being the referent and reality.*⁴³
Poverty numbers not only reflect poverty but, by processes of making conventions and acting with them, they also become poverty facts and are used as products in their own right.
2. *Statistics meaning both method and numerical results.*⁴⁴ Even though poverty measures do not relate directly to statistical methods, poverty measures do provide the poverty line or index according to which poverty is measured, but thereby also establish the poverty numbers.
3. *Attitudes towards statistics as real or made, demonstrating positions of being realist or objectivist versus relativist or historicist.*⁴⁵ This relates to the issue of the ways in which poverty numbers are trusted and used.
4. *Statistics being both the scientific and political language to describe 'what is' and 'what we must do.'*⁴⁶ This is the distinction between statistics as description and science (*there is*) versus prescription and action (*we must*). To

⁴³ Desrosières. *The Politics of Large Numbers. A History of Statistical Reasoning*. pp.1 and 337.

⁴⁴ Ibid. p. 326.

⁴⁵ Ibid. pp. 335-6.

⁴⁶ Ibid. pp. 335-7.

establish poverty measures and numbers to determine ‘what is poverty’ does not indicate directly ‘what we must do about poverty.’

5. *Statistics providing the change in perspective from the singularity of individual actions to summaries and comparisons.*⁴⁷ For poverty measures this is an important point relating to the levels of analysis and political dynamics,⁴⁸ since the number changes the perspective from the individual to the aggregate poverty number for a region or country.

Thus, Desrosières identifies different functions, roles and meanings of statistics which inform the relationship between them and politics. Two of the roles can be identified in his description of the emergence of unemployment statistics;⁴⁹ they were derived from reports which were not quantified or combined in national measures⁵⁰ to become ‘New Objects.’⁵¹ Hereby the statistics both referred to and established unemployment as a fact, as it had never clearly been defined before⁵² (point one in the list). Desrosières also describes how groups of the Republican administration, statisticians and economists⁵³ debated the unemployment statistics and the complex relationship between *what unemployment is* and *what to do* about it (point four in the list). As with unemployment statistics establishing ‘the unemployed,’ poverty measures can be seen to produce ‘the poor’ as an entity and there are similar issues with what poverty is and what to do about it. This thesis relates the different functions and characteristics of statistics on the list to poverty measures and I return to this list in Chapter 6.⁵⁴

1.4.3 Quantification as offering space for debate

In the concluding chapter Desrosières introduces a new view: that statistics create a public space for debate,⁵⁵ because statistics provide a common language for comparison and reference. The system of statistics then becomes the arena in which the entities exist and can be disputed and the system is dynamic.⁵⁶ Based on this view

⁴⁷ Ibid. p. 326.

⁴⁸ See Chapter 6.

⁴⁹ Desrosières. *The Politics of Large Numbers. A History of Statistical Reasoning.* pp.199-209.

⁵⁰ Ibid. p.200.

⁵¹ Ibid. p. 199.

⁵² Ibid. p.201.

⁵³ Ibid. p. 203.

⁵⁴ See Section 6.5.

⁵⁵ Desrosières. *The Politics of Large Numbers. A History of Statistical Reasoning.* p. 326.

⁵⁶ Ibid. p. 332.

I can see poverty measures as offering a system of debate in politics and the public domain, which the use of poverty measures demonstrates.

However, Desrosières' notion of politics seems mostly to refer to administration in the sense of statistics for bookkeeping, not necessarily the way that political debate always takes place or that statistics always influence decision making processes and policy. This is related to the issue of 'action,'⁵⁷ which Desrosières notes; however, he does not make clear how statistics function for decision making or relate the numerical results or methods to action. He does not elaborate on the way in which statistics allow or urge action. He discusses how the statistical notions of probability and chance can function for judges,⁵⁸ yet the title 'the politics of large numbers' should have allowed for more discussion of the political processes of decisions in terms of resource allocation or other policy processes in which statistics play a role. This can be related to the French connotation of *gouvernement*, which includes the state as a regime, a government and an administration. The differences in authority and the way that ministries give direction is culturally determined and the case studies on poverty measures show the relevant interaction between the state and the poverty measures amenable to politics.

1.5 Co-construction of Users and Technology

Social studies of science form a third source of literature relevant to this thesis. It was influenced by the important work of Latour and Woolgar, who in their *Laboratory Life*⁵⁹ open up the black box of the construction of scientific facts. They explored the context and investigated the process of constructing facts. The main legacy for the new science studies emerging from this approach is our ability to study processes in detail and investigate practices, including different stakeholders. This approach is adopted in this thesis as shown by the way that the production of poverty facts is investigated, opening up the world behind the number, which is not a merely 'scientific,' logical or objective process. There are different stakeholders who interact under the influence of their different interests.

Within science and technology studies there has been more interest recently in the use as well as the production of numbers, mostly connected to technology

⁵⁷ Ibid. p. 247.

⁵⁸ Ibid. pp. 45-66.

⁵⁹ Bruno Latour, Steve Woolgar, and Jonas Salk. *Laboratory Life: The Construction of Scientific Facts* (Princeton, N.J.: Princeton University Press, 1986 [1979]).

studies. User innovation and co-constructions by science and technology have become key words.⁶⁰ Even though this literature relates to the user side, it has not so far been related to numbers. However, influenced by Desrosières' work, a recent volume argues that society and the statistics which measure and describe it are reciprocally constructed.⁶¹ These contributions have been informative for my approach and understanding of poverty measures.

1.5.1 Importance of users

For my questions it is important to understand the users of numbers, an area which has not yet been investigated. Nevertheless, some of the studies of the users of technology can offer some parallels with it. Oudshoorn and Pinch bring together twelve papers which reflect on users of technology in their book: *How users matter. The co-construction of users and technology*.⁶² The papers draw attention to the often neglected user side by identifying and stating the relevance of the users and non-users in the case of technology. The focus is on 'how users consume, modify, domesticate, design, reconfigure and resist technologies.'⁶³ Technologies are studied in their 'context of use:' that is, the society and the web of other artefacts within which technologies are always embedded.⁶⁴ In addition, the book focuses on what technologies do to users, related to the questions of defining users and who defines them.⁶⁵ The argument is that users and technology are co-constructed: technologies play a role in constructing the identities of the users and the users play a role in constructing the technology.

The book is structured in three parts which bring out different perspectives on users. The first part groups papers on the 'users and non-users as active agents in the de-stabilisation of technologies.'⁶⁶ The papers describe the users of home computer systems, the telephone and electrification, the automobile and the internet. Rather than viewing the progress of the technology, the papers shed light on the reasons for

⁶⁰ 'Co-construction is a concept used mainly in the technology branch of STS [science and technology Studies]' Ann Rudinow Saetnan, Heidi Mork Lomell, and Svein Hammer. *The Mutual Construction of Statistics and Society, Routledge Advances in Research Methods* (New York: Routledge, 2011). p. 7.

⁶¹ This is the main argument of *ibid.* p. 1. The book is the outcome of the workshop on Statistics as a boundary object between science and the state that I attended in Norway, 14-16 May 2007.

⁶² Nelly Oudshoorn and Trevor Pinch. *How Users Matter: The Co-Construction of Users and Technologies* (Cambridge, Mass.: MIT Press, 2003).

⁶³ *Ibid.* p. 1.

⁶⁴ *Ibid.* p. 2.

⁶⁵ *Ibid.* p. 2.

⁶⁶ *Ibid.* pp. 29-100.

resistance and non-use which have not been taken into account before. The second part is titled ‘multiple spokespersons: states and social movements as representatives of users.’⁶⁷ The cases consider stakeholders within the realm of health and biomedicine who are involved in decision making processes. The users are not a homogeneous group and representing them through organising them in categories can introduce a bias. The third part is on ‘multiplicity in locations: configuring the user during the design, the testing and the selling of technologies.’⁶⁸ The papers describe the commercial processes of shavers, milk cartons and snacks, clinical trials and an electronic music synthesizer. The case studies demonstrate the process through which the production and marketing of new products are closely interrelated with views on users that may not be correct.

The book makes an important contribution because it highlights the user side and distinguishes the variety and significance of users of technologies. Rather than viewing user groups as single entities, the different papers point out the heterogeneity of the users. In turn, this affects the way that they interact with technologies and allows for the co-construction of users and technology.

Moreover, the three parts contribute to the way that users are viewed. First, their impact can be seen in the (de)stabilisation of technologies themselves. Second, while the users as a group can be important for expressing views, they are embedded in a wider matrix where the social and political contexts matter. Third, rather than assuming that producers are the dominant actors within the production of technology, they show that users have an important impact on the production and marketing phase of technologies. These three views on users offer new perspectives on the various ways in which the users interact with the producers.

1.5.2 From users of technology to poverty measures

However, while the book points out the heterogeneity of the users and the interaction with the producers, it takes no account of the variety of uses to which the technology is put. This is in contrast to what the introduction promised: that the book would discuss ‘whatever users do with technology.’⁶⁹ While technologies can be given different uses, the use that is mostly elaborated on is to shape users’ identity.

⁶⁷ Ibid. pp. 101-190.

⁶⁸ Ibid. pp. 191-270.

⁶⁹ Ibid. p. 1.

The identifying function can be seen as one use of technology, but it is not the main or only one. The book does not evaluate the different uses of technology other than and in relationship to identifying the user. Hence, as Desrosières' book argues regarding statistics, although this book brings forward the view that the technologies mostly serve the purpose of identification, building an identity is not the purpose of creating a technology. In fact, one could argue that the authors actually do most of the identification through their analyses in the book, instead of showing the users identifying themselves in their use of the technology. The main aims of technology and the consequences deserve more attention. In addition, while the papers shift the attention to different users from the ones which the producers take into account, they do not clarify which users use what technology for what. Moreover, the contributions remain inconclusive about the agency gained by the users from technologies.

While technologies are clearly different from statistics, the insights from the book are relevant to my question of how poverty measures travel between their production and use. Whereas Porter and Desrosières focus on the origins of statistics, and thus on the production domain, Oudshoorn and Pinch shift the focus to the users and the co-construction of users and technology. Similarly, the product approach considers the users of poverty measures to be important. The cases in the present thesis therefore investigate not only the interaction of the users of poverty measures with the production of them but also identify the different users and show how they employ the measures. The message of their book, that users matter, thus also applies to statistics. This thesis shows that the users of poverty measures can be heterogeneous and that they play a role during and after their production (for example, user innovation can be seen in the case of the academic users of the HDI in contributing to the amendments in its design – see Chapter 5). The product approach allows the three points from their book to be applied to poverty measures: users can (de)stabilise statistical processes, they are embedded within a wider network in which social and political contexts matter and the impact of the users on the production and marketing phase of technologies should not be neglected.

Moreover, the product approach builds on this book by taking into account the uses of poverty products, the way in which they can be different for different users, and the effect of agency. That is, the product approach allows the identification of a variety of different users of poverty measures, which are not limited to the actual producers who initiated the measurement, or the users whom

they had in mind. As can be seen in the following chapters, they include statisticians, politicians, lobbyists, international organisations, academics and local journalists. In turn, the way in which poverty measures are used is not limited to the way that they help people establish their identity. The uses differ according to the users and they vary from identifying the poor, creating a fact, being a device for bookkeeping or an advocacy tool, bringing or highlighting a story, gathering attention and being a gateway to the underlying information to the use of poverty measures as academic research tools.

1.6 How Well Do Facts Travel?

While Porter and Desrosières address the issues of quantification and the political sides of statistics, and Oudshoorn and Pinch stress the importance of the users, these books do not elaborate on how the numbers actually get to the users. A recent contribution to understanding this move between production and use is found in Peter Howlett and Mary S. Morgan's *How well do facts travel?*⁷⁰ They bring together a variety of case studies in which researchers from different disciplines engaged with the question: 'how well do facts travel?', for which facts were taken as 'shared pieces of knowledge that hold the qualities of being autonomous, short, specific and reliable.'⁷¹ The case studies were able to identify various features that enabled facts to travel well and four features, as illustrated by the examples below, will be helpful in investigating how poverty measures and numbers travel. First, 'good company' can allow facts to travel well. Second, facts can travel well depending on their character and practical usefulness, even if those who work in their original domain now consider the facts to be flawed. Third, for facts to travel well there needs to be a demand for them, although the eventual users may interpret the 'facts' differently from how they were integrated in the production domain. Fourth, facts travelling well and fruitfully can travel well beyond their original production domain.

Morgan argues that facts travel well when they have good company: labels, packaging, vehicles and chaperones.⁷² Illustrating the importance of chaperones,

⁷⁰ Howlett and Morgan. eds., *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*. The website gives additional information on and outcomes of the research project, that took place between 2004 and 2009. 'How Well Do "Facts" Travel?' *Project Website at Economic History Department at London School of Economics* (Accessed 15 September 2011).

⁷¹ Mary S. Morgan. 'Travelling Facts,' in *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*, ed. Peter Howlett and Mary S. Morgan (Cambridge ; New York: Cambridge University Press, 2011). p.8.

⁷² *Ibid.* pp. 26-30.

David Haycock investigated the remarkable ‘fact’ that Thomas Parr, born in 1483, had lived for 152 years.⁷³ Haycock’s research shows that, before it was considered a ‘false fact,’ the fact had travelled well both in space and time, and across disciplines of knowledge.⁷⁴ As reasons for this Haycock argues for the importance of the ‘intellectual context, those taken to be reliable witnesses, complementary evidence, and willingness by both professional classes and the general public to accept the truth of those facts based on evidences and testimonies.’⁷⁵ Three chaperones in the role of respected and prominent ‘witnesses’ facilitated the fact to travel well: Sir Francis Bacon, who was a ‘highly respected philosopher and former Chancellor of England,’⁷⁶ Thomas Howard, the fourteenth earl of Arundel and Earl Marshall of England⁷⁷ and the royal physician Dr. William Harvey.⁷⁸ All three were seen as reliable witnesses to the fact and offered good company for its travel.

For poverty measures chaperones can be recognised in their producers or distributors as well as the users who champion the measure. For example, the case on the HDI in Chapter 5 will relate the success of the HDI to the reputation of the producers who served as its chaperones.

Morgan argues that facts travelling well also depend on their character: their attributes, characteristics and functions.⁷⁹ For example, Sarah J. Whatmore and Catharina Landström analyse ‘Manning’s n ,’ a parameter to calculate discharge for uniform water flow in open channels.⁸⁰ Their study shows that the parameter has been criticised in scientific realm, yet found its way to be re-packaged as a working tool. More than two hundred years after Manning published on the flow of water, Manning’s n has become automated within software programs useful for modellers and practising engineers.⁸¹ ‘[T]he effectiveness of n (...) rested less in the mobilisation of roughness as an accepted fact than as a working tool in the

⁷³ David Boyd Haycock. ‘The Fact of Life and Death: A Case of Exceptional Longevity’ in *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*, ed. P. Howlett and M. S. Morgan (Cambridge; New York: Cambridge University Press, 2011), pp. 403-428.

⁷⁴ Ibid. p. 424.

⁷⁵ Ibid. p. 423.

⁷⁶ Ibid. p. 411.

⁷⁷ Ibid. p. 403.

⁷⁸ Ibid. p. 411.

⁷⁹ Morgan. ‘Travelling Facts.’ pp. 33-35.

⁸⁰ Whatmore, Sarah J. and Landström, Catharina. ‘Manning’s N – Putting Roughness to Work,’ in *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*, ed. P. Howlett and M. S. Morgan (Cambridge; New York: Cambridge University Press, 2011), pp.111-135. p.111.

⁸¹ Ibid. pp. 124-133.

production of knowledge about flood risk.’⁸² Thus, despite scientific views of Manning’s *n* being simplistic, it obtained new users and uses. ‘Despite recent academic challenges to the validity of *n*, it remains undisturbed as a cornerstone of the working practices of engineering consultants that inform the policy and management of flood risk in the UK.’⁸³

This example can be related to poverty measures in the way that they also can be criticised on their scientific merits but can be packaged in different ways for use and that their functions can change according to their usefulness to different user groups. The case of Orshansky’s thresholds in Chapter 4 will demonstrate how they became used within governmental system as a tool despite the validity of the make-up of the thresholds being disputed.

Morgan argues that facts travel well when they travel with integrity, thus that they maintain intact, and that they travel well when they travel fruitfully, that is, that when they travel far and wide, in terms of time, and of geographical and disciplinary space, to find new users and uses.⁸⁴ For this to happen, ‘[d]emand is critical.’⁸⁵ For example, Lambert Schneider investigates how ancient Greek forms travelled in American Nineteenth century architecture. This was not a continuous flow of transmission: ‘On the contrary, the specific forms of classical Greek Doric and Ionic columns and capitals had been totally forgotten for eighteen centuries!’⁸⁶ Rather, this case shows that demand in America for architectural forms that represented classical ideals brought Greek forms into American architecture. Contemporary attitudes and preferences led entrepreneurs, architects and craftsmen to use Greek forms.⁸⁷ These Greek forms were far from being true to ancient Greece: they were transformed to suit American building practices and tastes.⁸⁸ Thus, demand mattered for the facts to travel and there were new uses and users of the facts.

These notions of fruitfulness and demand are important for poverty measures as well. The case of Orshansky’s thresholds (see Chapter 4) will show that demand

⁸² Ibid. p. 117.

⁸³ Ibid. p. 111.

⁸⁴ Morgan. ‘Travelling Facts.’ p.12.

⁸⁵ Morgan. ‘Travelling Facts.’ p.18.

⁸⁶ Schneider, Lambert. ‘A Journey Through Times and Cultures? Ancient Greek Forms in American Nineteenth-Century Architecture,’ in *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*, ed. P. Howlett and M. S. Morgan (Cambridge; New York: Cambridge University Press, 2011), pp.72-110. p. 104.

⁸⁷ Ibid. p. 105.

⁸⁸ Ibid. p. 83.

made her poverty measures travel quickly and widely, and in doing so they would obtain different uses than originally envisioned. The focus on the user side is also an important feature of the product approach as it asks how poverty measures find different users with different aims for use.

As an example of facts travelling well and far outside their domain of production to policy implications, Ed Ramsden investigates how facts on crowded rats travelled from the laboratory to the realms of social scientists, planners, and architects.⁸⁹ Ramsden shows the animal ecologist and psychologist John B. Calhoun investigated the effects of crowding in rodent experimentation. The findings did not stay in their production domain, but travelled to be interpreted and related to human behaviour and psychology, for which Calhoun made a ‘direct connection between the ecology of animal populations and urban environments.’⁹⁰ The experiments further found their way to human crowding experiments using student dormitories⁹¹ and beyond to finding applications in architectural and planners designs.⁹² Interestingly, these travels were not because the initial findings were undisputed, or accepted within its production domain. Also, they travelled best not via Calhoun’s original publications but via the work of others.⁹³

These insights can be informative for the travels of poverty measures too, as they can be seen to be distributed from their domain of production to find different users in other areas such as policy. For example, the case of Booth’s poverty measurement (Chapter 3) will illustrate how the initial question of how many Londoners were poor yielded a package of products that influenced the perception of poverty and policy. Moreover, the work of Booth and his research team influenced the emerging fields of social science.

In sum, these notions of company, character, demand, and fruitfulness are insightful for the study of poverty measures. However, as the cases show, there are different notions of facts involved. For poverty measures it leads to the question of what the fact is. These ideas will be further explored in Chapter 2 where the product

⁸⁹ Ramsden, Edmund. ‘Travelling Facts About Crowded Rats: Rodent Experimentation and the Human Sciences,’ in *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*, ed. P. Howlett and M. S. Morgan (Cambridge; New York: Cambridge University Press, 2011), pp.223-251. p. 223.

⁹⁰ *Ibid.* p. 230.

⁹¹ *Ibid.* pp. 237-243.

⁹² *Ibid.* p. 245.

⁹³ *Ibid.* p. 246.

approach is developed, where it will be seen that there are different kind of products that travel and that the poverty measure is a separate product from poverty numbers.

To conclude this section on the four contributions, Porter and Desrosières open up the perspective on statistics to include the social and political context, whereas Oudshoorn and Pinch offer insights into the user side, and Howlett and Morgan offer insights into how facts travel well. They are essential to the journey of poverty measures between the domains of production and use. While Porter and Desrosières enlarged the view from product design to its embeddedness within the production domain, they did not view statistics as products. The present thesis therefore contributes to this literature by introducing and developing an integrated approach to statistics in the product approach that illustrates the production, distribution and usage of poverty measures.

1.7 Relation to four strands of poverty literature

In addition to the four books discussed above, this thesis relates to the four strands of poverty literature. Even though this thesis is not about the broad trends of poverty and its literature, the research in the individual cases and also the overall contribution of understanding poverty measures aims to contribute to the poverty literature.

Poverty is multifaceted and varied and so is its literature, which makes the way that we view poverty over time difficult to characterise. This thesis offers a way to view the temporal dimension through the focus on measurement, which acts as a tool and a way to relate to poverty literature. One aspect is that poverty scholars have increased in numbers and in fields. In Booth's era, at the end of the 19th century,⁹⁴ those analysing poverty in the UK were an identifiable group of individuals. Booth could analyse and measure poverty while being connected to the private and public sectors as well as government and academia. In contrast, at the beginning of the 21th century there is no unified group that works on poverty, but instead a division of labour of those working *with the poor* and the larger and more fragmented group of people thinking and working *on poverty*, providing a varied, scattered body of literature.

Poverty measures reflect and relate to the poverty literature in four ways.

First, they appear in the theoretical poverty literature which includes philosophical questions on what poverty is, as well as technical questions on how to

⁹⁴ See Chapter 3.

measure it. The question of how to measure poverty or income distribution has been well documented. Amongst others, Sir Tony Atkinson's has become known for his work on the economics of income distribution and poverty.⁹⁵ He developed an alternative to the widely used GINI coefficient to measure income inequality, an alternative which in turn has become known under his name, the Atkinson Index and he worked on poverty measurement.⁹⁶ Amartya Sen, who would later become involved with the HDI, is another of the many academics who have proposed measurements of poverty.⁹⁷ The reason for this fertility, for the abundance of alternative measures, is that poverty is a multifaceted concept which encompasses, among other things, issues related to inequality and development. Many of these measures are indices and much of the technical debate, much of the difference between different measures, relates to what should be included in the index and how to weight the different elements.⁹⁸

The distinction between absolute and relative poverty measures is another philosophical and technical question. Peter Townsend has become well-known for his novel approach, which distinguishes between absolute poverty measures and relative measures⁹⁹ and for his broader work on poverty.¹⁰⁰ Within Europe most countries use relative measures to identify the poor of their population, with 60% of median national income taken as a poverty line in countries such as the UK and the Netherlands, although France has recently considered moving back to an absolute measure. Another concept is 'subjective poverty,' which was pioneered by Bernard van Praag and his colleagues at Leiden University.¹⁰¹ Connected to this group were Aldi Hagenaars and Klaas de Vos who continued to investigate the definition and measurement of poverty.¹⁰² An application of the subjective notion of poverty can be

⁹⁵ Anthony B. Atkinson. *The Economics of Inequality*. Oxford : Clarendon Press, 1975; Anthony B. Atkinson. 'On the Measurement of Poverty,' *Econometrica* 55, no. 4 (1987).

⁹⁶ Anthony B. Atkinson. 'On the Measurement of Inequality,' *Journal of Economic Theory* 2, (September 1970), pp. 244-263.

⁹⁷ Amartya Sen. 'Poverty: An Ordinal Approach to Measurement,' *Econometrica* 44, no. 2 (1976).

⁹⁸ See the case study of the HDI Chapter 5.

⁹⁹ Peter Townsend. *Poverty in the United Kingdom: A Survey of Household Resources and Standards of Living* (Harmondsworth: Penguin, 1979).

¹⁰⁰ Amongst others Peter Townsend and Michael Harrington Center for Democratic Values and Social Change. *The International Analysis of Poverty* (Hemel Hempstead: Harvester, 1993). Peter Townsend and David Gordon. *World Poverty: New Policies to Defeat an Old Enemy* (Bristol: Policy Press, 2002).

¹⁰¹ Theo Goedhart et al. 'The Poverty Line: Concept and Measurement,' *The Journal of Human Resources* 12, no. 4 (1977).

¹⁰² Aldi Hagenaars and Klaas de Vos. 'The Definition and Measurement of Poverty,' *The Journal of Human Resources* 23, no. 2 (1988).

seen in the World Bank's project *Voices of the Poor*,¹⁰³ which is a contrast to the usual quantitative and aggregate of The World Bank and its use of the dollar-a-day poverty measure.¹⁰⁴

These different approaches to poverty offer a variety of ways to define and measure it. The poverty line allows us to distinguish between those who are poor and those who are not while the poverty gap offers a way to establish how far off a certain household is from the poverty line. Of the case studies below, Booth and the US and World Bank use absolute poverty lines, while the HDI is an index aimed to represent development as opposed to poverty.¹⁰⁵

This thesis is about poverty measures but its aim is not to suggest ways to improve existing poverty measures or to compare them. Rather, the main aim is to put them into context to demonstrate that the work done in the theoretical domain is embedded within a larger, messier context in which different interests and dynamics determine the outcomes of which measures are used and what impact they create. At the same time, the cases demonstrate the production process of the measures, which include the theoretical basis and reasoning behind the definition and measurement of poverty.

Second, part of this larger context is the practice of poverty measurement. Poverty measurement scholars and practitioners focus on measuring poverty and on those producing poverty data and numbers.¹⁰⁶ This latter is not primarily an academic group or set of studies, for poverty measurement is mostly connected and embedded within the state, census activities, statistical bureaus and government departments. The information is more usually applied and limited to the country and regions to which the reports and data collection refer. The data sources are the national

¹⁰³ The World Bank collected more than 60,000 voices of the poor to understand poverty from the perspective of the poor themselves. Three books were published in addition to the information available on the *World Bank Website*. *Voices of the Poor* (Accessed 16 September 2011). Deepa Narayan et al. *Voices of the Poor: Can Anyone Hear Us?* (New York, N.Y: Oxford University Press for the World Bank, 2000). Deepa Narayan et al. *Voices of the Poor: Crying out for Change* (New York, N.Y: Oxford University Press for the World Bank, 2000). Deepa Narayan and Patti Petesch. *Voices of the Poor: From Many Lands*. (New York, N.Y: Oxford University Press for the World Bank, 2002).

¹⁰⁴ See Chapter 6.

¹⁰⁵ The UNDP developed human poverty indices HPI-1 and HPI-2 for developed and selected high-income OECD countries respectively. *United Nations Development Programme Website: The Human Poverty Index* (Accessed 16 September 2011).

¹⁰⁶ Margo J. Anderson and Stephen E. Fienberg. *Who Counts? The Politics of Census-Taking in Contemporary America* (New York: Russell Sage Foundation, 1999). Patricia Cline Cohen. *A Calculating People: The Spread of Numeracy in Early America* (Chicago; London: University of Chicago Press, 1982).

statistical bureaus which register poverty through their census and data collection. This thesis relates to these cases in so far as they use and create data, in addition to, or within, governmental or organisational settings. For example, Booth created the poverty numbers himself, while the US data were created using the census data and the HDI and dollar-a-day use as raw material the data supplied by statistical bureaus.

Third, the macro-level poverty literature takes the poverty definition and measurements as a black box; it uses them to assess overall trends in poverty and relates poverty to economic growth, market interventions, international trade and globalisation and development. This is a larger body of literature than can be found in the disciplines of economics and development. The debates include the impact of globalisation on poverty¹⁰⁷ and also the poverty trends and literature offered by the World Bank.¹⁰⁸ In addition, popular economic literature relates to poverty.¹⁰⁹ The case studies in the present thesis open up the context and content of poverty measurement, which the macro-level approach often takes for granted. Therefore it adds depth to the understanding of poverty and its causes.

Fourth, the micro-level poverty work engages with poverty programmes and implementation. This is more focused on the localised problems and projects on poverty. They may be on child poverty in the UK or poverty in African rural areas. The practitioners involved include NGOs, governments and charity workers. The focus is more about poverty 'in the field' and the attention is not so much on national data as on individual areas or households in poverty. Poverty programmes and practicalities are the focus, including second-best outcomes of well-intended programmes which may have different outcomes in practice. Moreover, this is where the auditing and target setting are mentioned at the same time as evidence based policy. Best practices on poverty programmes are sought, as well as a specific situational analysis of the causes of poverty which may be local or more specific according to what national or analytical information on poverty can provide.¹¹⁰

¹⁰⁷ David Dollar and Aart Kraay. 'Trade, Growth, and Poverty,' *The Economic Journal* 114 (February) (2004).

¹⁰⁸ Paul Collier and David Dollar. 'Aid Allocation and Poverty Reduction,' *European Economic Review* 46, no. 8 (2002).

¹⁰⁹ David S. Landes. *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor* (New York: W.W. Norton, 1999). Jeffrey Sachs. *The End of Poverty: Economic Possibilities for Our Time* (New York: Penguin Press, 2005).

¹¹⁰ M. B. Katz. *The Undeserving Poor: From the War on Poverty to the War on Welfare* (New York: Pantheon, 1989). Daniel P. Moynihan. *Maximum Feasible Misunderstanding: Community Action in the War on Poverty*, Clarke A. Sanford Lectures on Local Government and Community Life (New York: Free Press, 1969).

The cases in this thesis demonstrate how the poverty measures travel after their production, including the policy context which is messier than the models may have been prepared for. Even though the thesis does not directly investigate the effectiveness of the programmes implemented, it does suggest the role and use of some poverty measures and numbers.

1.8 Perennial debates in the measurement of social issues

Building on the literature described in Sections 1.3-1.6, rather than on the wider literature discussed in Section 1.7, this thesis develops the product approach¹¹¹ according to which the case studies¹¹² will be analysed. The product approach is applied to poverty cases to analyse poverty measures and numbers in the domain where they play a role. It offers new insights into why certain numbers have impact or how measures fail to change because arguments in the debate are misaligned when trying to find agreement in operation between the different levels.¹¹³ In these cases of poverty measures and numbers, various arguments are seen to occur again and again. Such arguments can be put forward not only about poverty measures, but about any social issue and its measurement.

1. Holistic arguments about the value of quantities

Statistics in general can be dismissed by arguing that social concepts cannot be quantified because to do so requires a limited approach and numbers can never capture reality. This debate may take place before the production of measures and numbers in relation to other sources of information; during production, about whether quantification is possible and appropriate; or after, when the resulting quantities are assessed.

2. Arguments about methods

If it is given that we quantify a social concept, the production method can be debated. Which methods are available? Why is a particular one chosen or a new one developed? How is this method used? What are the data? Is there an issue with the method and comparability over time or place? Are the methods and data the most up

¹¹¹ See Chapter 2.

¹¹² See Chapters 3-5.

¹¹³ See Chapter 4 on the lack of change of the US poverty thresholds and Chapter 6 for the levels of analysis and political embedding.

to date, accurate and cost effective? These concerns influence the production domain of all the measures for which the product is designed and assembled. Theoretical and practical issues are important, as well as the users and their purposes. For example, the HDI is designed to be accessible and therefore uses a simple ranking list which is easily understood and a simple weighting process, even though the index itself is not straightforward.¹¹⁴

3. Arguments about the elements

The decision on which poverty elements to take into account occurs in the production domain where the poverty line, for example, is produced according to a certain basket, relating to the expenses in terms of food, shelter and the way to include these, and whether to make an absolute or relative poverty line. These arguments are mainly theoretical and can take place within the academic user domain or in the production domain.

4. Arguments about the social issue itself

The discussions about the social issue itself depend on the acceptance of the measurement, which can then lead back to debates on the social issue more generally. For example, a discussion about the quantitative data can be used to support a certain claim; thus the outcomes of a poverty measure can lead to debates on what has happened to poverty in a given country over time. What happens in the use domain depends on the users, varying from producers, who monitor the outcomes and academics, who implement the outcomes in new models for relating poverty to other variables, and politicians, who use them for bookkeeping purposes, to journalists and the public interested in poverty.¹¹⁵

5. Arguments on the causes of the social issue

The poverty measures provide outcomes which demonstrate poverty in a quantitative way. They do not, however, indicate the causes of poverty. This is a different type of research, for which poverty measures are only an important starting point. The causes of course vary and are difficult to untangle, since poverty is a

¹¹⁴ See Chapter 5.

¹¹⁵ The cases on Booth (Chapter 3) and the HDI (Chapter 5) demonstrate the contributions of poverty measure to the understanding and action.

multidimensional problem which can have different causes depending on which area is taken into account. Poverty measures and numbers can therefore provide a starting point, but additional products have to be supplied in order to relate the outcomes to the causes. This is extended on the user level, where academics, politicians and journalists can be seen to further investigate the causes of poverty.

6. Arguments about what to do about the social issue

In order to act upon statistical findings, one has to have a clear idea of the measures and causes of the trends in the statistics. Thus, to use poverty statistics for policy, the poverty measures have to be understood, as well as the trends and dynamics which the poverty numbers demonstrate, besides the causes of these trends. This process goes on from the production side as well as the users'. Economic indicators are often seen in relation to the demand of politicians for policy designs. Yet the poverty measures by themselves prove not to be prescriptive for policy purposes. The numbers can urge action, draw attention to poverty, but not by themselves offer suggestions on what to do.

Even if there is a plan of different policy designs, the practicality of policy programmes has to be taken into account. Ideally, the programme will target the causes directly and thereby have the effect of decreasing poverty. Reality is generally too complex for this; the causes and solutions for reducing poverty are not visible in the measure by itself. Moreover, the programmes have to be designed and funded and even when implemented the intended beneficiaries may not always be reached as imagined. Thus even if all poverty information is correct and understood, designing a policy effectively still does not mean that in practice the policy always secures the envisioned result. Even when it does, the poverty measures may not directly show the effect because of the way they measure poverty or because the effects only appear over time.¹¹⁶

¹¹⁶ See Chapter 6.

2 Poverty measures in analogy with products

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2.1 Introduction

Poverty has always been a damaging aspect of daily life for millions around the world. In order to take action against poverty, poverty and its causes must be understood. However, the term ‘poverty’ and its meaning are complicated. Poverty is a complex and multifaceted concept, which to begin with does not allow an easy establishment of what poverty is, let alone how to act against it.

Information on poverty is provided by a variety of sources, of which poverty numbers make up an important part. Statements that 1.1 billion people live in dire poverty today¹¹⁷ or ‘30.7 per cent of Londoners in 1889 was poor’¹¹⁸ can serve as essential claims which form the basis for information on poverty. These poverty numbers seem to present ‘hard facts’ on poverty, to facilitate the objective statements which are the essential first steps in the combating of poverty. The ‘matter of fact’ statements do not reveal much about the source of the evidence nor the underlying process of reaching the final number. However, to act against poverty effectively requires an understanding of what these statements actually mean, which is a prerequisite in investigating the causes of and the possible policy actions against poverty.

Poverty numbers are the numerical outcomes of using a poverty measure, a process which investigates poverty with the aim of capturing the concept in a quantitative way. This process involves developing and using the poverty measure needed to produce the poverty numbers. Measuring poverty requires amongst other things agreeing on a definition of poverty and setting a standard or poverty line to assess who should be counted as poor and on what basis.

Despite the simple appearance of a number, the process of reaching it is far from straightforward. The poverty measure has to be designed, the data have to be collected and processed in order to reach the final poverty number and in all phases different decisions and stakeholders can play a role. Whereas the economic literature focuses mostly on the production of the poverty measures, less is known about its context and what happens to the poverty measures once they have come into existence. This is related to but not necessarily determined by the production process, as the case studies in the following chapters will demonstrate.

¹¹⁷ International Bank for Reconstruction and Development and World Bank. *Global Economic Prospects: Managing the Next Wave of Globalization, 2007* (Washington, D.C.: International Bank for Reconstruction and Development/The World Bank, 2007). p viii.

¹¹⁸ Charles Booth. *Labour and Life of the People in London*, 2nd ed., vol. 1, *East London* (1889). p. 23.

To understand these issues, this chapter develops the conceptual framework to investigate how the package of poverty measures and numbers is produced and used. I refer to quantitative poverty information as a package because it is a combination of the poverty measures used in particular situations. First the poverty measure is produced, for example a poverty line such as the World Bank's 'dollar-a-day' (see Chapter 5). This product design includes mathematical applications and empirical testing. Then the measure is used to yield the poverty numbers which assess poverty in a certain time and place, for example, that by 2008-9 more than 13 million people were living in poverty in the UK.¹¹⁹ Thus there is a package of both poverty measures and poverty numbers offering two complementary products.

This chapter uses a thought experiment to compare poverty measures to commercial products so as to understand the production and use of this package. The thought experiment uses the notions of supply and demand applied to a different kind of goods and unravels how the concepts are produced and used. This is useful for poverty measures as they are not 'just there,' but are produced in much the same way as other products are produced. If we look beyond the number, a complex world appears of stakeholders, production, agency, conflicting interests and different uses. Using the analogy of analysing poverty measures and numbers as products – in my terminology, using the product approach – is useful because it creates new perspectives and new ways to think about poverty measures, in particular an innovative way to unravel what happens to the poverty measures in and in between the production and user domains.

The main question in this chapter is 'How is the product approach useful in understanding the production and use of the package of poverty measures and numbers?' In subsequent chapters this product approach will be used to inform case study work on four different examples: innovation by Charles Booth's poverty measures of London in the late 19th century, conflicting uses of the US poverty thresholds developed by Mollie Orshansky in 1963 and competition between two measures developed in 1990: the World Bank's 'dollar-a-day' poverty measure and the UNDP's Human Development Index (HDI).

Section 2.2 focuses on who and what is involved in the process of producing the good, which takes place in the production domain. Section 2.3 discusses the

¹¹⁹ Anushree Parekh, Tom MacInnes, and Peter Kenway. *Monitoring Poverty and Social Exclusion 2010* (Joseph Rowntree Foundation and New Policy Institute, 2010). pp.22-3.

variety of classifications of products and how they apply to poverty measures; in other words, what is the nature of the goods? Section 2.4 discusses the distribution of the goods, that is, what happens to the product once it has been produced? This then connects to Section 2.5, which focuses on what happens in the user domain. Section 2.6 focuses on notions of success and impact and Section 2.7 concludes.

2.2 The domain of production

This chapter discusses the analogy between poverty measures and products, which entails treating poverty measures and numbers as goods which are produced, have certain characteristics, are distributed and marketed, and become of value to users who require the product for a certain purpose. I describe the production and use of poverty measures and numbers in analogy with those of products and for clarity use running shoes as an example.

An analogy can have positive, neutral and negative properties.¹²⁰ This means that the comparison will yield properties which are the same: positive properties; those whose likeness is not known: neutral properties; and properties which are dissimilar: negative properties. In the discussion I refer to these properties to enhance the usefulness of using the analogy. Analogies can be useful because they guide thinking along new lines. As Mary Morgan has argued, the neutral properties of analogies offer opportunities for analytical progress, as do the negative properties.¹²¹ That is, the points where the analogy seems not to work is where analytical depth can be gained, because they create an incentive to clarify which parts are different, for what reason and what they teach us about the entities being compared. Therefore this chapter seeks to make explicit where the analogy does not fit, not in order to dismiss the analogy but rather to deepen the analysis of poverty measures.

Poverty measures and numbers, like all economic indicators, are not 'just there.' They have to be produced. Different people, assumptions and decisions are involved in producing a poverty number. The poverty number does not show this process; as a quantity it seems objective, distant from people and any subjective

¹²⁰ Mary S. Morgan. 'The Technology of Analogical Models: Irving Fisher's Monetary Worlds,' *Philosophy of Science* 64 Supplement. Proceedings of the 1996 Biennial Meetings of the Philosophy of Science Association. Part II: Symposia Papers (1997).

¹²¹ Ibid.

influence.¹²² However, not understanding the number can lead to misinterpretation or uninformed acceptance or dismissal.

This section discusses how the analogy with a product such as running shoes can help to understand how poverty measures come about. Obviously, the characteristics differ per poverty measure, in which the origin is determined by time and situation.¹²³ To better understand the origins of poverty measures, I use the analogy with products to discuss the production domain. First I describe what I mean by production domain, which stakeholders are important and what other parts of the production domain can be identified as relevant.

2.2.1 The institutional levels in the production domain

Within the production domain the institutional setting influences the way in which the poverty measures originate and are produced. If there is no company or institution, the process of production also involves the process which in existing companies is already taken care of, that is, finding investors, setting up the administration and labour arrangements and distribution. This chapter assumes that there already exists a company or institution in which the new product is created, as opposed to an individual starting a company. Figure 2-1 lists the institutional levels for both running shoes and poverty measures.

¹²² See Chapter 1.

¹²³ This is why case study research with a historical approach is an appropriate methodology. Cf. Yin. *Case Study Research: Design and Methods*.

Figure 2-1 The institutional levels of running shoes and poverty measures

Running shoes	Poverty measures
Private company (E.g. Puma)	Public institution local, national, international (E.g. national government)
Overhead company: company office and plant, management and employees, administration, distributor and public relations	Overhead institution: statistical office with management and employees, administration and government connections
Company brand, consumer trust and brand name	Institution brand: reputation of office, links with government, independence
Within company: business unit footwear	Within institution: census data agency
Different departments: research and development, technology, material	Different departments: for research, data collection, publications
Internal funding flows within the company, finances through investors, shareholders, sales to company	Internal funding flows, allocation of money for the different divisions and individual projects
Entrepreneur or team for the development of new shoes	Initiator of the development of a new measure

For running shoes, one can think of a company such as Puma, which aims to fulfil a certain mission ‘to be a creative leader in Sportlifestyle,’¹²⁴ which is then connected to the company’s set-up. The company as a whole has offices and plants, management and employees, administration and sections involved with the distribution and public relations. Moreover, on the company level there is a brand, consumer trust and the brand name, which influences the demand for the products of this company. These aspects of the company are relevant to the individual product, but not in operation for one product alone. Within the company there can be a business unit for footwear, in which the production of new shoes originates. This unit can involve or be connected to several departments, including research and development or technology, where the different features of materials for footwear are developed and examined on qualities such as resistance or shock absorbency. Then there are the ways of arranging the funding within the company, which allocates certain finances to the development of a new product. Further, there is the actor who initiates the new product, the entrepreneur.

¹²⁴ PUMA’s mission is ‘to become the most desirable and sustainable Sportlifestyle company in the world.’ *Puma Website. Puma Vision* (Accessed 16 September 2011).

For poverty measures, the institutional level is often government related, as governments have the historical monopoly or economies of scale to collect information about their citizens.¹²⁵ For example, the producer can be a census bureau or statistical office or another agency within the government responsible for national data. Within the institution, there are overheads comparable to that of a company: a statistical office has managers and employees, requires administration and is connected to other divisions of government. This institution has its own reputation, which can be compared to the brand of a company; this refers to the way that the institution is known, for example, as reliable, independent, or linked to parts of government. Within the institution different departments operate on, for example research, data collection, or publications. The funding flows are organised in a certain way. This offers a negative analogy between running shoes and poverty measures, because the financial support for a poverty measure is organised in a non-commercial way. This means that the capital flows are different, thus also affecting the way that the products are distributed. Whereas the running shoe company is a commercial organisation focused on making profit, a statistical agency is not. This implies that the investors will have different aims as well. A running shoe company may have investors and shareholders who are interested in the share price and dividends of the company, whereas the main investor in poverty statistics is likely to be the government. The aim is generally to provide reliable information and good quality data on poverty, rather than investing as a way of attracting returns on investment in monetary terms. Last, like the entrepreneur within Puma, there is for poverty measures an actor who takes the initiative to develop a new measure.

2.2.2 The product design process

Figure 2-2 lists the process of product design. For running shoes, the entrepreneur from the production domain starts with an idea for a new running shoe. The idea of a new product emerges with the prospect of serving possible demand, which can come from existing users ('I want running shoes with ankle support' or 'I want fashionable trainers'). There can also be an increase in runners inspired by for example Olympic Games coming to a particular country increasing the popularity of running in general,

¹²⁵ Most poverty measures apply to national data and these measures forms the base for international poverty measures as well. The chapters on the cases will demonstrate a variety of producers as an philanthropic entrepreneur (Booth in Chapter 3), institutional body (the Social Security Administration within the US government in Chapter 4) and academics within international organisations (UNDP and World Bank in Chapter 5).

which raises awareness of the value of running in proper shoes and therefore demand in running shoes can increase. In addition, producers can identify new possibilities in the markets relating to questions such as: Is there demand for shoes which take account of foot bedding, circulation, different air pockets to cushion landing, added ankle support? Is the supply of running shoes with special features limited? What are opportunities to combine shoes with modern technology such as smart phones? A variety of factors can lead to the design of new running shoes.

Figure 2-2 Design stages of running shoes and poverty measures

	Running shoes	Poverty measures
Idea	Idea for improved or new shoe	Idea or incentive for poverty measurement
Design	New design including decisions on which materials to consider and how to produce it	New design of which factors to take into account and in what way
Research	Research and development, based on own lab, on competitors (e.g. Nike air), experience with previous models	Research based on academic literature and knowledge on poverty and own improvements
Technology	Technology, taking into account materials available or to be obtained (for example, shock absorbing material from NASA)	Technology in terms of economic theory, statistical apparatus, experience with past indicators, own expertise plus considerations of data quality and availability
Differentiation	Comparison to other existing products, whether it be a modification of an older model or a new product line to expand business.	Comparison to other sources of poverty information or existing poverty measures
Result	Result: design of new model	Result: the new design for the poverty measure

The new idea needs to be operationalized, that is, to become more concrete in terms of translating the ideal image into goals which are functional and practically achievable. This may involve meetings for brainstorming and deciding on the features of the new shoes. There might be inventive ways of incorporating physiotherapeutic insights about alignment and preventing knee injury, for example. There might be new technology available, including air cushions, or combining different material for both support and flexibility, having the shoe ventilate as well as offering stability for smoother running. The decisions on these issues combine functionality ideals with the practicality of the available materials, their costs and

quality. Thus a new design is made which includes decisions on which elements to take into account and what processes to involve.

This phase can coincide with the inputs from the research and development division, for example, inputs based on experience with previous models, on research from the firm's own laboratories or on the activities of competitors. Moreover, the technology involved can include the use of new materials, for example, shock absorbing materials.

This design process includes considering the comparison to other existing products, whether the new model modifies an old one from the same company, or adds a new product line to expand business. This design process results in one or more models proposed for the firm to launch.

For poverty measures, the process also starts with the initiator having an idea or incentive for measuring poverty. The initiators are different each time. They can be individuals, academics, researchers, statisticians or politicians. Their background and position may influence their perspective; for example, there is a difference between Booth¹²⁶ working on poverty as an individual who co-opted a large research team to help him and Orshansky¹²⁷ working on poverty as an employee of the US Social Security Administration. This is because Booth as a philanthropic entrepreneur had his own interest in investigating poverty in London and was not tied to an institutional setting such as the one where Orshansky worked; this affected the poverty measures to be developed within the agency and government in which she was employed.

Poverty measures are difficult to develop. Like different teams or departments of a shoe factory working on design, manufacturing and marketing, the production of poverty measures involves different kinds of people at different stages. Moreover, there may be investors or organisations with conflicting interests, a point to keep in mind when analysing the cases.

In the design phase the producers decide which factors are taken into account and in what way. Research informs these decisions, as academic literature and other poverty knowledge can be augmented by the initiator's own improvements to find the optimal mix of the elements to consider. Practical considerations play a role as much as theoretical ones, for there can be a tension between the desired data and the

¹²⁶ See Chapter 3.

¹²⁷ See Chapter 4.

data available, or the feasibility of gathering them. The technology can be identified in terms of economic theory, the statistical apparatus and software, as well as experience with existing poverty measures. The expertise of the production team is relevant too. This phase also includes a comparison to other sources of poverty information or existing measures. Section 2.2.3 further examines the decisions to be made in the process of designing poverty measures. The result is the development of a poverty line, which allows for poverty measurement.

2.2.3 From product design to product

The next stage takes the product from the design to the actual product, as listed in Figure 2-3. For running shoes, this may start with making dummies to prepare the actual process, which can then be followed by market research to assess the demand for the shoes. The planning and logistics for the production activities need to be decided on and the machinery, inputs and labour need to be prepared so they are in place for the production. The final step would be to actually have the inputs go through the production cycle to yield the shoes.

Figure 2-3 Process from product design to product

Running shoes	Poverty measures
Make dummies	Make pilot
Market research	Communicate with market
Decide on planning the process and actual production activities	Decide planning and practicalities of data collection and when and how to measure and finish product
Get machinery, inputs and labour ready for production	Get people and statistical packages in place
Start production cycle	Collect data and combine them into product
Result: the product running shoes	Result: the product poverty numbers

For poverty measures, the equivalent to making a physical dummy is to make and test a pilot measure. In this phase the producers can experiment with empirical data to test the poverty measures both for theoretical accuracy and feasibility of data collection and processing. Another phase is to communicate with possible users to

exchange thoughts on the production, for example through (academic) conferences.¹²⁸

The product design testing and production of both running shoes and poverty measures depend on the status or novelty of the product. That is, when there are already running shoes on the market, the producers may be able to use their own preceding work or look at their competition. This is similar for poverty measures: producers of poverty measures can use or interact with the quantitative and theoretical basis available within the academic domain. This means that while early poverty researchers had to invent poverty measures, their followers could incorporate the existing knowledge and experience and use previous measures as examples. Poverty knowledge¹²⁹ has evolved over time and therefore it is important to be aware of the contemporary status of poverty research when focusing on the different cases. For example, Booth set out his investigation without predecessor¹³⁰ whereas the HDI actively interacted with the existing literature.¹³¹

While these consideration and activities are relevant for the (theoretical) content of the poverty measures, the next phase involves deciding on the practicalities of the measurement and the people and data processing technology need to get in place.¹³²

The actual data collection and combination of the data into the product can then take place. As with running shoes, the result of this phase are the poverty numbers rather than the poverty measure, which was the product of the product design process. This means that the poverty measure is the framework which provides for the local data to be processed to yield the poverty number for a specific moment and specific place. The difference is that the poverty measure can be used to process data from different times or places, whereas each poverty number refers to one place at one time only. This can be compared to the shoe design and the actual shoe on the shelf in the store.

¹²⁸ In practice this can turn out differently. For example, for the US case, the measure was still in the developing phase when the 'pilot' measure became used straight away before improvements could be made and changes proved difficult ever since (see Chapter 4).

¹²⁹ Alice O'Connor. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century US History, Politics and Society in Twentieth-Century America* (Princeton, N.J.: Princeton University Press, 2001).

¹³⁰ See Chapter 3.

¹³¹ See Chapter 5.

¹³² This actual producing phase might involve reconsideration of decisions made earlier, which can involve going back and forth to previous stages of the process. This can be a reiterative process between design and testing stage.

2.2.4 Decisions within the production process of poverty measures

As it is important to understand the decisions within the product design process for poverty measures, this section examines those in further detail. The design phase incorporates many assumptions and decisions which are not necessarily visible in the final product. Whether the producers can rely on existing products or not, the fact that they consider a new product means that they may find something lacks in the existing supply. Therefore they have to make decisions how to design and format a new product.

For poverty measures, most are set up to establish a poverty line according to which a person or household is classified as poor or not poor. The literature on poverty measurement distinguishes between absolute and relative poverty lines.¹³³ An absolute poverty measure refers to a level of income enough for a set level of costs for necessary food, housing or clothing. Examples are a poverty line of three times of what is needed for adequate diet, or a ‘dollar-a-day.’¹³⁴ This absolute measure is opposed to relative poverty, which refers to the inability to participate fully in economic terms in society and relates the individual or the household to others within a certain group. Usually the ‘group’ would be a nation and a typical relative measure is 60 per cent of the median per capita income in a certain country.

Both of these notions of poverty lines imply several decisions in the product design process and are important for the eventual use of the poverty measurements in calculating poverty numbers. For example, for poverty lines it matters how the line is set, which depends on what to take into account, which aspects to consider and in what way. For absolute poverty measures the poverty line depends on the decision of the minimum standards for individual or household needs. These aspects can be quantified in terms of costs of for example minimum food intake, shelter and clothing. This minimum level, the poverty line, is then compared to the income of the individual or household to actually classify them as poor or not. In contrast, for relative measures, there is also the issue of what the comparison group is, for example whether a region is taken or the average of a nation to establish the poverty line. Moreover, relative measures require deciding what level of analysis to take, for example whether the desired proportion is to take the amount of people living from an income below 50 per cent of the mean per capita national income.

¹³³ See Section 1.7.

¹³⁴ See Chapter 5.

Practically, these relative measures may have the benefits of being in production terms less labour intensive than absolute measures, since they can rely on income information which is mostly already accessible, having usually been collected for tax purposes. Relative measures can also be seen as more flexible than alternative designs, such as absolute poverty measures, because the same raw data can easily be used to look up what proportion of the population below 40, 50, or 60 per cent of the median is¹³⁵ and, for example, what proportions of the populations earn what proportion of GDP.

The practical issues should also be taken into account with regard to the inputs, the raw data. For poverty measures these relate to household survey data, collecting a database on which to determine the poverty line. Theoretically, a measure can give the most accurate and complex reflection of household situations, but in practice obtaining this information and delivering it in the required quantitative format can be a costly and time-consuming activity which the producers should take into account. Therefore the existing data have to be assessed; if they are acceptable, the producers can decide to use them. Otherwise, they can decide to collect other data themselves. This also implies that the producers have to take responsibility for using data of poor quality, in the same way as a shoe producer cannot shrug off responsibility for using leather with holes in it. In sum, there are many aspects involved in the design phase which determine the final product.

2.3 The nature of the products: poverty measures and numbers

A product can be defined as ‘anything that is offered to a market for attention, acquisition, use or consumption and that may satisfy a want or need.’¹³⁶ Running shoes are a clear example of a product offered to the market to be acquired by runners or others, to use as footwear, thereby satisfying a need for a certain type of shoe. In comparison, the production of poverty measures actually involves two types of products: the first is the poverty measure, that is, the quantification procedure, the aspects taken into account and the way in which these are combined. This includes the way that the poverty line is set up and the way the data are processed. The second

¹³⁵ For example, the OECD statistical database offers the poverty rates after income and taxes, data on 40, 50 and 60 per cent of the median income for OECD countries. *Organisation for Economic Co-Operation and Development Website. Statextracts on Income Distribution - Poverty* (Accessed 16 September 2011).

¹³⁶ Philip Kotler. *Principles of Marketing*, 2nd European ed. (London: Prentice-Hall Europe, 1999). p.561

product refers to the actual poverty numbers, the numbers produced by the poverty measures, which refer to the level of poverty in a certain place at a certain time.

Both these products can be seen to satisfy the definition of a product, in being offered to a market, even though the market for poverty measures seems less obvious than the one for running shoes.¹³⁷ The measures satisfy the want and need to define, model and quantify poverty in a certain way. The actual poverty numbers satisfy the need for an answer to the question of how poor an individual, household or region is. The needs depend on the type of users and can be different for these two products, as discussed in more detail in Section 2.5 below.

2.3.1 Rival and excludable goods

A well-known distinction in economics is between public and private goods, whereby private goods are rival and excludable.¹³⁸ Rivalness refers to whether the good can be used by an unlimited number of consumers and excludability refers to whether access to the good can be restricted.¹³⁹ Running shoes are both rival and excludable, since a pair of running shoes can be used by only one person at a time and the use of the shoes can be restricted. In contrast, poverty measures and numbers can be used simultaneously by an unlimited number of consumers, which makes them non-rival goods. In principle, it would be possible to exclude people from access to poverty measures without paying for it, which would make them excludable goods, but in practice they are often produced by researchers or research institutions or government bodies, which then allow free use of them through the internet, libraries or archives. This is important for the subsequent use of the product and influences their being more easily distributed than for excludable products. Therefore, using the distinction between private and public goods, poverty measures and numbers qualify as public goods.¹⁴⁰ However, this does not mean that both goods are not produced, distributed and used. Moreover, the poverty numbers can have social and political consequences, for which it is important to take into account their

¹³⁷ The market seems like a negative property, but the 'market' is never as clearly defined as suggested by the ideal image of a vegetable market where clearly identifiable groups of suppliers and consumers gather. People with a need for footwear may want more specialised running shoes or trainers and rarely gather with buyers and sellers in one particular place. In similar ways individuals might require quantitative information for professional reasons or out of curiosity and there is not one particular market place for measures and numbers where demand meets supply.

¹³⁸ As explained, for example, by Paul M. Romer. 'Endogenous Technological Change.,' *The Journal of Political Economy* 98, no. 5 (1990).

¹³⁹ Ibid.

¹⁴⁰ Ibid.

production and use. Thus, while the analogy between running shoes as private goods and poverty numbers as public goods is negative, thinking along the lines of production, distribution and use does inform us about the impact and consequences, which otherwise would be hard to unravel. Moreover, little is known about the production side of public goods. Often they are considered as ‘being there’ and the approach is mainly focused on incorporating the externalities into creating a ‘price’ for the good.¹⁴¹ Thus the product approach also makes a contribution in terms of shifting the focus on creating a market price for public goods so as to view their production, distribution and use.

The analogy between running shoes and poverty measures suggests further differences in the characteristics of the product. The main difference is obviously that running shoes are a physical product, whereas poverty measures are information products. Information products are known to be non-rival and the excludability issue is difficult to control after the point when access is given. Nevertheless, both products and organisations can be seen to compete, as Chapter 5 demonstrates for the HDI and the dollar-a-day measures.

2.3.2 Intermediate and final goods

Another distinction is between intermediate and final goods. This relates to whether the product is used for continuing production, or whether it is a final good as it stands. For running shoes the soles could, for example, be processed to become a part of the shoe. However, the actual shoe is a final product, since it does not serve as an input to a subsequent stage or other production processes. Poverty measures and numbers can, in contrast, function by themselves and be seen as entering further production, for example, in economic models which relate poverty to employment. This use of poverty numbers can then produce additional measures and numbers. This is unlike a change in the soles of running shoes, for example, as these do not function by themselves. Rather, the running shoe as such can become part of a running outfit, combined with shorts and a t-shirt, but in this case the individual functionality of the running shoe still remains. Poverty measures and numbers function both by themselves and in the larger packages they form part of.¹⁴² This

¹⁴¹ Richard Cornes and Todd M. Sandler. *The Theory of Externalities, Public Goods and Club Goods*, 2nd ed. (Cambridge: Cambridge University Press, 1996).

¹⁴² See in particular Chapter 3 on Booth’s package of poverty products and Chapter 6 on the HDI which offers a whole range of products on human development.

comes back to my understanding of the use of the product, which entails either using a number as it is, or taking it so as to add it to other products or letting it serve in a new production process of further measures or models, as discussed next.

2.3.3 Complementary and competing goods

The connection of the good to other products in the market suggests another view of the nature of the products. Depending on the purposes of the user, the products can be seen as complementary or competing. When the user wants specialised running shoes, the product can be seen as a good competing with other running shoes whether from the same company or from a rival. When viewed as general footwear, even formal leather shoes or slippers can be seen as complementary goods. With poverty measures there may be other ways of quantifying poverty and these goods can be seen as competing. In contrast, when seen in the wider market of poverty information, the poverty measure can be seen as a competing or complementary good, depending on the user. In the market for other sources of poverty information, the following products can be identified. There are different formats in which we can present our view of poverty. Poverty is a multidimensional concept and not uniformly defined or determined. We gain our information on poverty from a variety of different sources as the following list indicates, ranging from personal experience to scientific representations of poverty:

- personal experience
- films/television/fiction
- photos/drawings/cartoons/other visual images
- anecdotes
- stories
- journalistic reports (newspaper, background articles, television items)
- documentaries
- interviews (relating to personal experience)
- reports (including more varied and perhaps more academic approaches)
- poverty measures (quantification and statistical formulae)
- poverty numbers (quantified outcomes)
- tables, charts (numbers presented in different ways or made visual)
- maps.

As can immediately be understood, these different sources of information about poverty are very different. These products act on different levels, that is, they either present an experience such as stories, interviews,¹⁴³ and anecdotes, or they can combine several stories in reports or in a documentary style to say that poverty images relate to personal experience, as a documentary can do. Moreover, the items of information can be combined to create a more complex and encompassing image. For example, to present poverty a television documentary can combine anecdotal information with moving images and sounds. This means that an interview would then be a complementary good to the poverty measure. Yet when the user is within the political domain the anecdote can serve as a competing good giving a different meaning to poverty, unlike that of a number.¹⁴⁴

Furthermore, the different actions involved to actually reach the information vary. Without any delay or intervention, people can share their own personal experience, or take a photo and show it. However, when the information comes through a documentary there is more thought involved, in terms of which aspects to highlight, what is visual, what is the best way to put a certain message across.

¹⁴³ For example the interviews with the 'poor' that Henry Mayhew became famous for, see Chapter 3.

¹⁴⁴ Booth's poverty measure (see Chapter 3) offered a new product to compete with these sources of poverty information, while the HDI competed with the GDP based measures on development (see Chapter 6).

Similarly, poverty measures invite complementary activities and knowledge sources. Even a seemingly simplistic approach, such as ‘counting the poor’ involves deciding what it is that makes someone poor, that is, setting a standard about what is poor and also establishing a certain area to include in the exercise. It involves capturing an aspect of human life in a number, which requires definitions, assumptions, boundary setting and other activities that take place in the product design process.

2.3.4 Differentiating added value

What gives a product added value and makes it different from other products? For running shoes these characteristics can be related to the form, durability, types of material and cushioning qualities. They can also be related to appearance. To compare poverty measures to the other sources of poverty information in the list above, the main value distinguishing poverty measures from the other sources in the list is that they produce quantified information, that is, poverty numbers. Numbers allow a one dimensional approach, which is quantitative and captures concepts in numbers. This may, however, give a false impression of objectivity, since there are assumptions and decisions behind the number.

A second feature is that as long as the same measure is used, numbers can be compared and interpreted according to a standardised format.¹⁴⁵ Thus numbers allow for comparisons, over time and over space, from region to region. Moreover, numbers facilitate statistical and mathematical applications and through the quantitative approach they can enter certain models and be used for statistical and economic theory.

Numbers can make complex issues more accessible. Specifically, poverty lines are used to give head counts, which offer only yes/no answers to the question whether someone falls below the poverty line. For numerate people, the resulting numbers are, or at least seem, simpler, more readily readable than expert reports, or even a statement such as ‘poverty is a big problem.’ When stated in quantitative terms, this number can in fact relate to several different people rather than referring directly to an individual. For example, in proportions: 30.7 per cent of Londoners in

¹⁴⁵ This is what Ted Porter calls standardised quantified rules (see Chapter 1). Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. p.162.

a certain year were poor.¹⁴⁶ Obviously the number still needs to be interpreted correctly, as in, what it actually means, which poverty line was used and whether this number is actually surprising or impressive, otherwise the number is less influential. Still, even though the number may not be overwhelmingly impressive, there seems to be something more determinant about a numerical answer than an individual can suggest by a qualitative statement.

Numbers can give one answer to one question and they do not facilitate debate between various options. No debate is possible on the number itself, only on its production process, in which different debatable issues have to be settled. Yet this process is usually presented as a black box, not easily opened for scrutiny. This causes the awkward situation in which objections are shielded by the black box, not encouraging an open debate with decisive outcomes.¹⁴⁷ The opposing camps can be seen as between the believers in number, who rely on the hierarchy of trust in numbers,¹⁴⁸ the objective appeal and the definite answer to which the numerical approach lends itself and the opposing camp, containing those who dispute the power of number, not only because of its numerical presence (this concept is not itself quantifiable) but as purporting to deny some or all of the stages of the production process: the raw materials – the possibly poor data, the assumptions, the decisions about which aspects to take into account, the way that the inputs are combined and the ways in which the final number is presented.

This raises another important feature of poverty numbers: that quantities appear objective. As they seem distant from people or opinions, numbers can be seen by some as more trustworthy than a qualitative account. This is why numbers are sometimes referred to as ‘hard facts,’ since they seem solid, factual and informative. The claim of objectivity relates to the way that personal interference is excluded from the numerical approach. Poverty measures create distance from people in two ways. First, there is the process of quantification, which creates distance from the people engaged in the measurement process. Because the poverty measures and numbers abstract the conclusions from the people drawing them, they allow for less personal interference from expert reports, surveys, or interviews. Second, there is the issue that using poverty numbers detaches the poverty from the individuals suffering

¹⁴⁶ See Chapter 3.

¹⁴⁷ See Chapter 5 on the US poverty thresholds that have not been changed despite continuous attempts.

¹⁴⁸ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. See Chapter 1.

from it, so it becomes a concept to talk about as if it were unrelated to the poor, whereas poverty is actually a characteristic of a person or household and also for the sake of the person in misery that policy is designed. On the one hand, it is useful when discussing poverty on a larger scale or for a political programme, to create some distance. On the other, when designing policy plans, this distance needs to be reduced rather than expanded when it comes to sharing an understanding of poverty within its situation for the design and implementation of policy.¹⁴⁹

For the political domain, both distance and closeness to poverty are useful. On the one hand it is exactly the distance from subjective claims, the objective appeal and the reliance on formats, procedures and standards that can make the facts on poverty 'hard.' This is useful, for example, in arguing for a research allocation, or the development of a poverty programme. A politician can choose to use poverty numbers to impress, or pass legislation, or convince the electorate and administrators. On the other hand, closeness can be effective. For the same politician personal anecdotes may be very powerful and more useful for persuasive speeches, which can be reinforced even more strongly by being related to personal experience. In this sense, the numbers create an unwanted distance. Thus even the same people may for the same purpose use different sources of poverty information.

Again, poverty numbers can be both competitors and complementary goods to the other poverty sources on the list. They can be seen as competitors, as different providers of information about poverty. Yet their complementary nature is seen when poverty numbers are triangulated with other poverty information. For a documentary, the film maker takes a certain perspective and the viewer subsequently perceives the image of poverty through the lens of the film maker. This is the same for poverty numbers whose users are obliged to take the view of poverty that the producers bring forward. Whether the poverty numbers are accepted or not is related to how they combine with other poverty information sources.

The quantitative appeal tends to be seen as persuasive; numbers are taken as 'facts,' and it is less clear that poverty measures, like more obviously subjective appeals, present a certain view on poverty, determined by the factors taken into account and the basis that the poverty line is set on. The measure determines which aspects are taken into account and which are left to one side. This means that poverty

¹⁴⁹ See Chapter 6.

measurement actually channels the users' attention along the aspects taken into account and away from other issues related to poverty.

2.4 Distribution

While the stakeholders and activities in the production domain determine how the poverty measure comes about, they do not necessarily dictate what happens to it after production. This section discusses how poverty measures are distributed and connected to the user domain. This is comparable to the distribution of running shoes in the market, thus asking how the marketing process brings the product to its consumers.

When producers start with a clear view of the uses of the poverty measure and take a stake in its final use, the production process can be extended to include a marketing approach clearly targeted to reach the assumed users. Within the marketing literature there is a traditional classification¹⁵⁰ of the marketing mix which distinguishes between the '4 Ps': product, pricing, promotion and placing.¹⁵¹ The product aspects refer to the characteristics of the product and the way that it satisfies prospective users' needs. The pricing aspects refer to what is exchanged for the product, which need not be monetary; it can also incorporate, for example, time, energy or attention. The promotion includes advertising, sales promotion or other means by which attention is drawn to the product to promote its use. Finally, the placement refers to the way in which the product is distributed.

2.4.1 Product

In the marketing of running shoes, the product aspects are in the first place the functionality – a running shoe offers the runner better performance – and in the second place appearance, which may be important to the second group of users. The pricing then involves the way that the product is priced in relation to the price of the material and innovation, and to the price range of its competitors and the customers' willingness to pay. The promotion then refers to the way that the shoes are advertised, for example, campaigns to launch the new model through, say, advertisements in running magazines and the sponsoring of marathons to raise awareness of the shoes as a commodity. Finally the placement refers to the

¹⁵⁰ Walter van Waterschoot and Christophe van den Bulte. 'The 4p Classification of the Marketing Mix Revisited,' *Journal of Marketing* 56 (1992). p. 84.

¹⁵¹ Kotler. *Principles of Marketing*. p. 570.

distribution; the channels by which users may obtain the products vary from wholesale to customer, internet sales, and the shops which stock them. For the different user groups, different strategies may be taken with each of these Ps, for example, the placement of the running shoe involves distribution in specialised sports stores as well as the casual wear section of a department stores.

Even though the eventual users may not be as clear from the outset and poverty measures may not be advertised in a commercial way, thinking in terms of marketing literature can help us to see how producers disseminate their poverty measure and numbers. This involves identifying the market and the possible user groups and trying to find distribution channels along which to reach the market. In these ways the analogy with running shoes is useful for poverty measures regarding the Ps of the marketing mix.

The product aspects for poverty measures and numbers refer to the user groups' needs which the strongly complementary products can satisfy. The positive properties of the analogy involve the fact that, in the production phase, the producers may not have in mind all the characteristics of the product that the end users value. Similarly a running shoe producer may not envisage the shoe's becoming popular as a fashion trend as well as for running purposes. For example, when the US poverty thresholds¹⁵² and the World Bank's dollar-a-day¹⁵³ were developed, the producers did not envisage how popular the measure would become. Thus the measure was not distributed from the outset as a useful measure to work with to the large group of people who ended up using it. Only later did the marketing pick up on this and the marketing strategies could be expanded to reach more people.

2.4.2 Pricing

The pricing aspects demonstrate the negative properties of the analogy. Whereas running shoes are goods which are priced with a retail price in mind for the end user to pay, poverty measures are not valued and priced as such. Even though some economic numbers are sold, poverty numbers and their measures are not necessarily paid for by the end user as an individual. Poverty measures are not commercial in the way that running shoes are. Most products of academics and census bureaus or

¹⁵² See Chapter 4.

¹⁵³ See Chapter 6.

statistical offices, including poverty measures and numbers, are freely available in libraries, the internet and archives.

Yet the institutions such as libraries or NGO's may have to subscribe to access data, which in effect means that they pay for them. However, the products are then sold as part of a larger package. The poverty measure as such is not sold individually, nor are poverty numbers. Therefore the pricing of running shoes is a negative property of the analogy with poverty measures.

The fact that poverty measures are not priced, does not of course mean that the products are not paid for. It merely means that the funding and financial flows are differently organised. The payment is channelled through government funding (national poverty data) and other money flows, individual spending (in Booth's case), or payments through international organisations (the UN and World Bank).

2.4.3 Promotion

The promotion aspects are relevant for poverty numbers as well. The producers of data have become increasingly aware of their role and possible increase of awareness and impact of their work through effective promotion.¹⁵⁴ If the measure is meant as a research tool within the academic setting, one can think of promotion in terms of publications and presentations to attract attention and engage with the possible academic users of the poverty measure. If the measure is meant for use within the political domain, there are different communities to reach. This may involve different types of marketing for politicians, administrators, interest groups and the electorate. Each of these communities may need specific targeting.

Branding and whether the branding of poverty measures facilitates its travel plays a role related to the larger level of the 'company.' According to Kotler,¹⁵⁵ consumers view a brand as an important part of a product and branding can add value to a product. A brand can be defined as a name, term, sign, symbol or design, or a combination of these, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors.¹⁵⁶ With running shoes,

¹⁵⁴ Statistical and international organisations increasingly use tools such as animated maps and graphs to present their data. Statistical application towards animating numbers and information has become increasingly popular as a way to communicate knowledge. For example, Professor Hans Rosling compared statistics to music on a page that come to life to be heard fully in his well-received plenary presentation on 30 June 2007 to the OECD conference on Measuring and Fostering the Progress of Societies that I attended in Istanbul, Turkey, 27-30 June 2007.

¹⁵⁵ Kotler. *Principles of Marketing*. p. 570.

¹⁵⁶ *Ibid.* p. 571.

this refers to the reputation of Puma as a company and the focus of their products on speed, appearance, durability, or other aspects. For poverty measures, branding is important in as much as the name of the producers is attached to it, giving some idea of how the numbers can be trusted. Users can differentiate between numbers produced by international agencies or charity organisations which aim to invite donations, politicians using numbers to argue for reforms and government statistical agencies which use numbers for statistical representation. Whether user groups accept and use poverty measures depends on the reliability of the source, one aspect of the brand of poverty measures, which in turn lies in the reputation and authority of the producer such as a statistical office or international agency.¹⁵⁷

The promotion also involves the levels on which the poverty measures and numbers are presented. The producers have access to the data in several stages, that is, the raw inputs which are not only the household surveys on which the poverty measures are based, but also the assembled data on local poverty, the distribution per group and the way that the poverty numbers add up to national aggregates. The producers may promote their data by revealing these different levels, that is, offering the option of accessing the data by searching further, for example, through the internet pages of the World Bank.¹⁵⁸

A further issue related to the promotion, is what type of wrapping (quantification formats), or packaging (publications, internet) is given to the poverty measures. A poverty number does not stand on its own: the number 30 is meaningless unless it is combined with the statement that it is the percentage of the London population in 1889 that was classified as poor. Even this statement can be disputed, as there is a difference between its being mentioned in a pub discussion and being published in a statistical yearbook. Moreover, the statement itself can leave the user requiring more information, because it still does not explain what classifying someone as poor entails, how the research was set up and whether it is reliable.

2.4.4 Placement

Placement refers to the way in which the product is made available and through which channels, thus, the way it is distributed. The analogy between running shoes and poverty measures provides an interesting mix of both positive and negative

¹⁵⁷ See Chapter 1 for the discussion of Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*.

¹⁵⁸ *World Bank Website. Data* (Accessed 17 September 2011).

properties in the way that the promotion and placement of these two are connected. The means for the promotion of running shoes are similar to the placement of poverty measures, that is, advertisement, launching the products and seeking media attention can be seen to apply to both the running shoes and new poverty measures. Yet the meaning of the promotion also involves a negative property of the analogy. The 'unlike aspects' refer to the poverty measures being information products and the running shoes being physical products. For running shoes this means that the promotion involves the spread of information and advertising the product, thereby incentivising the demand for them and thence the sales, which was the end goal of their production. The promotion and placement phases are separated.

For poverty measures, however, the promotion of the numbers already entails their placement, that is, their distribution. That is, for poverty measures the end goal is not selling a particular number, but having both measures and numbers known and referred to. Thus the communication of information on poverty issues involves propagating the poverty numbers for a specific area and therefore also propagating the poverty measure used. There is a circularity of complementarity: the distribution of the numbers implies the distribution of the measures, which allows for distribution of the numbers and so forth. Moreover, because referring to measures and numbers implies the use of them, the distribution of poverty measures and numbers simultaneously entails the use of them.

The use then would already imply that those people who disperse the numbers are in effect using them, which turns the actors involved into users. They may be the producers, such as the World Bank and UNDP, who decide to present their numbers in a certain way and who have also been actively involved in promoting their data.¹⁵⁹ Whether the producers also act as users varies. The cases will be different because of the difference in the ways in which the producers actually take responsibility, whether for example they create leaflets or reports to show the meaning and usefulness of a poverty measure. This requires effort from the producers, who may not see this as their priority. At the same time, some statistical agencies including the World Bank, OECD and national agencies increasingly

¹⁵⁹ See Chapter 5.

attempt to promote their data through visual maps or interactive programmes available on the internet.¹⁶⁰

The users also include journalists who receive the numbers from the producers, taking them up as they were given, but possibly also modifying them by additions or bringing them to life with added interviews or images to compose the eventual article. Thus rather than seeing journalists as neutral distributors who leave the product as it is, they are actually users who change the package that the numbers comes in.

In use the purpose, format and setting matter. The variety of uses can then require using the numbers for the purpose of forming a basis for presentations, papers, making an argument or pressing for action. The use to fit a certain format can strengthen the communication of the message by using the numbers in tables, graphs, charts, maps, coloured images, or interactive computer functions. The setting is relevant, too, for a paper at an academic conference will distribute the products in another way and to another group of users than their publication in books reports, articles, online databases, or newspaper articles will do.¹⁶¹

The positive property of the analogy points to the similarity of the promotion methods; for example, advertising and creating awareness through a variety of means are used for running shoes as well as for poverty measures. The negative property refers to the fact that the means of promotion for running shoes is the placement itself. Moreover, it can be seen as going beyond placement to use, since the methods are not only a means to present the products for sale, but also being in the use of the products to measure poverty.

This section has demonstrated that the four Ps – product, pricing, promotion and placement – are essential to the eventual use of the measures and numbers. The product aspects, including the user demands, are instrumental in getting the products to the user groups. Policy makers may prefer simpler, usable measures, whereas academics may be more interested in developing poverty measures in order to use their theoretical basis and statistical technology to reach an accurate and precise

¹⁶⁰ OECD conference on Measuring and Fostering the Progress of Societies in Istanbul, Turkey, 27-30 June 2007.

¹⁶¹ These forms of distribution involve use of as well. That is, a chart based on the poverty numbers already involves use of the numbers, which can be made visual by presentation in a different, non-quantitative form as well. An interesting issue here is whether the reputation and objectivity connected to the quantity still holds as the numbers as projected on other visual aids, including maps for example. An example for this is Booth's poverty maps, where the numbers form the base of his classification which he gave colours and made visual through the maps (see chapter 3).

measure. In practice they cannot be satisfied simultaneously and poverty measures can have a path dependent¹⁶² context which does not encourage an easy supply for all the different needs. The differences may be taken up in the promotion phase where the producers can opt for a certain format, or make a range of formats accessible. The World Bank, for example, offers different portals with resources for ‘Civil Society, Governments, Businesses, Investors, Job Seekers, Journalists, Students.’¹⁶³ Moreover, the different user groups may change over time, as does the actual use of the products.

2.4.5 User innovation and co-production

For the actual use and the development of the product for use, marketing literature draws attention to the importance of user innovation, recalling the notion of co-production in the sociology of science.¹⁶⁴ Producers can gain important insights from the user groups which use the product and can suggest alterations and improvements to it which serve their needs better. With physical products, the producers are typically involved because the innovation is usually embodied in the product and therefore requires changes in the production process. This is unlike user innovations for information products, where the involvement of the producers is not necessarily required. This is because the product can be taken up, altered and distributed without having to go through the production process.¹⁶⁵

The users of running shoes can become involved in their production, but this requires the producers to be involved, since the product needs to be physically altered. Users may go back to the store where they bought the shoes, use after sales services, send in suggestions or complaints or use other feedback mechanisms provided by the producers. These cover innovations for different user needs, in the area of functionality as well as appearance. Therefore, the different user groups may clarify their needs and pass them on to the producers. They can then customise the supply towards these needs, as Puma’s competitor Nike does, by offering on their website to let consumers design their own shoes, which are then produced and sent to those who designed them.¹⁶⁶

¹⁶² Or ‘system dependent,’ see Sections 4.6.3 and 6.5.

¹⁶³ *World Bank Website*.

¹⁶⁴ See Chapter 1.

¹⁶⁵ Eric von Hippel. ‘Innovation by User Communities: Learning from Open-Source Software,’ *MIT Sloan Management Review* Summer 2001 (2001). pp. 82-6.

¹⁶⁶ *Nike Website. Nikeid* (Accessed 19 September 2011).

With the poverty measures, producers may be involved, for example through theoretical discussions at conferences or in academic journals which provide opportunities and are actually designed to exchange and improve the ‘academic product.’ However, as poverty measures are not a physical product but an information product, user groups do not necessarily have to get back to the producers in order to alter the product. This is an example of the way that poverty measures and most economic indicators can ‘lead a life of their own’ after production, which can include unforeseen use outside the control of the producers. However, another scenario is that there is active interaction with user groups, which can lead to user innovation, or co-construction of the products.¹⁶⁷

2.5 User domains

Distribution is aimed at having the products available to their users, thus, how poverty measures travel between the production and the user domain. The user domain provides some negative properties of the analogy with running shoes. For running shoes there is a market in which consumers have a demand which they seek to meet by consuming the product. Poverty measures are not provided in the ‘market’ for a monetary price. However, as with running shoes, there can be a demand for poverty numbers. Moreover, producers can play a role in creating or increasing the demand for their products by using targeted marketing which may create or increase the need for the product as well as serving it. Looking at the use of poverty numbers can detect unforeseen need for a product when it is used for another purpose than the one envisaged.

For running shoes the obvious existing user group is runners. They can have a demand for running footwear which offers stability, support, cushioning and flexibility. The shoes are used to improve running performance and avoid injuries to the joints. A different user group can be those wearing the running shoes as casual footwear. The purpose then is to provide a sporty and fashionable appearance and the shoes are used as general footwear rather than for running. The function is then the appearance, instead of stability or cushioning qualities.

For poverty measures, the positive analogy with running shoes is that there are also different user groups with a demand for poverty measures and numbers. The users of poverty measures and numbers can be categorised into eight user domains

¹⁶⁷ See amongst others the interaction between the UNDP and users of the HDI in Chapter 5.

and the use, whether intended or not, can have different purposes depending on the interests of the stakeholders.

The first domain is the producer domain, of which the obvious stakeholders are the producers. As the producers can outsource some activities, this group includes not only the production team itself but also the data collectors, surveyors, or researchers who have also become involved in the process. The products which they hold a stake in are both the poverty measure and the poverty numbers, as they have worked to provide the data and on the production process and the products are the results of their labour.

The second domain is the academic domain, in which economists, statisticians and other social scientists can be seen to be stakeholders. They use the poverty measure for analytical purposes and to create accurate and precise measures. Moreover, the development of the process is of interest because it influences the outcomes and is therefore part of the critical debate about the production of poverty measures and numbers. Moreover, the poverty numbers can become part of the database which is used as the provider of inputs to model further investigations of poverty, such as the models relating poverty to growth, employment and other variables. Therefore the functions of the poverty products are analytical tool as well as ways to conceptualise poverty and operationalize the poverty measures. Poverty measures and numbers form the outcomes of theoretical, statistical, technological and practical work.

The third domain is the data collection within the institutional domain. The stakeholders are international or governmental statistical or census bureaus and those working on data collection. For them the poverty measure is relevant as well as the poverty numbers. The use is to develop the poverty measure and to collect and archive the poverty outcomes for 'book-keeping' purposes to provide a database for other areas of government. The functions of the products are then the archival functions, the collection of facts about the population for which the poverty measure is important by allowing the facts to be understood. The poverty numbers function as entries to the database and the archive which permit the further collection of data.

The fourth domain is also within the institutional domain and includes such stakeholders as the different agencies of ministries which are confronted with poverty; these include the Ministries of Finance, Economic Affairs, Social Policy and Health. To them poverty measures are relevant because they form a decision tool for

allocating resources and identifying the poor. The poverty numbers are relevant too, for they can identify the areas for policy programmes, whether on a national, regional or local level. Moreover, the poverty numbers can highlight poverty and guide the design of policy and also of resource allocation. The numbers then serve as a gateway to the underlying information to understand the causes and target policy plans.

The fifth domain is the administration within the institutional domain. This can include those within government who set in motion the laws and apply the decisions made in parliament. For poverty, this may involve the various laws, taxes and welfare programmes that government offers to assist the poor. For administrators it is important to see the poverty measures as part of the tax and welfare system; the poverty measure becomes for them a decision tool for allocating and assigning tax redemptions or other welfare assistance.

The sixth domain involves the politicians within the government domain. As politicians are held accountable for their actions, the poverty numbers can be seen as an assessment of government performance. This is a difficult causality to assert, but when politicians use programmes and poverty measures to set goals and targets, in particular, the poverty measures and numbers become important as a basis for information and evidence. They serve as facts for the debate and persuasion process in parliament. They also provide the evidence to strengthen poverty programmes, or open the debate to dispute and assess the effectiveness of poverty programmes.

The seventh domain involves the electorate in the public domain, where poverty measures and numbers can function in the public debate. The stakeholders are civil society, the media, within which the journalists play the important role of using poverty numbers to inform the public. When poverty numbers come out, they act as providers of information on poverty and also raise the issue of poverty in a way which can ask for attention and awareness. This can result in debates where the numbers are used to urge action, raise parliamentary questions or put pressure on politicians. The numbers then function as information for the debate and a gateway for further information.

Within the public domain an eighth domain is formed by interest groups, which include the non-governmental organisations (NGOs), charity organisations and churches reaching out to the deprived in society. The poverty measures and poverty numbers are used to gain a voice and draw attention to the poor, to raise

awareness and to urge action, whether on the part of society or government. This means that the interest groups take up the cause of the poor. This is especially important because in contrast to the other stakeholders using the poverty measure and numbers, the 'poor' are not users even though they are the most important stakeholders. The providers of aid and other welfare programmes can seek to change the situation of the poor, but the poor themselves cannot easily use the measures actively to alter their situation, in particular because the 'poor' are not organised except by being established as such by the poverty measures.

2.6 Success and impact of the products

The commercial aspect provides a negative property of the analogy between running shoes and poverty measures. Whereas running shoes are a commercial product, poverty measures are not, making it impossible to locate profit margins, for example, as a way of identifying success. Nevertheless, the success and impact of the products can be identified, albeit in different ways. Whether a product is successful or not depends on one's point of view: success for the producers is different from success for the users. Even from the same perspective different notions of success can be relevant at the same time.

2.6.1 Producers' point of view

From the producers' point of view, for a commercial product to be successful, the indicators of success include the sales figures, profit, market share and how long the product sells. For running shoes this means that the aim is probably to sell many running shoes and thus have good sales figures, to gain a considerable market share whether in a local region or internationally, to set the optimal price and have operations run in a cost-effective way to maximise the profit made and to lengthen the time in which the product sells.

To the producers of poverty measures not all of these notions of success are applicable. The sales figures are not available as such; that is, poverty measures are not sold in the same way as running shoes, nor are the figures about the use of poverty measures as easily available. However, the success of poverty measures can be seen in three possible ways.

First, success can refer to frequent use, the number of times that people use the poverty measures. For the political domain, this can be through references in speeches, policy reports and design, legislation, presence on the political agenda,

questions in parliament, or other government documents, including the use of poverty measures as a way to set goals or assess policy.¹⁶⁸ For the academic domain, frequent use is reflected in the number of quotations and references. Success can be seen when the poverty measures are noted in academic journals, whether books focus on poverty measures or, more indirectly, whether poverty measurement has increased awareness and interest in poverty, which can then be seen in more publications on poverty, study programmes or degrees focusing on poverty, research programmes and research funding focusing on poverty. For the public domain, frequent use would be media coverage of the poverty measures, thus, newspaper headlines, articles in magazines, attention to the poverty measures in television documentaries or other types of media coverage. Moreover, a sign of success can be seen when the public interacts with poverty measures, or gets more involved in debates in newspapers, or even involved in local NGOs or community projects.

A second notion of success relates to the market share. The equivalent of large sales is a particular set of poverty measures and numbers being referred to, (thus, used) by many users. Success can mean that there are many users and different ones in different domains, which implies that the poverty measures and numbers have travelled far. The empirical evidence would then be references in academia, public debate, the media and the political domain. Moreover, the market share relates the product to the competitors. This implies first identifying the market as a whole. For running shoes this can imply the market for footwear, as opposed to the market for running shoes. The way in which the product relates to the competitors identifies the market share. For poverty measures, this means that the product can be seen as one of the products in the market for poverty information or, more specifically, in the market for different poverty measures. That is, the poverty measure can be compared either to other sources of poverty information, or to other poverty measures. The success can depend on the user's preference for numbers, a preference for a particular measure as opposed to its competitors.

A third notion of success is longevity, whether a product remains successful and can travel well over time. For running shoes, this can imply the continuing demand for and popularity of a shoe model which has become a standard and remains an enduring part of the collection. For poverty measures this implies that a

¹⁶⁸Michael Power. *The Audit Society: Rituals of Verification* (Oxford: Clarendon Press, 1997).

successful measure which is referred to for a long period after its production can be seen as more successful than one that is replaced or dismissed.¹⁶⁹ This is related to whether newer measures are more useful, accessible, or accurate. There is a negative analogy here which relates to the durability of the product. The running shoe model can remain popular, yet any particular pair of running shoes wears out and after a year of use, a new pair of shoes will be required. That means that a new pair of shoes will be bought, which may be different, or the same type, the latter identifying the success of the product. It is different for poverty measures and numbers, because both remain available for use and will not ‘wear out.’

Moreover, this is one of the differences between poverty measures and poverty numbers. Poverty measures being used over time can on the one hand be seen as a sign of their success, but may also imply the absence of a suitable alternative, or related to the need to stay with the same measure for comparability or practical reasons. This means that, even though there may be newer, more sophisticated or more accurate measures available, ‘older’ poverty measures can continue to be used for reasons of familiarity, software, or standardisation and comparison. Even when the theoretical debates point to the option of a new poverty measure, there will still be a delay for the transition to the actually producing and using new poverty measures.

The use of poverty numbers over time can be an indicator of the success of the poverty measures which produced them. This is also connected to the intrinsic property of the number being valid only for a certain point in time. The timing is part of the product; in other words, the date is connected to the value of the poverty numbers. That is, an outcome such as ‘10.9 million households in the USA are poor’ needs the addition that this number refers to the year 1963. Whether or not the measure is used again in 1965 does not diminish the value of the statement for 1963, even though for someone requiring information about 1965, the statement about 1963 is not applicable. However, to someone interested in the development of poverty, the 1963 value adds meaning to the 1965 value for it allows him to estimate the changes in poverty during this period. This brings up the different aims of the product and ways in which the users want to use it. That is, the aim may not be to sell to as many people as possible, but to provide a specialised product serves the need of

¹⁶⁹ However, this does not necessarily indicate that users agree that the product has good quality, as the US case in Chapter 4 demonstrates.

an expert user group. This then refers to the use of the product and whether the product is successful from the user's standpoint.

2.6.2 Users' point of view

Different criteria are relevant for the notion of success for users. This comes back to the different purposes users may have for the product, as identified in Section 2.5. Notions of success include whether the product serves a need, which for running shoes can vary from running performance to appearing fashionable. For poverty measures, these needs vary from providing an answer to fact-like questions such as 'how many people are poor at moment X in region Y?' Yet the needs may also include whether the measure accurately and precisely portrays poverty, whether the correct aspects are taken into account, whether the measure or numbers can serve as inputs in other models, or whether the number can serve in an argument, to create awareness, to press for action or to direct or assess policy design and implement policy programmes. Thus poverty measures can provide information for encyclopaedia-type statements versus analytical understanding versus action-focused policy advice.

This highlights the point that success for users is different from success for producers. The aims are different, too, for producers and for users. Rather than targeting many people, the producers may design a product for a specialist user group. The producers may be more interested in providing a useful product to serve their own need, such as statisticians in a census bureau. Yet the users of the number may exceed the employees of the census bureau and include for example charity organisations that need a strong basis to give a voice to the poor and demand action.

Other notions of success in use are an increase of references to poverty measurement and poverty as a theme, interest in and media coverage of the different aspects related to poverty, increasing awareness, more research into poverty, more funding for poverty research, which considers the underlying causes and establishes or changes poverty programmes and legislation. The main impact of the poverty measures can be seen when the measures or numbers incentivise change and provoke an impact through being used in the public domain and a political domain where people act upon the poverty numbers in order to reduce it.

2.7 Conclusion

This chapter discussed how the analogy with other products is useful in understanding the production and use of poverty measures and numbers. Poverty measures are analysed in an analogy with a commercial product which took running shoes as an example. In this way a framework was built by which to understand the relation between different actors, processes, outcomes and uses of poverty measures and numbers.

When unravelled, the production domain demonstrates the process and the actual production of poverty measures, which include the people involved and the decisions taken in the process.

There are different ways of seeing poverty numbers as products. Poverty measures are different products from actual poverty measurements, which are the levels of poverty at a certain time and place. In contrast to running shoes, poverty measures are non-rival and non-excludable. They are complementary to as well as competing with other sources of poverty information, while their quantitative approach has strong characteristics which allow poverty measures to add value differently from other sources of information on poverty.

After production, poverty measures can be marketed in different directions. The discussion followed the 'four Ps of the marketing mix,' namely, product, pricing, promotion and placement. The connection to the market is also influenced by the feedback mechanism of users interacting with producers and offering user innovation or producer-user co-construction.

The user domains form the market for poverty measures and numbers. There are users as well as those having a stake in the outcome or use. They can be seen in different domains and include those who were involved in the production, academics and people from the government domain: statistical and census departments, ministries, administration, politicians, the public domain including general public and interest groups and last but not least the 'poor' themselves. The different stakeholders use the products for different purposes and this in turn makes the product function in different ways. This analysis shows the diversity of one product, depending on the way in which the stakeholders use it.

The notions of success of the product may include sales figures, profit margins or market share for commercial products. These are not straightforwardly applicable to poverty measures, so I suggested alternative notions of success for

these, as frequent use, market share and longevity, depending on the stakeholders' point of view. From the users' point of view it depends on their aims for use.

This chapter argued that the analogy provides a useful way to understand poverty measures, because the combination of positive, neutral and negative properties of the analogy allow for the analysis from a new perspective. This provides a new conceptual framework to use for case study work and increases the understanding of the lesser known connection between the production and use of poverty measures. The following chapters will apply the product approach to four poverty measures.

3 Producing poverty facts: Booth's innovations in measurement

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3.1 Introduction

In the 1880s, impressions of the problems of poverty, drunkenness and crime caused fear of social unrest in London. Sensational newspapers built up the image of 'destitution, squalor and vice'¹⁷⁰ and poverty was viewed as a significant social problem in England. The impression of poverty was based on particular observations or newspaper articles, whereas the general scope of poverty was only assumed, not investigated.

Charles Booth was the first to thoroughly and systematically investigate poverty in London. For seventeen years he worked on his inquiry¹⁷¹ into the *Life and Labour of the People in London*,¹⁷² which was published in three editions, the last one containing seventeen volumes.¹⁷³ The aim was to get quantified information on poverty: 'facts.'¹⁷⁴ The result was disturbing: no less than 30.7 per cent of people in London were classified as poor.¹⁷⁵

More than a century ago, Booth's poverty research was important and impressive and to this day its products, methods and findings are still valid and relevant. His monumental work provided a wealth of data and in-depth information about the people of London which is so far unparalleled. He was the first to establish a 'line of poverty'¹⁷⁶ which has become the template for all subsequent poverty measures. Even though more sophisticated measures have since become available, poverty lines to establish who is poor and who is not have remained dominant. Most

¹⁷⁰ Booth. *Life and Labour of the People in London*, Albert Fried and Richard Martin Elman. 'Introduction (pp. xv-xxxix),' in *Charles Booth's London: A Portrait of the Poor at the Turn of the Century, Drawn from His 'Life and Labour of the People in London'*, ed. Charles Booth, Albert Fried, and Richard Martin Elman (Harmondsworth: Penguin, 1971). pp. xx-xxi.

¹⁷¹ Booth. *Life and Labour of the People in London*. vol. 17, p. 200.

¹⁷² Of the final edition the first series of the work is devoted to poverty in four volumes; the second series on Industry is in five volumes, the third volume on Religious Influences is in seven volumes, while the final volume offered the Conclusion and Summary. Even though the Poverty Series had fewer volumes than the other two series, they were the most important and most cited series. For the purposes of this thesis, this chapter focuses the discussion only on Booth's work on poverty, which is referred to as *Life and Labour*.

¹⁷³ Booth. *Life and Labour of the People in London*.

¹⁷⁴ Ibid. p. 6.

¹⁷⁵ Booth. *Life and Labour of the People in London*. pp. 20-1.

¹⁷⁶ Charles Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations,' *Journal of the Royal Statistical Society* 50, no. 2 (1887). pp. 328-9. As a small correction, this is actually two years earlier than Iceland and Fisher attribute the notion of the line of poverty. The textbook by John Iceland. *Poverty in America: A Handbook* (Berkeley, California: University of California Press, 2003). p. 16 footnote 34 refers to Gordon M. Fisher. 'An Overview of (Unofficial) Poverty Lines in the United States from 1904 to 1965,' Accessed 16 September 2011. p.3 who refers to Booth. *Life and Labour of the People in London*.

books on poverty measures to this day refer to Booth, and his work and archive provide a database which is still an essential source for many researchers.¹⁷⁷

Analysing Booth's work via the product approach brings out why his poverty measure was a remarkable and influential product and, in fact, demonstrates that it was a package of products, all innovative in important ways. Booth's work expanded the market by both deepening and broadening the existing information on poverty and social science.

Booth was an innovator and created a space from which modern approaches to poverty and development could emerge. With his development and use of social surveys for science he influenced the field of sociology. His findings shed new light on understanding poverty and its causes and disarmed arguments previously held that poverty was an individual problem or isolated from labour systems and society.¹⁷⁸

This chapter is the first to bring the product approach to a case study. Contributing to the large literature on Booth and his work, the product approach¹⁷⁹ places the poverty number in its context of production, distribution and use. The aim is to use this approach to assess Booth's innovation of presenting poverty facts in numbers and investigates the questions: why was Charles Booth's poverty measurement innovative and how did his work create an impact via its distribution and the researchers involved? First, the context in which Booth's work emerged is discussed in Section 3.2. Booth's own background is discussed in Section 3.3, while the production is described in Section 3.4, after which the innovative character of the work is analysed in Section 3.5. The focus shifts to the distribution in Section 3.6 and the further trajectory of Booth's work through his subsequent studies and the researcher whom he employed in Section 3.7, followed by the conclusion in Section 3.8.

3.2 Market: social and intellectual context

The functions of Booth's poverty numbers depend on what can be called the market for poverty numbers, which Booth refined, shaped and expanded. The historical circumstances in London had created an awareness and interest in poverty, the scientific climate focused on 'facts' in a positivist fashion and the existing poverty

¹⁷⁷ *Booth Archive at the London School of Economics and Political Science* (Accessed 16 September 2011).

¹⁷⁸ See Section 3.5.2.

¹⁷⁹ As developed in Chapter 2.

information was anecdotal and fragmented, creating the demand which Booth met by offering facts on poverty. Moreover, he created new markets for social science and its methods, which had not existed before.

3.2.1 Social circumstances in London in the 1880s

After the end of the nineteenth century, Britain experienced a period of relative economic decline.¹⁸⁰ The depression in the 1860s and 1870s increased the labour migration into the cities, with London as the destination of many migrant workers looking for a better life. However, the living conditions in London were harsh: city life held problems which were previously unknown to rural life. Industrialisation and urbanisation had made life increasingly complex, presenting problems of health, lack of space and poor labour conditions.¹⁸¹

In the 1880s, the problems of crime, unemployment and poverty made the established classes fear unrest, riots and the rise of socialism.¹⁸² On 8 February 1886 when large numbers of unemployed gathered in Trafalgar Square, a riot led to looting throughout the West End.¹⁸³ This further made opinion shapers and policy makers believe that there was a serious threat to public order.¹⁸⁴ 'This mighty mob of famished, diseased and filthy helots is getting dangerous, physically, morally, politically dangerous' the journalist George Sims wrote in 1889 in *How the poor live*.¹⁸⁵

The intellectual elite wanted to understand these changing dynamics of society, in particular since the economic condition of the poor seemed to deteriorate in spite of the rise in living standards for the country as a whole.¹⁸⁶ This situation provoked responses from philanthropists, professional social workers, housing and sanitary reformers and the middle-class socialists who were attracted to the Social

¹⁸⁰ Nicholas Crafts. 'Forging Ahead and Falling Behind: The Rise and Relative Decline of the First Industrial Nation,' *The Journal of Economic Perspectives* 12, no. 2 (1998).

¹⁸¹ Martin Bulmer, Kevin Bales, and Kathryn Kish Sklar. 'The Social Survey in Historical Perspective,' in *The Social Survey in Historical Perspective, 1880-1940*, ed. Martin Bulmer, Kevin Bales, and Kathryn Kish Sklar (Cambridge: Cambridge University Press, 1991), pp. 1-48.

¹⁸² Norman MacKenzie. 'Introduction to This Edition,' in *My Apprenticeship*, ed. Beatrice Webb (Cambridge: Cambridge University Press in co-operation with The London School of Economics and Political Science, 1979), pp. ix-xxxix. p. xxix.

¹⁸³ *Ibid.* p. xxix.

¹⁸⁴ Kevin B. Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth' (PhD, London, 1994). p. 250.

¹⁸⁵ Quoted in MacKenzie. 'Introduction to This Edition.' p. xxxiv.

¹⁸⁶ *Ibid.* p. xxxiii.

Democratic Federation and to the socialist Fabian Society.¹⁸⁷ As users of poverty information, these groups were joined by members of the general public, who became increasingly aware and concerned about poverty and related problems.¹⁸⁸ Thus, in general there was an increased desire to understand poverty and the changing features of urban life. The press influenced and nourished this attention by publishing sensational stories of crime, drunkenness and other morally reprehensible behaviour.

3.2.2 The scientific and intellectual climate

Paralleling these social transitions two shifts in epistemology took place in the scientific and intellectual climate of the nineteenth century. The first was a change in focus. Whereas in the eighteenth century scientists had been known for their philosophical, abstract way of introspective and deductive reasoning, in the nineteenth century the interest was in understanding society and how people actually lived. Instead of relying on introspection, the thinkers started to look at the world around them for answers and to base their knowledge claims on observations rather than theories. The second development was the shift towards Positivism, which aimed to liberate knowledge from metaphysical accounts or opinions. The idea was to show things as they were, without *a priori* systems of thought.¹⁸⁹

These changes in epistemology and the interest in social issues were manifested in what has been called the 'Age of Measurement in Economics' between 1830 and 1950.¹⁹⁰ From circa 1830 the acquisition and use of quantitative information about nature, technology and society, increased enormously.¹⁹¹ This was the time when the statistical movement arose.¹⁹² Statistical societies offered forums to discuss issues of society which were viewed as problematic. Statistical methods provided an objective quantitative approach which did not go beyond the facts¹⁹³ and was therefore appropriate for understanding the problems of society without opinions

¹⁸⁷ Ibid. p. xxxiii.

¹⁸⁸ Fried and Elman. 'Introduction (pp. xv-xxxix).'

¹⁸⁹ Ibid. p. xxiv.

¹⁹⁰ Judy L. Klein and Mary S. Morgan. *The Age of Economic Measurement, History of Political Economy Annual Supplement; 2001* (Durham, N.C., London: Duke University Press, 2001).

¹⁹¹ Theodore M. Porter. 'Economics and the History of Measurement,' in *The Age of Economic Measurement. History of Political Economy Annual Supplement ; 2001*, ed. Judy L. Klein and Mary S. Morgan (Durham, N.C., London: Duke University Press, 2001), pp. 4-22. p. 14.

¹⁹² Porter. 'Economics and the History of Measurement.' p. 17.

¹⁹³ Gigerenzer et al. *The Empire of Chance: How Probability Changed Science and Everyday Life*. p. 38.

or judgements. Instead of relying on biased journalistic accounts or sensational books, the societies aimed to base their knowledge claims on numbers and objective, quantitative, statistical methods.

It is important to note that originally 'statistics' meant something different from the current association of the word. Originally, statistics were not necessarily numerical: they meant 'a statement or view of the civil condition of a people.'¹⁹⁴ According to Cline Cohen, the origin of the word *statistics* stems from the verb 'to state.'¹⁹⁵ This meant that at bottom any discursive account of society could be seen as statistics. However, the German root of the word *der Staat* refers to society. In the early nineteenth century, numbers came to dominate statistics and in Britain by the 1830s statistics were being perceived as the numerical science of society.¹⁹⁶

Statisticians approached society scientifically to gather 'Facts.' In nineteenth century England the Statistical Societies associated numbers and quantification with objectivity and truth. Values and opinions were explicitly to be left outside the fact stating process. The London Statistical Society demonstrated this approach: their original aims were 'procuring, arranging and publishing Facts calculated to illustrate the Conditions and Prospects of Society.'¹⁹⁷ The idea was to base cases on facts rather than values. As their prospectus made explicit, they wanted to 'consider the facts first and exclude all Opinions, to confine attention rigorously to facts and as far as it may be possible to facts which can be stated numerically and arranged in tables.'¹⁹⁸

At this time mathematical probability was not yet established and probabilistic inferences from samples to a population were not used.¹⁹⁹ Statisticians used numbers to let the facts speak without complex manipulation. The central focus was on gathering and classifying numerical data and Booth aimed exactly to do this.

3.2.3 Poverty information before Booth

Before Booth's investigation, the information on poverty was fragmented and mostly anecdotal. Different types of product informed people about poverty, but they lacked

¹⁹⁴ Cline Cohen. *A Calculating People: The Spread of Numeracy in Early America*. p.150.

¹⁹⁵ Ibid. p.150.

¹⁹⁶ Gigerenzer et al. *The Empire of Chance: How Probability Changed Science and Everyday Life*. p. 38.

¹⁹⁷ Bulmer, Bales, and Sklar. 'The Social Survey in Historical Perspective.' p. 7.

¹⁹⁸ Ibid. p.9.

¹⁹⁹ Gigerenzer et al. *The Empire of Chance: How Probability Changed Science and Everyday Life*. p. 39.

the systematic coherence which Booth would present in his work on London. People knew about poverty via personal experience and observation or from the fiction and newspaper coverage which provided details about the lives of the London poor. These often idiosyncratic stories in aggregation formed a wider impression of poverty and helped shape popular opinion. Academic and state sources did not offer poverty facts adequately but Booth provided the missing measurements.

Among the widespread sources of information on poverty, such as fiction, newspapers and 'sensational' books, the popular work of Charles Dickens reinforced impressions of poverty by describing the situation of the poor in books including *Oliver Twist*²⁰⁰ and *Bleak House*.²⁰¹ Newspapers offered anecdotal impressions and interviews, such as Henry Mayhew's work *London Labour and the London Poor*.²⁰² This was initially published as a series of articles in the liberal newspaper *Morning Chronicle*, which focused on ordinary London life, and was later published on its own.²⁰³ Mayhew became known for his interviews and statistical surveys of the poor. According to Douglas-Fairhurst, Mayhew elevated the poor to the dignity of print, with objectivity and compassion.²⁰⁴ The work added up to two million words,²⁰⁵ bringing poverty to life in prose and statistics. Even though Mayhew aimed to order the impressions of the poor, his work is seen as 'at once [as] a towering historical record and a suggestive inquiry into cultural myth-making.'²⁰⁶ He used categories such as 'cheap workmen,' the 'unskilful,' 'the untrustworthy' and 'the inexpensive.'²⁰⁷ Mayhew's impressionistic and subjective approach was at odds with the newly emerging attempts to approach and measure social problems in a more objective manner,²⁰⁸ as Douglas-Fairhurst notes:

²⁰⁰ Charles Dickens. *Oliver Twist* (Oxford: Oxford University Press, 2010 [1838]).

²⁰¹ Charles Dickens. *Bleak House*, ed. Stephen Charles Gill (Oxford: Oxford University Press, 2008 [1853]).

²⁰² Henry Mayhew. *London Labour & the London Poor*, 4 vols. (London: Griffin, 1861).

²⁰³ Robert J. Douglas-Fairhurst. 'Introduction,' in *Henry Mayhew: London Labour and the London Poor: A Selected Edition*, ed. Robert J. Douglas-Fairhurst (Oxford University Press, 2010). p. xviii.

²⁰⁴ *Ibid.* p. xv.

²⁰⁵ *Ibid.* p. xvi.

²⁰⁶ *Ibid.* p. xxix.

²⁰⁷ *Ibid.* p. ii.

²⁰⁸ *Ibid.* p. xxxvi.

By 1834, statistical societies had been founded in Manchester and London, their declared aim being to gather and explain 'facts calculated to illustrate the condition and prospects of society,' which included statistics about industry and commerce as well as 'moral and social statistics' from areas such as housing, sanitation, education, crime, and pauperism.²⁰⁹

Mayhew offered something different. While he shared the professional statistician's desire to shuffle teeming human life into some kind of order, he was always more interested in quirky individuals than representative cases, and always happy to distract himself with the sort of characterful odds and ends that a more rigorous mind would have dismissed as statistically insignificant.²¹⁰

The sensational press is often cited as the impetus for Booth's project. Andrew Mearns's bestseller *The Bitter Cry of Outcast London: An Inquiry into the Condition of the Abject Poor*²¹¹ made poverty appear even worse than in Dickens's novels. The socialist leader H. M. Hyndman²¹² asked the Social Democratic League to conduct an inquiry on working class districts in London.²¹³ He published *England For All*²¹⁴ in 1881 in which he claimed that 25 per cent of London's workers were living in extreme poverty.

In addition to the above popular sources of poverty information, there were state sources of poverty information. The most obvious was the Poor Law administration. The Poor Laws can be traced back to 1536,²¹⁵ and a Royal Commission into the Operation of the Poor Laws had reported in 1832. However, the state did not have a standardised method of quantifying poverty. According to Alan Gillie, the 1870s and 1880s marked a change, in that 'the poor' became defined as a new class not recognized by the Poor Law. For the purposes of the Poor Law 'there was no need to identify people in poverty who were not destitute, or to devise a criterion distinguishing the poor (who were in poverty) from the better off.'²¹⁶

²⁰⁹ Ibid. p. xxxvi referring to Gertrude Himmelfarb. *The Idea of Poverty: England in the Early Industrial Age* (London: Faber, 1984). p. 348.

²¹⁰ Douglas-Fairhurst. 'Introduction'. p. xxxvi.

²¹¹ London Congregational Union. *The Bitter Cry of Outcast London: An Inquiry into the Condition of the Abject Poor* (London: J. Clarke & Co, 1883).

²¹² H. M. Hyndman founded and became leader of Britain's first socialist party the Social-Democratic Federation in 1881. Chushichi Tsuzuki. 'Hyndman, Henry Mayers (1842–1921), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition May 2006).

²¹³ Belinda Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth* (London: George Allen & Unwin Ltd., 1972). p. 70.

²¹⁴ H. M. Hyndman. *England for All: The Text-Book of Democracy* (London: E. W. Allen, 1881).

²¹⁵ G. R. Elton. 'An Early Tudor Poor Law,' *The Economic History Review* 6, no. 1 (1953).

²¹⁶ Allan Gillie. 'Identifying the Poor in the 1870s and 1880s,' *Economic History Review* 61, no. 2 (2008). p. 302.

Another state source of poverty information was via education policy. The 1870 Education Act provided for the establishment of school boards in London, to which the government delegated the work of determining whom to support with school fees. The School Boards were elected by ratepayers and therefore influenced in their decisions by local opinion. Even though their role changed according to changes in Education Acts and the accompanying discussions,²¹⁷ the School Boards were in a position to exempt poor people from school fees. For this they used a poverty scale,²¹⁸ but this was not consistent across Boards.²¹⁹ However, the work of these Boards was important as it would be the main initial source of Booth's poverty measurement.²²⁰

In sum, the market for poverty information before Booth offered various insights from different perspectives. Booth's research refined the information both in breadth – providing new types of information including numerical and classificatory – and in depth, deepening the understanding and creation of a new method and science to apply to social issues.²²¹

3.3 Producer: Charles Booth

3.3.1 Booth as initiator, investor, researcher and manager

As described in Chapter 2, the producers of a number determine the way in which the quantification process is set up and performed. Their background and aims influence the final product and the way in which the number functions after production. Charles Booth was the investor, initiator and producer of the poverty measurement at the same time. This sets his measures apart from others which have emerged within state or university settings. Moreover, he instigated the research as an individual using his own finances, which allowed him a certain freedom from institutional and traditional settings and allowed him freely to organise his research. His situation also allowed him to approach poverty as he wanted, an approach obviously informed by his personal background and interests.

He was born on 30 March 1840, the third son of a prosperous corn merchant and his first wife. Charles Booth grew up in a Unitarian family which was well

²¹⁷ Ibid. p. 306.

²¹⁸ Ibid. p. 306.

²¹⁹ Ibid. p. 307.

²²⁰ See Section 3.4.2.

²²¹ See Section 3.5 for a discussion of the innovative character of Booth's work.

connected to the commercial, dissenting and philanthropic 'aristocracy' in Liverpool. At the Liverpool Royal Institution School, where he was educated between 1850 and 1856, Booth distinguished himself only at arithmetic. This made his father note that, rather than going to university, 'he had better go into business.'²²² He held an apprenticeship at the shipping firm Lamport and Holt, where he received his business training. Six years later, in 1863, he and his elder brother Alfred established the partnership Alfred Booth & Co.²²³ They opened offices in Liverpool and New York, specialising in shipping skins and leather. Their business was prosperous and the company established a successful steamship line connecting England to North and Latin America.²²⁴ Booth's income increased considerably through their commercial activities.

His interests went beyond business, however, and included political, religious, philosophical and social issues. His political aspirations failed when he unsuccessfully campaigned as a Liberal parliamentary candidate in 1865. During his campaign he canvassed in the slums of Toxteth, where he was confronted with shocking poverty. This may have influenced his sense of obligation and civil responsibility to help the poor and improve social conditions. Even though he did not refer explicitly to this experience, what it revealed can be linked to his interest in researching on the extent and causes of such poverty. He distanced himself from the philanthropic traditions of the Liverpool bourgeoisie, which he described as 'the useless shell of an old world society.'²²⁵ Instead, he wanted to know what poverty meant and to avoid the sense of 'helplessness'²²⁶ in approaching the problem of poverty and the poor.

Moreover, Booth was affected by the philosophy of Positivism. He came to believe that the clue to intellectual truth and human betterment lay not in theology but in a new 'scientific' understanding of both the natural world and human and social relationships. In 1870 he wrote of his conviction that the 'principles of Positivism will lead us on till we find the true solution of the problem of

²²² Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. p. 31-2 as quoted by Jose Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator, in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition January 2008).

²²³ *Records of the Booth Steamship Co. Ltd.* (Accessed 15 September 2011), *ibid.* Access date 1 June 2006.

²²⁴ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²²⁵ Booth, quoted by T. S. Simey and M. B. Simey. *Charles Booth: Social Scientist* ([London]: Oxford University Press, 1960).

²²⁶ See Section 3.3.2.

government.²²⁷ This conviction and the impact of Positivism persisted throughout his work.

In 1871 he married Mary Catherine Macaulay, who was known as a clever and widely read woman.²²⁸ She encouraged him further to engage in some form of intellectual challenge other than running of the family business.²²⁹

Booth's involvement in social investigation started in 1884 when he analysed the census returns for allocating the Lord Mayor of London's Relief Fund. In 1886 came the first meeting to prepare the inquiry into poverty in London, the project which would make him a renowned social investigator, one of the 'founding fathers of social survey.'²³⁰ The inquiry was an individual initiative, solely dependent on private funding from Booth's successful business. This inquiry would last for seventeen years and result in three editions of the *Life and Labour*.²³¹ The work brought together his talents and interests: arithmetical skills, discontent with philanthropy, his hopes of developing a more 'scientific' approach to the study of society and his strong sense of personal and civic duty.²³²

While he continued to manage the shipping business and work on the *Life and Labour*, he served on numerous committees. He was active in the committee in charge of the 1891 census, the Royal Commission on the Aged Poor in 1893 and on the Royal Commission on the Poor Law in 1907. During 1893-1894 he was the President of the Royal Statistical Society.²³³ His contributions were acknowledged by his appointment as Privy Councillor in 1904 and Fellow of the Royal Society. The Universities of Cambridge, Liverpool and Oxford awarded him honorary degrees. He died on 23 November 1916²³⁴ and his memorial tablet in St. Paul's Cathedral was set up in 1920.²³⁵

²²⁷ Simey and Simey. *Charles Booth: Social Scientist*. p. 48.

²²⁸ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²²⁹ Ibid.

²³⁰ Simey and Simey. *Charles Booth: Social Scientist*. p.247.

²³¹ Booth. *Life and Labour of the People in London*.

²³² Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²³³ Charles Booth. 'Life and Labour of the People in London: First Results of an Inquiry Based on the 1891 Census. Opening Address of Charles Booth, Esq., President of the Royal Statistical Society. Session 1893-94,' *Journal of the Royal Statistical Society* 56, no. 4 (1893).

²³⁴ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²³⁵ *The Times*, 'Memorial to Charles Booth. Mr. Chamberlain's Tribute,' 16 December 1920, p. 15, Issue 42595; col C.

3.3.2 Aims of the inquiry

Booth's situation was different from that of other poverty researchers. As a successful businessman he had his own means. He initiated and organised the large-scale research project by himself. As an individual producer, his reasons to embark on such a project were not predetermined by an institutional embedding, nor were its aims. His aims have been subject to debate in the secondary literature, and so has the issue of whether his findings were influential in the treatment of poverty. The debate has tried to link his work to possible aims and its political impact. However, the impact of numbers is notoriously difficult to prove, let alone numbers whose aims are not specified.

The literature does not provide a consensus on Booth's aims: exactly why he focused on the analysis of the condition of the London poor remains unclear.²³⁶ It is difficult to prove the importance of Booth's measures by isolating a number and searching for its impact. However, as the product approach will demonstrate, both his aims and his numbers can be seen in a broader context. Therefore, the way in which this chapter contributes to the literature is that it views Booth's poverty measurement as producing a package of innovations²³⁷ which have had an impact via their distribution²³⁸ and also via people, the researchers who aided Booth.²³⁹

Although Booth lived in wealth all his life, he was exposed to poverty when he electioneered in Toxteth. Indeed, he often visited the slums of the East End of London, where he observed the behaviour and hardship of the poor, ate in the 'coffee palaces' and attended missions and music halls.²⁴⁰ His impressions of poverty were different from the contemporary views, which took a strong moral and sensational sentiment. He viewed the reports of social workers, journalists, missionaries and radicals as inspired by religious or political ideology or a desire for sensationalism.²⁴¹ In contrast, as a positivist he wanted to demarcate knowledge from subjective opinions.

Fried and Elman propose that Booth wanted to correct the exaggerated image brought forward by Hyndman,²⁴² who had claimed that one fourth of the population

²³⁶ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²³⁷ See Section 3.5.

²³⁸ See Section 3.6.

²³⁹ See Section 3.7.

²⁴⁰ Fried and Elman. 'Introduction (pp. xv-xxxix).' p. xx.

²⁴¹ *Ibid.* p. xx.

²⁴² *Ibid.* p. xxi.

was poor. Norman-Butler describes how Charles Booth found this claim sensational and exaggerated and had told Hyndman so. In addition, he had said that he would undertake an elaborate inquiry at his own expense, being certain that he could disprove Hyndman's estimate.²⁴³ 'Booth was obliged to collect the data for himself in the absence of any usable statistics, and as his great enquiry developed, he found that grinding poverty was even more widespread than Hyndman had suggested.'²⁴⁴

As mentioned, Booth argued that poverty was the problem of all problems.²⁴⁵ In addition, he believed that, to be solved, every social problem must be broken up and adequately stated.²⁴⁶ Thus, Booth's aims went beyond studying poverty: the larger project was to create facts on the way that the people in London worked and lived. Besides poverty, Booth's project also investigated industry and religious life – its approach to life and labour in London was therefore holistic.²⁴⁷

Judging the poverty information available, Booth aimed to convince everyone that his views were more accurate and reliable than those of social workers, journalists, missionaries and radicals.²⁴⁸ His goal was to create a correct and accurate account of poverty. Therefore he sought to be open-minded and avoid prejudice. In particular, he wanted to avoid the moral questions²⁴⁹ which had tended to dominate previous accounts of poverty. His thorough description of the method, cross checking with other data and justifying the attempt to avoid presuppositions, aided the search for objectivity.

Booth chose a scientific inquiry and used the latest statistical and quantitative techniques to yield objective outcomes.²⁵⁰ Moreover, he worked in the 'Age of Measurement' in which the focus on quantification was widely shared in the economic realm. His focus on numbers was evident in his resolution 'to make use of no fact to which I cannot give a quantitative value.'²⁵¹ He believed in the possibility of understanding the world as it was and viewed quantification as a useful tool to the

²⁴³ Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. pp. 73- 4.

²⁴⁴ MacKenzie. 'Introduction to This Edition.' pp. xxiv-v.

²⁴⁵ Kevin Bales. 'Charles Booth's Survey of *Life and Labour of the People in London 1889-1903*,' in *The Social Survey in Historical Perspective, 1880-1940*, ed. Martin Bulmer, Kevin Bales, and Kathryn Kish Sklar (Cambridge: Cambridge University Press, 1991), pp. 66-110. p. 66.

²⁴⁶ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 375.

²⁴⁷ For this thesis, the present case study focuses on the part of his work which deals with poverty.

²⁴⁸ Fried and Elman. 'Introduction (pp. xv-xxxix).' p. xxi.

²⁴⁹ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 327.

²⁵⁰ Fried and Elman. 'Introduction (pp. xv-xxxix).' p. xxi.

²⁵¹ Booth. *Life and Labour of the People in London*. Vol. pp. 5-6.

claim of being 'truth' instead of opinion. He was aware of the wealth of this information and that many sensational stories can be drawn from the notebooks. He stated that everyone knew that there was poverty, destitution, hunger, drunkenness, brutality and crime. His aim, however, was to present the factual status of poverty²⁵² in a quantitative way. Booth wrote that his object was

(...) to attempt to show the numerical *relation* which poverty, misery, and depravity bear to regular earnings and comparative comfort, and to describe the general conditions under which each class lives.²⁵³

Booth aimed to observe the facts of life through a scientific and objective lens, for which he highly valued the instrument of statistics. In connection with census enumeration it is possible to record 'some simple facts by which the position and manner of life of each family could be measured.' He indicates that they yield 'comparisons of great social interest and open up a large field of inquiry into the actual structure of society.'²⁵⁴ Beatrice Webb,²⁵⁵ who was an important collaborator and researcher and would later establish her own career as a social reformer,²⁵⁶ described his approach to facts and attempts to connect them to popular views:

Indeed, if he had a bias as an investigator, it was in favour of the unlikely and unpopular explanation of a given series of facts. And combined with intellectual curiosity was the positivist conception of the service of man.²⁵⁷

According to her, he was the embodiment of the 'mid-Victorian time-spirit – the union of faith in the scientific method with the transference of the emotion of self-sacrificing service from God to man.'²⁵⁸

In his discussion of the methods of social inquiry, Booth argued that the appropriate agency and the methods vary with the subject under investigation. In his view, this type of inquiry was best done by a single unaffiliated individual, as it was

²⁵² Ibid. p. 6.

²⁵³ Ibid. p. 6 Emphasis added.

²⁵⁴ Ibid. p. 26.

²⁵⁵ Beatrice Potter married Sydney Webb on 23 July 1892. John Davis. 'Webb, (Martha) Beatrice (1858–1943), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition May 2008). Depending on the date discussed she will be referred to as Beatrice Potter or Beatrice Webb.

In her book on her apprenticeship she describes her experiences and views the use of parts of her diary, which includes many insights for the purposes of this chapter. Beatrice Webb. *My Apprenticeship* (Cambridge: Cambridge University Press in co-operation with The London School of Economics and Political Science, 1979 [1926]).

²⁵⁶ Davis. 'Webb, (Martha) Beatrice (1858–1943).'

²⁵⁷ Webb. *My Apprenticeship*. p. 221.

²⁵⁸ Ibid. p. 221.

not advantageous to attempt to do such work officially, or by voluntary association. In general he claimed that the more public the character of the inquiry, the more impersonal should be the information aimed at.²⁵⁹

Booth expressed his interest in understanding urban life; he searched for facts and used quantification to this end.²⁶⁰ Moreover, in terms of ways of reasoning and understanding social concepts, he rejected economic law as deduced from abstract thinking. He believed in understanding the particular in order to understand the general, not the other way round. He aimed to find answers to society's problems in facts rather than in introspective abstract reasoning.²⁶¹

Booth was both similar to and different from other statisticians of his time. He was similar in his use of numerical facts to understand society. However, he was different in his focus on the individual, whereas other statisticians increasingly looked away from the individual to 'society.'²⁶² According to the French statistician Quetelet, abstraction was essential to social science and real individuals were too numerous and diverse to study in order to understand a social phenomenon.²⁶³ In contrast, Booth believed that only by looking thoroughly at individuals and their situations was it possible to establish the real facts of life and use these to understand society. He focused on understanding particular cases of poverty so as to understand the general phenomenon of poverty. Thus he aimed to understand society by examining the individual and aggregating the numbers, not by looking away from the individual to the aggregate. The following quotation shows his belief in basing generalisations on facts alone:

²⁵⁹ Booth. *Life and Labour of the People in London*. p. 33.

²⁶⁰ Booth recognised the increased complexity of urban life, which asked for a better understanding. He almost poetically states: 'It is in town and not in country, that 'terra incognita' needs to be written on our social maps. In the country the machinery of human life is plainly to be seen and easily recognise; personal relations bind the whole together. The equipoise on which existing order rests, whether satisfactory or not, is palpable and evident. It is far otherwise with cities, where as to these questions we live in darkness, with doubting heart and ignorant unnecessary fears, or place our trust with rather dangerous confidence in the teachings of empiric economic law.' Booth. 'Life and Labour of the People in London: First Results of an Inquiry Based on the 1891 Census. Opening Address of Charles Booth, Esq., President of the Royal Statistical Society. Session 1893-94.' p. 591. This quotation emphasises that he saw important differences between life in towns and life in the country and that these needed better understanding.

²⁶¹ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' pp. 375-6

²⁶² Gigerenzer et al. *The Empire of Chance: How Probability Changed Science and Everyday Life*. p. 39.

²⁶³ *Ibid.* p. 40-41.

[the] intensive method of investigation should go hand in hand with the extensive. Without a full comprehension of unexpressed details, general statements are always lifeless and often misleading; without some trustworthy generalisation – some ground plan of classification, by which, as in the drawers of a mineralogist's cabinet, details can be classified and seen in their proper place – elaborations partly thrown away.²⁶⁴

Thus, it can be seen that the aim of his inquiry was not only to create facts, but also to develop a thorough method of inquiry. The goal was to create an instrument which would allow for the careful examination of the social balance.²⁶⁵ He expressed the hope that his methods would 'tempt and rouse the invention of further tests touching other springs and opening wider vistas: comparing, checking, correcting, each by each, till we win firm ground and reduce the possibilities of error to a minimum.'²⁶⁶ Given the major impact of Booth's inquiry on subsequent social survey methods and on the establishment of social science as a discipline, this hope was clearly fulfilled.²⁶⁷

Booth clarified his aims and perspective at the end of the presentation of his first paper at the Royal Statistical Society in 1887. First, he argued that the discussion of poverty was currently confused and dominated by an unscientific approach:

It is the plan of agitators and the way of sensational writers to confound the two in one, to talk of 'starving millions,' and to tack on the thousands of the working classes to the tens or perhaps hundreds of distress. Against this method I strongly protest, and I do so all the more that I am deeply in earnest in my desire that the conditions under which the mass of the people live should be improved, as well as that of those who now suffer actual distress. To confound these essentially distinct problems is to make the solution of both impossible; it is not by welding distress and aspirations that any good can be done.²⁶⁸

Booth then said that he wanted to ensure that the discussion of poverty was based on an objective understanding of the problem:

²⁶⁴ Booth. 'Life and Labour of the People in London: First Results of an Inquiry Based on the 1891 Census. Opening Address of Charles Booth, Esq., President of the Royal Statistical Society. Session 1893-94.' p. 590-1.

²⁶⁵ Ibid. p. 591.

²⁶⁶ Ibid. p. 591.

²⁶⁷ See Section 3.5.

²⁶⁸ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' pp. 375-6.

To relieve this sense of helplessness, the problem of human life must be better stated. The a priori reasoning of political economy, orthodox and unorthodox alike, fails from want of reality. As its base are a series of assumptions very imperfectly connected with the observed facts of life. We need to begin with a true picture of the modern industrial organism, the interchange of service, the exercise of faculty, the demands and satisfaction of desire. It is the possibility of such a picture as this that I wish to suggest, and it is as a contribution to it that I have written this paper.²⁶⁹

The significance of Booth's poverty findings has been debated in the secondary literature.²⁷⁰ On the one hand, they are viewed as having negligible influence on social policy; on the other, they are viewed as being a crucial influence on the growth of the welfare state.²⁷¹ Davidson argues that the survey had no significant impact on government action or investigation.²⁷² He notes that whilst there was interaction between official investigations and research from individuals, as well as organisations such as relief agencies, trade unions, chambers of commerce, churches and statistical societies, there is little evidence that the form or findings of the social survey movement before 1930 were formally taken into account.²⁷³

However, others argue that Booth's work has had an impact not only in terms of his direct findings, but also through an increased awareness and knowledge of the problem and also the understanding of poverty. In turn, these have changed the issues on the political agenda. This is argued by Kevin Bales, who acknowledges that while there is little evidence that explicit reference was made to the numbers, the implicit impact of Booth's work was 'quietly powerful.'²⁷⁴ He concludes that the poverty study was powerful because its results were regarded as true. This is Booth's contribution to an existing debate. The facts were not debated, but their meaning and interpretation were.²⁷⁵ This is the package of products which Booth offered in addition to the facts. Bales argues that the research 'put power into the hands of those outside government to influence the agenda of policy.'²⁷⁶ The political function of

²⁶⁹ Ibid. p. 376.

²⁷⁰ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

²⁷¹ Ibid.

²⁷² Roger Davidson. 'The Social Survey in Historical Perspective: A Governmental Perspective,' in *The Social Survey in Historical Perspective, 1880-1940*, ed. Martin Bulmer, Kevin Bales, and Kathryn Kish Sklar (Cambridge: Cambridge University Press, 1991), pp. 1-48.

²⁷³ Ibid. p. 360.

²⁷⁴ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth', *ibid.* p. 265.

²⁷⁵ Ibid. p. 428.

²⁷⁶ Ibid. p. 428.

the poverty findings can be seen as channelled through others, decidedly including those involved in Booth's research.²⁷⁷ Moreover, his work was influential in changing the way that people thought about poverty and society. The impact further spread through the development of social science methods and the establishment of a form of social science which could build upon social survey methods,²⁷⁸ combining sources to establish facts on social concepts. Therefore the aims and impact of Booth's work go far beyond numbers and their direct impact.

3.4 Production of the poverty measurement

As an individual producer, Booth had the first mover advantage and the freedom to prepare and develop his research project as he thought best. The producer's choices were essential because they determined the method, material, categorisation and resulting poverty numbers. His mode of research and his engagement with his sources demonstrate the way in which he produced his facts. He collected and categorised data from School Board Visitors and other sources such as the census. Acquiring and analysing knowledge enabled him to establish eight social classes.²⁷⁹ These classes were connected to monetary values which established the poverty line as one of the facts of the package of products which Booth innovated. This in turn made it easier to identify and aggregate poor individuals, to a total of 30.7 per cent of Londoners.²⁸⁰

3.4.1 Approach and method

After preparatory meetings in 1886, the pilot study of the investigation took place in Tower Hamlets in 1887. Booth presented the first results at the Royal Statistical Society on 17th May 1887,²⁸¹ where he mentioned that the proposed inquiry concerned the conditions and occupations of the people of London.²⁸² The general plan was to divide the entire population of London by districts and by groups of trades. Subsequently, in each district a local inquiry and in each group of trades a

²⁷⁷ See Section 3.7.

²⁷⁸ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth'.p. 428.

²⁷⁹ See Section 3.4.3.

²⁸⁰ See Section 3.4.4.

²⁸¹ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.'

²⁸² Only a part of the whole project was directly focused on poverty, but it was the first and most important part of the work. As this thesis focuses on poverty measures, the rest of the inquiry is not discussed in depth, but this is not to imply that it was not important work.

trade inquiry were to be made. Showing the working conditions, he believed, would indirectly reveal the living conditions. He approached the investigation of society by developing a systematic way of establishing objective findings, by using what he called 'the double method' to secure accuracy through cross-checking and improve understanding of the results of each.²⁸³

The initial inquiry presented at the Royal Statistical Society in 1887 entailed the study of half a million people in Tower Hamlets. Booth justified focusing his research on this area of London by his claim that it was 'supposed to contain the most destitute population in England and to be, as it were, the focus of the problem of poverty in the midst of wealth, which is troubling the minds and hearts of so many people.'²⁸⁴

During this initial presentation Booth elaborated on his methods. He started with the object and the method of the inquiry. He worked with districts and groups of trades, using a division like that in the census and then dealt with each district by a local inquiry and with each group of trades by a trade inquiry.

The principal object of the district inquiry would be to show the conditions under which the people live, but it would also give their employments; the principal object of the trade inquiry would be to show the conditions under which the people work, but it would indirectly deal with their manner of life.²⁸⁵

He continued to claim that the work was feasible even for one man 'as much of it is already being done piecemeal and only needs putting together.'²⁸⁶ However, the research unfolded into a seventeen-year project involving twenty researchers,²⁸⁷ during which his methods became more elaborate and enhanced.

For example, while Booth initially claimed that he only brought existing material together, he also started collecting his own data during the project. The 'raw material' on which the ultimate findings were based, was the information from the house-to-house visitations by School Board Visitors. He initially did not solicit them to collect any information, but instead used the reports available and interviewed the

²⁸³ 'The double method would provide a check upon the results of each and much light be thrown upon the one inquiry by the other.' Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 326.

²⁸⁴ *Ibid.* p. 374.

²⁸⁵ *Ibid.* pp. 326-7.

²⁸⁶ *Ibid.* pp. 326-7.

²⁸⁷ See Section 3.7.

Visitors.²⁸⁸ Therefore, he claimed that the information was already there.²⁸⁹ In addition, he mentioned using other available information and assistance from relieving officers, rent-collectors, officers of the Charity Organization Society (COS) and others.²⁹⁰

What also changed throughout the project was that initially he
(...) preferred to avoid personal investigation and (...) rather made it my
object to put together that which could be had from those whose life is
spent amongst the people they describe.²⁹¹

He therefore chose to rely on experts, first, the School Board Visitors, but later also other expert researchers;²⁹² but he added his own collection of data, for example, by interviewing the School Board Visitors and walking through the boroughs with police officers.

He combined and cross checked his sources including census papers and interviews with census officers, extended and verified by other witnesses: teachers, superintendents of artisans' dwellings and rent-collectors, sanitary inspectors and relieving officers, ministers of religion, district visitors, the COS and other philanthropic agencies. The interviews were supplemented and verified by his personal observation or that of his secretaries, making it 'a rule to see each street ourselves' 'where [we] had been living in imagination.'²⁹³ Indeed, Booth actually lodged and became acquainted with the people of classes C, D and E.²⁹⁴

Thus, his phrase of 'only putting it together' does not do justice to his analytical and thorough engagement with the material. Even though he humbly described his abilities as 'I build well with other people's bricks',²⁹⁵ he not only classified and grouped data observations to provide a database, but let his analytical mind and his ability to connect data, themes and concepts bring the information together. Moreover, in his further communications he presented the information using tables, diagrams and maps to clarify and add depth to his findings.

²⁸⁸ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 327.

²⁸⁹ Ibid. p. 327.

²⁹⁰ Booth. *Life and Labour of the People in London*. p. 37

²⁹¹ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 327.

²⁹² See Section 3.7.

²⁹³ Booth. *Life and Labour of the People in London*. p. 25.

²⁹⁴ Ibid. p. 158.

²⁹⁵ Webb. *My Apprenticeship*. p. 216.

3.4.2 Raw material: School Board Visitor reports as initial sources

Booth used different 'raw materials', supplemented by his own data collection, for the various parts of his London study. As mentioned above, for the 'Poverty Series,' he used the reports of the School Visitors Board, supplemented by his own interviews of these house-to-house visitors. He elaborated on their 'special and careful inquiries into all cases in which there is any question of the remission of school fees'²⁹⁶ justifying the source and acceptability of the information. For the Industry series he used questionnaires and interviews with workers, trade union leaders and employers and workhouse records. The 'Religious Influences Series' were based on questionnaires, interviews, visits to churches, reports of local communities, police notebooks, information on housing, information on rents and local government.²⁹⁷

He justified the School Board Visitors as a valid source on several grounds. One, they had expertise because they spent their lives amongst the people whom they described and most had several years of experience. Moreover, the visits were regular: at least once a year and often with additional visits; thus, the Board Visitors became acquainted with the people they described. Compared with other agencies focused on a particular class or condition, the School Board Visitors, Booth claimed, were likely to have less distortion of judgement. Their information might have been less exact, but it related to all classes of people since they scheduled every street and every family with children of or below school age.

He argued that the type of information that the School Board Visitors gathered was appropriate because their duty was to inquire into cases of possible remission of school fees. Therefore, questions of employment and earnings were central to the information which they collected.²⁹⁸ In addition, he used the sources of the Census which he had investigated before 1886, when he began his project. 'Statistical framework outlining the whole, and defining the parts of the gigantic undertaking, was afforded by the census figures of 1881, afterwards corrected and amplified by the more detailed census of 1891.'²⁹⁹

²⁹⁶ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' pp. 327-8.

²⁹⁷ Booth. *Life and Labour of the People in London*. Second and Third series.

²⁹⁸ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' pp. 327-8.

²⁹⁹ Webb. *My Apprenticeship*. p. 224.

On the basis of this information Booth produced a table detailing the 450,000 inhabitants of Tower Hamlets. The table was divided into two main sections, the first based on employment and the other based on eight classes, which were derived according to means and position.³⁰⁰ He grouped the sections into classifications noting the proportion of poor and very poor in each. His definition was:

By the word 'poor' I mean to describe those who have a fairly regular though bare income, such as 18s. to 21s. per week for a moderate family, and by 'very poor' those who fall below this standard, whether from chronic irregularity of work, sickness, or a large number of young children.³⁰¹

True to positivist fashion he continued:

I do not here introduce any moral question: whatever the cause, those whose means prove to be barely sufficient, or quite insufficient, for decent independent life, are counted as 'poor' or 'very poor' respectively; and as it is not always possible to ascertain the exact income, the classification is also based on the general appearance of the home.³⁰²

He combined the different labour categorisations with the poverty classifications:

These definitions connect themselves closely with the Sections of labour: Nos. 1 and 2 being all considered 'very poor;' No. 4 representing exactly the definition of 'poor'; while No. 3 (irregular labour) contains both poor and very poor; and No.5 is almost entirely above the line of poverty.³⁰³

Thus, while he established a poverty line, it is for two reasons not a sharp one: the line is actually a range (18s-21s per week) and it was not the sole determinant of poverty since he took into account survey information as well, such as the appearance of the home, for the assessment of poverty.

Booth connected his findings to popular views and thoughts on poverty. In relation to the prevailing concern that alcohol consumption was a significant factor in poverty he commented that:

³⁰⁰ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 328.

³⁰¹ Ibid. p. 328.

³⁰² Ibid. p. 328.

³⁰³ Ibid. pp. 328-9.

Cases of large amounts spent in drink are intended to be excluded as not properly belonging to the poor, but the result of ordinary habits of extravagance in drink in inducing poverty are not considered any more than those of other forms of want of thrift.³⁰⁴

He continued to work on East London and Hackney in 1887 while he received assistance from volunteers and expanded his research team. On 15th May 1889 he gave a paper with new findings at the Royal Statistical Society.³⁰⁵ Two years later he presented a paper on the whole of London,³⁰⁶ after which the first edition of *Life and Labour* was published.³⁰⁷ An important innovation of the London-wide study was Booth's use of poverty maps.³⁰⁸

3.4.3 Categorisation into eight classes

Booth took 'the herculean task of re-classifying'³⁰⁹ what he found in the census. The description of the eight classes which Booth developed formed the core of his poverty classification and measurement.

The first group that he established is called *A The lowest class* and 'consists of some (so-called) labourers, loafers, semi-criminals, a proportion of the street sellers, street performers and others.'³¹⁰

The second class, B, are those with *Casual Earnings*. The description of this group seems to resonate with the stereotypical image of the poor: 'These people as a class, are shiftless, hand-to-mouth, pleasure loving and always poor; to work when they like and play when they like is their ideal.'³¹¹ In his description he also linked this group to alcohol and makes comparisons with the other groups in this respect: 'There is drunkenness amongst them, more among the women than the men, I am told; but drink is not their special luxury as with the lowest class, nor is it their passion as with a portion of those with higher wages and irregular but severe work.'³¹²

³⁰⁴ Ibid. p. 328

³⁰⁵ Charles Booth. 'Condition and Occupations of the People of East London and Hackney, 1887,' *Journal of the Royal Statistical Society* 51, no. 2 (1888).

³⁰⁶ Booth. 'Life and Labour of the People in London: First Results of an Inquiry Based on the 1891 Census. Opening Address of Charles Booth, Esq., President of the Royal Statistical Society. Session 1893-94.'

³⁰⁷ Booth. *Life and Labour of the People in London*. 2 vols & Appendix.

³⁰⁸ See Section 3.5.3.

³⁰⁹ Webb. *My Apprenticeship*. p. 242.

³¹⁰ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 329.

³¹¹ Ibid. p. 329.

³¹² Ibid. p. 329.

Class C has *Intermittent Earnings* and 'is a pitiable class, consisting largely of struggling, suffering, helpless people.'³¹³ This group is more closely linked to the labour system than to individual choices influencing their poverty: 'They are the victims of competition and on them falls with particular severity the weight of recurrent depression of trade.' He refers to charity organisations here and to the scepticism needed for charity assistance: 'it is very necessary to insist (as the Charity Organisation Society untiringly does) on some evidence of thrift as a precondition or consequence of assistance, otherwise what is given will assuredly increase the evil it attempts to relieve.'³¹⁴

Class D has *small regular earnings*: the whole of Booth's Sections of Labour 4 (regular work, low pay) are here counted together with the 'poor' from Booth's Sections of Labour 5 (regular work, ordinary pay), most of the home industries and a contingent from 'the poorer artisans, small shops, &c.'³¹⁵ This description seems to imply that the classes are established in relation to the Sections rather than established separately and then 'double checked.' He adds:

No class deserves greater sympathy than this one; its members live hard lives very patiently and are schooled by their lot in the virtues on which their existence depends. The hope of improved condition for each individual of his class lies only in their children, who, as they grow up and begin to earn money, make life easier for the parents.³¹⁶

Thus while his classes are set up according to differences in earnings, he also offers insights into the reality for the families in question including whether or not the situation or the efforts of the individuals are to be encouraged and supported.

Class E has *regular standard earnings*, which are the bulk of Booth's Sections of Labour 5 (regular work, ordinary pay) together with most artisans, street sellers and general dealers, shopkeepers, home manufacturers and small employers. With 45.5 % of the population counted in this class, it forms the largest.³¹⁷ Booth comments on the attitude of this class assistance:

³¹³ Ibid. p. 332.

³¹⁴ Ibid. p. 332.

³¹⁵ Ibid. p. 332.

³¹⁶ Ibid. p. 332.

³¹⁷ Ibid. p. 332.

The wage earners of Class E take readily any gratuities which fall in their way and the whole class will mutually give or receive friendly help without sense of patronage or degradation; but against anything which could be called charity their pride rises stiffly.³¹⁸

He treats this class as perhaps also a majority in the whole of London and even the whole of England.³¹⁹

Class F is the *Higher Class Labour* which includes foremen and responsible men, described as well-to-do and contented men, together artisans in regular work. In contrast to the latter, the former are noted to see things from the employer's point of view and are also more contented.³²⁰

Class G is the *lower middle class*: 'Shopkeepers and small employers, clerks, &c and the lower professional class',³²¹ described as hard working, sober and energetic.³²²

Class H is the *Upper Middle Class*, 'shortly defined as the "servant keeping" class.'³²³

Booth finally reminds the reader that the dividing lines between all these classes are indistinct,³²⁴ which makes it unclear how he actually established who belongs to each group. However, this is the nature of the activity of categorisation and his classes do demonstrate his analytical and thorough approach.

Booth further uses the sections to differentiate between the employments of heads of families. He first focuses on married men, male heads of families, in sections broadly classified as labouring, artisans, locomotion, assistants, other wages, manufacture, dealers, refreshment, salaried, or no work. He also classifies and identifies lists of females and their profession and distinguishes between them as heads of families and as 'other adult women.'³²⁵

The next step was the description by Districts, in which he offered a view on the different geographical areas of London, with detailed information on the status of

³¹⁸ Ibid. p. 333.

³¹⁹ Ibid. p. 333.

³²⁰ Ibid. p. 333.

³²¹ Ibid. p. 333.

³²² Ibid. p. 333.

³²³ Ibid. p. 333.

³²⁴ Ibid. p. 333.

³²⁵ Ibid. p. 330.

the buildings and surroundings; for example, Mile End has wide streets and fresh air, while Poplar suffers from fevers resulting from 'foul rubbish.'³²⁶

This differentiation prepares the way for the tables in which Booth presents the numbers per district. He also offers maps to clarify the main orientation of the Tower Hamlets area in relation to the whole of London, which was investigated in a similar way.

While he presents the main information first, he continues to compare the different districts, which means a further transformation of insight from the tables. He presents percentages about the different districts and the Sections of labour. While he offers a variety of perspectives from which to understand the areas for workers and classes, he remains modest and continues to add descriptions as well: 'I cannot hope to make the rows of figures in this table as luminous and picturesque to every eye as they are to mine, and yet I am not content without making an attempt to do so.'³²⁷ In terms of dock labour, he characterises the extreme irregularity of hours forcing over-work and enforced leisure, which 'is not favourable to moral or physical health.'³²⁸ Booth commented on the way in which opportunities affect the unemployed 'Whatever the duty of society may be towards these men, the offer of work has been shown over and over again not to fulfil it.' He then adds the nuance that in his mind there is also a group that is 'not unemployed, [but] (...) badly employed.'³²⁹

To further establish the objective nature of his findings, Booth uses a special section as well as an appendix³³⁰ to clarify the basis and accuracy of the figures.³³¹ He acknowledges the imperfections of any results to be obtained from the figures of a single district of London and presents plans for continuing research to establish knowledge about the whole of London. In his first presentation he hesitates to draw any conclusions:

³²⁶ Ibid. p. 359.

³²⁷ Ibid. p. 361. He also adds a separate description of what he calls 'Special subjects' to include docks employment, the Jews, sweating system and middle-men, working women and the unemployed. Ibid. pp. 363-373.

³²⁸ Ibid. p. 365.

³²⁹ Ibid. pp. 370-2.

³³⁰ Booth's appendix describes the data supplied by the School Board Visitors combined with the population statistics for each parish contained in the census of 1881. Ibid. p. 377.

³³¹ Ibid. pp. 373-5.

I do not know whether the facts disclosed will be considered surprising, or which of them may be so considered. Many of them have been a surprise to me, and they have too recently emerged from the mass of figures in which for many months they lay hid, for me to have fully grasped their significance.'³³²

He emphasises that his leading idea on social issues is not to act upon it straightaway, but to 'break up every social problem to be solved or even to be adequately stated.'³³³ His preliminary conclusions are that in the area which he investigated 65 per cent of the population lived above the line of poverty, on the line were 22 per cent, while 13 per cent fell well below the line and were in chronic poverty. Nevertheless, in response to the idea of social unrest,³³⁴ it was to be feared that

This is a serious state of things, but not visibly fraught with imminent social danger, or leading straight to revolution. That there should be so much savagery as there is, and so much abject poverty, and so many who can never raise their heads much above the level of actual want is grave enough; but we can afford to be calm, and give to attempts at improvement the time and patience which are absolutely needed if we are to do any good at all.

These quotations illustrate Booth's aims, preliminary conclusions, humility and emphasis on knowing the facts before even the word action can be considered.

3.4.4 Quantitative product: the poverty measure and resulting poverty number of 30.7 per cent

Thus, based on the information from the School Visitors Board, Booth categorises and then establishes the general condition of all the streets in London and divides the people into eight classes, as can be seen in Figure 3-1. Excluding homeless people, indoor paupers and criminals,³³⁵ he classifies those living in poverty as belonging to classes A, B, C and D. He explains that by the word 'poor' he means 'to describe those who have a sufficiently regular though bare income, such as 18s to 21s per week for a moderate family.'³³⁶ The result of these classifications and calculations is that 30.7 per cent of the people in London were classified as living in poverty.

³³² Ibid. p 375.

³³³ Ibid. p 375.

³³⁴ See Section 3.2.1.

³³⁵ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 329.

³³⁶ Ibid, Booth. *Life and Labour of the People in London*. Vol. 1, p. 33.

As can be seen, while he aimed to use only information which was quantifiable, his poverty series were based on qualitative data, which were the reports from and interviews with School Board Visitors together with his insight and analysis. As he initially used already existing information, he produced the poverty line by classifying, aggregating and translating the information into numbers to get the percentage of poverty. Only later did he start to collect new data using survey techniques and his own observations through house-to-house visits.

Figure 3-1 Booth's classification of poverty³³⁷

Class	Description	Label	Percentage of people in London	Percentage above and under the poverty line
A	The lowest class of occasional labourers, loafers and semi-criminals	Lowest class	8.4 %	In poverty: 30.7 %
B	Casual labour, hand-to-mouth existence, chronic want	Very poor		
C	Intermittent earnings – poor, small earnings irregular employment	Poor		
D	Small regular earnings, ill paid	Poor		
E	Regular standard earnings – Working class, comfortable	Above the line of poverty	51.5 %	In comfort: 69.3 %
F	Higher class labour, fairly paid			
G	Lower middle class		17.8 %	
H	Upper middle class			

3.5 Innovative character of Booth's package of complementary products

Through his innovative work on quantification, Booth produced facts on poverty in London during the 1890s. In addition, the numbers also served as a conduit for the creation and travel of complementary products. Therefore, Booth produced a package of products both complementary and innovative. In many ways these complementary products had a more important and longer lasting impact than the numbers themselves. Booth's facts on numbers allowed for the analysis of poverty

³³⁷ Booth. *Life and Labour of the People in London*. pp. 20-21.

and the establishment of facts on causes, improving the understanding of poverty as a social concept. Using his classification Booth produced the poverty maps illustrating where the different classes were located in London. Moreover, he offered innovations to social science methods and established social science within the academic realm, a heritage which is still present.

3.5.1 Facts on numbers: quantifying poverty

Booth offered a quantified approach to poverty and produced a classification which yielded facts on poverty and on the proportion of the poor within London's population. The major fact that Booth is known for is the 30.7 per cent of Londoners living in extreme poverty. This number was not produced from a macro approach; instead, it was built bottom-up via survey methods which Booth developed. It was derived from his classification system which, as seen in Section 3.3.3, identified those in poverty, deep poverty and in other categories and then connected these classes to monetary values, thereby establishing a poverty line (itself an important innovation).

He initially used sources already available such as the School Board Visitors, who in their surveys took note of a variety of factors to establish whether the children in the area had to pay for school.³³⁸ After his preliminary work on Tower Hamlets, where he said the work consisted of assembling information already available, he later also added his own collection of data, by walking through areas of London with local police officers and employing researchers to go round other areas. These thorough local surveys, incorporating the work of Booth's researchers and the police, helped to lay the foundations for new social survey methods.³³⁹

The data which Booth thoroughly investigated, collected and used, were very detailed. His work was based on more than 450 notebooks including interviews, observations and statistics.³⁴⁰ Through his classification and quantification he provided a rich data set. Numerical outcomes included the identification of the poor, which in turn made it easier to arrive at the numbers of poor Londoners and, in relation to the whole, the proportion of the poor in the capital. He produced his facts in formats of numbers, diagrams, classifications, maps and anecdotal information and

³³⁸ See Section 3.4.2.

³³⁹ Later described in the term 'wholesale interviewing' coined by Beatrice Webb (see Section 3.5.4).

³⁴⁰ The Booth collection held by the Archives Division of the British Library of Political and Economic Science (London School of Economics) contains 450 original notebooks from the survey.

examples, enhancing his thorough representation of the life of Londoners. Furthermore, his method not only measured poverty, but also allowed him to define and analyse it: he established a method of classifying the poor, using a system of cross references, which was based on relating classes, districts and groups, applicable to any geographic area within London. The information from the geographic areas was then aggregated to form a wider impression of poverty, for the area and London as a whole.

Booth perceived his findings as true, he was confident of their validity. Whereas he spoke modestly and cautiously throughout his work,³⁴¹ he expressed a firm belief that his method and enquiry could present the 'facts' on London.³⁴² For Booth, the numerical method had created a true image of London's poor. The fact that 30.7 per cent of London's population was poor surprised him, not least because according to some authors Booth had set out to measure poverty to rectify the exaggerated estimate put forward by H.M. Hyndman. This founder and leader of the Social Democratic Federation had estimated that 25 per cent of Londoners were poor.³⁴³ To strengthen his argument, Booth initially preferred to paint things 'too dark rather than too bright to avoid the chance of understating the evils with which society has to deal.'³⁴⁴

In his first presentation about the East End, he presented the findings that far more than twenty five per cent was living in poverty. Even though he commented that many facts had surprised him, he was 'unknowing about whether, or which of, the facts would be considered surprising.'³⁴⁵ The first results did not seem to impress him. The cautious formulation may be due to the preliminary character of the findings, illustrated as well by his comments that he still hesitated to draw firm conclusions. Moreover, at this stage he had only taken into account the East End, an area notorious for poverty, so the overall image could still be less severe. Later, in 1902, when he had finished working on all areas of London, the results showed that the percentage of poor people was in fact 30.7 of Londoners. This finding obliged

³⁴¹ His initial paper was presented as 'a specimen (though, I know, a very imperfect specimen) of a single local inquiry' Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 327.

³⁴² Ibid. p. 327.

³⁴³ Fried and Elman. 'Introduction (pp. xv-xxxix).' pp. xx-xxi and Simey and Simey. *Charles Booth: Social Scientist*. pp. 69-70.

³⁴⁴ Booth. *Life and Labour of the People in London*.

³⁴⁵ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 375.

him to add that the results had made him cautious not to overstate either, because 'the actual poverty disclosed was so great, both in mass and in degree and absolutely certain.'³⁴⁶ The result showed a 'serious state of things,' but according to him they should not be related to imminent social danger or revolution. He urged calm and patience.³⁴⁷ Booth influenced and changed the way in which many Londoners saw their world,³⁴⁸ and his views on the causes of poverty were accepted as facts: 'The Poverty Study, in particular, was seen as powerful, powerful because its results were regarded as true.'³⁴⁹

3.5.2 Facts on causes: understanding poverty

Booth offered innovation not only via the numbers, but also through the way it was measured and in terms of viewing and establishing poverty as a social and economic problem rather than a personal or moral one. His work in effect was an attack on the notion of the 'undeserving poor.' The names of the categories as described in Section 3.4.3 as well as the classes into which he divided the population are indicative of both his analysis and the causes of poverty. Further, his work suggested that poverty should not be seen merely as an isolated individual problem, but rather as the result of more general causes, often related to weaknesses in the labour system. Only class A from Figure 3-1 contains individuals who can be held accountable for their poverty, for in other classes the structure and system of labour can be blamed.

In his detailed descriptions Booth was able to directly relate information about specific groups and classes to the problems of poverty, to show how and why certain groups were more prone to move into and out of poverty. His systematic approach therefore produced poverty information and improved the awareness and understanding of poverty – it added both breadth and depth to the notion of what poverty was and what caused it. With this he built knowledge and understanding which went from individual experiences of poverty to understanding poverty as a social concept. Figure 3-2 reproduces Booth's analysis of causes and demonstrates that great poverty is mostly due to 'questions of employment' (55 per cent) followed

³⁴⁶ Booth. *Life and Labour of the People in London*. p. 5.

³⁴⁷ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 375.

³⁴⁸ Kevin Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907,' *Journal of Historical Sociology* 9, no. 2 (1996). p. 113.

³⁴⁹ *Ibid.* p. 136.

by 'questions of circumstance' (27 per cent) and 'questions of habit' (14 per cent) while only four per cent are 'loafers.'

Figure 3-2 Booth's analysis of causes³⁵⁰

Analysis of Causes of "Great Poverty" (Classes A and B).

		Per Cent.		Per Cent.
1. Loafers	—	—	60	4
2. Casual work	697	43	878	55 { Questions of employment
3. Irregular work, low pay ...	141	9		
4. Small profits.....	40	3		
5. Drink (husband, or both } husband and wife)..... }	152	9	231	14 { Questions of habit
6. Drunken or thriftless wife	79	5		
7. Illness or infirmity	170	10	441	27 { Questions of circumstance
8. Large family	124	8		
9. Illness or large family, } combined with irregu- } lar work..... }	147	9		
	—	—	1,610	100

Analysis of Causes of "Poverty" (Classes C and D).

		Per Cent.		Per Cent.
1. Loafers	—	—	—	—
2. Low pay (regular earnings)	503	20	1,668	68 { Questions of employment
3. Irregular earnings	1,052	43		
4. Small profits.....	113	5		
5. Drink (husband, or both } husband and wife)..... }	167	7	322	13 { Questions of habit
6. Drunken or thriftless wife	155	6		
7. Illness or infirmity	123	5	476	19 { Questions of circumstance
8. Large family.....	223	9		
9. Illness or large family, } combined with irregu- } lar work	130	5		
	—	—	2,466	100

Therefore, his work responded to an important distinction made by the COS between the deserving and the undeserving poor.³⁵¹ The idea behind this was that indiscriminate charity would pauperise the poor and encouraged fraud and beggars.

³⁵⁰ Booth. *Life and Labour of the People in London*. p. 147.

³⁵¹ MacKenzie. 'Introduction to This Edition.' p. xxxvi.

The rhetoric and prejudices connected to these concepts of poverty turned the poor into stereotypes and treated poverty as an individual issue.

However, Booth disputed the idea that someone was poor because, for example, he worked in the docks, drank, or did not take responsibility for working. He developed his knowledge from the individual experiences of the people whom he surveyed. The individuals could be classified and categorised without preconceptions, facilitating an in-depth aggregation of views on 'the poor,' without treating them as a homogeneous group.

Through his work he was able to draw conclusions and show that poverty was a systematic and structural problem connecting the individual to social and economic circumstances and systems. Booth's work showed that chronic poverty was due to an unsatisfactory economic system rather than to an unsatisfactory character on the part of those who suffered from it.³⁵² For example, the way that dock labour was organised led to insecurity because work was not guaranteed every day, which adversely affected the ability of dock workers to manage their income effectively. Booth also showed that poverty was dependent on whether there were children in the household and that the households headed by single mothers were the poorest and most unlikely to move out of poverty.³⁵³ Booth's work implied that most poverty was a social rather than an individual problem and he offered facts on numbers and facts on causes to substantiate this.

Thus, Booth produced facts first on the specific situations of poor individuals, second to classify groups and third to establish understanding of the aggregate. As a positivist he was interested in separating facts from opinions so as to see the real state of things, but he went even further than this. He not only established facts, he went on to link the findings so as to dismiss stereotypes and common perceptions of the situation of an individual in poverty, as well as of 'the poor' as a group and the causes of poverty. He could dismiss opinionated concerns by facts. Booth produced a variety of facts which were innovative and provided further understanding of how poor individuals lived. This was enabled by his production process, via in-depth investigation and gathering empirical material for each person, by building his analysis and understanding from the empirical level up to the aggregate. His way of

³⁵² This is how Beatrice Webb concluded and incorporated it throughout her work, *ibid.* pp. xxxvi-xxxvii.

³⁵³ A similar finding is made by Orshansky (see Chapter 4) for the USA.

aggregation and summarising information formed another innovation: he localised poverty visually in his poverty maps.

3.5.3 Poverty maps

One of Booth's best-known products has been his poverty maps,³⁵⁴ street maps of London which are coloured in seven different colours, each colour representing a poverty class.³⁵⁵

They were introduced in the first edition of *Life and Labour of the People of London* for which they were based on the information from the School Board Visitors and his classifications. For the later editions of *Life and Labour of the People of London* he fully revised the maps to include the information which he gathered in his surveys. He used the notebooks, which were then revised by his social investigators. They referred to School Board Visitors, the Parish Relieving Officers for each Union, the agents of the COS throughout London, the clergy and their district visitors for the poorer parts and they accompanied policemen on their walks throughout London.³⁵⁶ They recorded impressions and comments by which to revise the original maps.³⁵⁷

Figure 3-3 below shows a detail from one of the maps. As can be seen, the maps brought the numbers and tables to life in a striking visual manner – people could look at the maps, find where they lived or areas and streets that they knew and note how Booth categorised them. Poverty became visible on the maps and in doing so made an important point by demonstrating that poverty in London was not confined to a few well-defined areas but was scattered throughout the city, present even in those areas of London that were not perceived to be poor. They thus, for example, disproved the popular perception that poverty was located solely in the East End.³⁵⁸

³⁵⁴ Booth Archive at the London School of Economics and Political Science. *Poverty Maps of London* (Accessed 16 September 2011).

³⁵⁵ His classes for quantification were the base for the hand-colouring of the streets in the maps, even though they did not correspond entirely. Rosemary O'Day and David Englander. *Mr Charles Booth's Inquiry: Life and Labour of the People in London Reconsidered* (London; Rio Grande, Ohio: Hambledon Press, 1993). p.47.

³⁵⁶ Booth. *Life and Labour of the People in London*. pp. 16-7.

³⁵⁷ Booth Archive at the London School of Economics and Political Science.

³⁵⁸ 'The situation described in The Bitter Cry of Outcast London in 1883, or to which the Fabians referred in their first tract, *Why Are the Many Poor?* was due to a special set of circumstances affecting the East End.' MacKenzie. 'Introduction to this Edition.' p. xxxxi.

Since the time of production the maps have been one of Booth's well-known and most used products. Webb stated that the series of maps were 'perhaps the most impressive achievement and certainly the most picturesque outcome of the whole enquiry.'³⁵⁹ The maps have continued to be used ever since, most recently distributed by the Charles Booth Online Archive, which offers a searchable resource and access to archive material from the Booth collections of the Library of the London School of Economics and the Senate House Library.³⁶⁰

Indeed, since Booth, studies of poverty have typically used poverty maps as a means to easily convey their findings to specialist and above all non-specialist audiences. Two contemporary examples are: the 'Child Poverty Map of Britain,'³⁶¹ from which the London map was further distributed in the press,³⁶² and 'The Global Poverty Mapping Project of The Socioeconomic Data and Application Center.'³⁶³ The pervasiveness of Booth's poverty maps and the poverty map more generally, is easily illustrated through Google searches: more than a hundred years after its production, 'Booth's poverty maps' yielded over 2.7 million results on Google,³⁶⁴ whilst 'poverty map' yielded an astonishing 48 million results.³⁶⁵ These results demonstrate that Booth's poverty maps and their descendants have found many users well after their initial production.

³⁵⁹ Webb. *My Apprenticeship*. p. 239.

³⁶⁰ *Booth Archive at the London School of Economics and Political Science*.

³⁶¹ *End Child Poverty Website*. *Child Poverty Map of the United Kingdom* (Accessed 16 September 2011).

³⁶² *Evening Standard online*, 'London Child Poverty Map Reveals Shocking Tale of Two Cities,' 16 March 2011, p.

³⁶³ *Socioeconomic Data and Application Center*. *Global Distribution of Poverty* (Accessed 16 September 2011).

³⁶⁴ Google search for Booth poverty maps yielded 2,700,000 results. *Google Search for Booth Poverty Maps* (Accessed 16 September 2011).

³⁶⁵ Google search for poverty map yielded 48,000,000 results. *Google Search for Poverty Map* (Accessed 16 September 2011).

Figure 3-3 Detail of Booth's poverty map plus legend³⁶⁶



³⁶⁶ A combination of colours - as dark blue or black, or pink and red - indicates that the street contains a fair proportion of each of the classes represented by the respective colours. *Booth Archive at the London School of Economics and Political Science. Poverty Maps of London.*

3.5.4 Social science method

Through his thorough and systematic approach, Booth's methods provided the first social science approach to poverty. His method of social survey taking and extrapolating information from direct observation was as innovative as the provision of the numerical facts themselves.

Empirical material was gathered and produced quantitatively but also qualitatively. The complementation of quantitative information by qualitative was an important shift and his careful consideration of his material justified his findings as trustworthy.

He aggregated information by investigating the lives of Londoners in depth, then establishing a method of classifying, which he next used to establish who was poor. Subsequently those in poverty could be aggregated to offer an overall view of poverty in London, a level of analysis which had not existed before Booth. As Webb describes:

Charles Booth's invention was the combination of the census with the personal enquiry into each family, for the double purpose of making his survey co-extensive with the entire field, without selection and of uniting the qualitative with the quantitative information thus obtained. By this cross-verification of wholesale statistics by personal observation of individual cases and the verification of the sum of individual cases obtained by personal observation by the statistics of the census, Charles Booth was not only able to produce a complete series of qualitative as well as quantitative descriptions of the households and their environment, but also to present this triumph of personal observation in a statistical framework covering the whole four millions of people.³⁶⁷

An important innovative aspect of Booth's work was his insistence on considering the condition of poverty in all its aspects. His work sought to establish all the factors that impact upon poverty, which then allowed for a better understanding of its causes. His survey methods contribute to this. Booth's methods for social studies were exemplary. Webb was impressed by the new instrument which she called the method of wholesale interviewing:³⁶⁸

³⁶⁷ Webb. *My Apprenticeship*. p. 227.

³⁶⁸ *Ibid.* p. 227.

[Since] a subtle combination of quantitative and qualitative analysis is a necessary factor in social studies, it may well be that Charles Booth's elaborate plan of wide statistical verification of data obtained by detailed observation of individual families and social institutions will be recognised as an indispensable basis of sociological science.³⁶⁹

Booth's methods were followed for studies elsewhere and the advancement of poverty research. For example, the first comment after Booth's second presentation at the Royal Statistical Society was by Frederick Scott, a member of the Council of the Manchester Statistical Society. He was inspired to investigate poverty in Manchester as 'the best tribute he could pay to the value of Mr. Booth's work'³⁷⁰ of which the results were published in the *Transactions of the Manchester Statistical Society for 1888-89*.³⁷¹ Benjamin Seebohm Rowntree's well-known work on poverty is directly related to Booth's though he adapted and altered Booth's method when investigating poverty in York.³⁷² In relation to the development of sampling techniques, the statistician Sir Arthur Lyon Bowley worked on poverty and introduced a design of sample surveys which contributed further to the advancement poverty research.³⁷³

3.5.5 Social science

Booth's work was not focused on politics or philanthropy alone; it helped to establish a modern social science. Beatrice Webb describes this in her well-known book *My Apprenticeship*, based on her diary:

I now come to a great enterprise which arouse my whole-hearted sympathy and admiration; an enterprise in which I played the minor part of an industrious apprentice. Here the impulse came neither from politics nor from philanthropy, but from scientific curiosity; from the desire to apply the method of observation, reasoning and verification to the problem of poverty in the midst of riches.³⁷⁴

Beatrice Webb was attracted to the Booth project because of its desire to establish a scientific understanding of 'what exactly was the condition of the people of Great Britain', hitherto unknown. She is in praise of the work: 'the grand inquest (...)

³⁶⁹ Ibid. pp. 216-7.

³⁷⁰ Booth. 'Condition and Occupations of the People of East London and Hackney, 1887.' p. 332.

³⁷¹ The Quarterly Journal of Economics. 'Notes and Memoranda,' *The Quarterly Journal of Economics* 4, no. 2 (1890).

³⁷² B. Seebohm Rowntree. *Poverty: A Study of Town Life* (London: Longmans, Green, 1922 [1901]). p.27.

³⁷³ R. G. D. Allen and rev. John Bosnell. 'Bowley, Sir Arthur Lyon (1869–1957), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

³⁷⁴ Webb. *My Apprenticeship*. p. 216.

seems to me to stand out as a landmark alike in social politics and in economic science.'³⁷⁵

In relation to economic science, Booth's approach was different, because he developed methods to reason upwards from empirics. His understanding of poverty was built up from the empirics, rather than being imposed on them. This was a break from the introspective reasoning which underlay disciplines such as economics, as the well-known economist Alfred Marshall pointed out in the discussion after Booth's first paper at the Royal Statistical Society.³⁷⁶ Webb describes Booth's method thus:

He made no attempt at history or even at describing contemporary development, but set himself to obtain, so to speak, an exact cross-section at a given moment, full from end to end of precise details, equally complete and equally microscopic over the whole field.³⁷⁷

Booth developed his methods for social surveys, which helped shape the discipline of sociology. His research and arguments relating to sociological processes can be seen in the table of classifications, his analysis and discussion of the situations of the people, and the way that he related his findings to popular opinion or generalisations to larger groups.

Webb sums up Booth's contributions to science as follows: he was a 'pioneer in social science'³⁷⁸ because he offered a good enough technique to obtain:

³⁷⁵ Ibid. p. 216.

³⁷⁶ See Section 3.6.1.

³⁷⁷ Webb. *My Apprenticeship*. p. 224.

³⁷⁸ Ibid. p. 244.

(...) a vision of the condition of the whole population, within a given area, at a given time.³⁷⁹ (...) Charles Booth showed us for the first time how best to combine the qualitative with the quantitative examination of social structure. By a masterly use of the method of wholesale interviewing (*i.e.* the use of a set of intermediaries who, in manageable number, were themselves acquainted with the whole aggregate of individuals to be investigated), amplified and verified by all sorts of independent testimony and personal observation of various parts of the immense field, he succeeded in making a qualitative examination of a magnitude never before attempted. By combining this with the merely mechanical enumeration of all the individuals in successive censuses, and by drawing out the eightfold indices of social condition that he had discovered, he was able to give to his qualitative categories a numerical measurement of an accuracy and over a field far greater than had ever before been attempted. In short, Charles Booth was much more than a statistician. He was the boldest pioneer, in my judgement, and the achiever of the greatest results, in the methodology of the social sciences of the nineteenth century.³⁸⁰

In conclusion, the variety and depth of his innovations form a large package of complementary products which helped Booth's work to travel, as the different products reinforced each other's validity and made his innovations better-known. Booth offered information that remained valuable on every level, from the notebooks to the individual thematic chapters, from the database, the conclusions and inferences, the social science method, surveys and approach, to the study of society more generally, including the empirical foundation created for reasoning and the way that statistics were offered as quantitative methods for society. Booth produced historical data, thematic reasoning and individual understanding of a group, class, district and area. He further built upon his individuals to produce knowledge on London as a whole, the labour system and the dynamics relating poverty to its context. His work became known and created an impact because the package of products travelled well.³⁸¹ This was influenced by the distribution as well as the people involved in Booth's poverty project, which are discussed in the next two Sections.

3.6 Distribution: presentations, books and press

For a number to be used in the political domain, or elsewhere, it needs to be known: unless people are aware of its existence and content, a number cannot be used. The

³⁷⁹ Ibid. p. 245.

³⁸⁰ Ibid. pp. 246-7.

³⁸¹ The notion that packaging can make facts travel well is one of the findings of the project on 'How Well do Facts travel?' Morgan. 'Travelling Facts.' pp.26-30.

measures and numbers need to reach the markets, for which different distribution channels exist. The distribution by which the findings are marketed influences how many people become consumers. Information is a particular type of product, because after it is introduced, information can be freely shared in informal ways which are difficult to detect afterwards. However, Booth offered more than numbers alone; he offered a package of innovative products which became well-known in his time³⁸² and has remained so ever since. The distribution of his work started with his communication within his own network, the presentations of the papers which were followed by discussions, the books which were quickly sold out and made up three editions over seventeen years, the last of which contained seventeen volumes, and the press which communicated the findings further to a larger group of consumers.

3.6.1 Presentations and discussions and books

Presentations at the Royal Statistical Society were a first modus of distribution. Booth presented papers describing his plans and the findings of his inquiries at the Royal Statistical Society: he presented his first paper on Tower Hamlets on 17th of May 1887,³⁸³ his paper on East London and Hackney on 15th May 1888³⁸⁴ and his first results on the whole of London on 21th November 1893.³⁸⁵

The reactions to the first paper presented at the Royal Statistical Society were mostly positive. While the discussion of the first paper already indicated positive reactions, Norman-Butler adds to this impression, noting that, despite initial laughter at Booth's pretensions, the Statistical Society was impressed by the remarkable contribution of the paper on 'The inhabitants of the Tower Hamlets' and that Booth was elected to their council.³⁸⁶ Further reactions included *The Morning Post*, which was impressed by the large scale of the research carried out by one man, while *Pall Mall* criticised the paper, stating that it read like 'a complacent and comforting bourgeois statement' (Norman-Butler adds that the editor of the gazette had publicised H. M. Hyndman's Inquiry).³⁸⁷

³⁸² *The Times*, 'Mr. Charles Booth Has Followed Up,' 17 May 1894, p. 6, Issue 34266; col E.

³⁸³ Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.'

³⁸⁴ Booth. 'Condition and Occupations of the People of East London and Hackney, 1887.'

³⁸⁵ *The Times*, 'Mr. Charles Booth on Life and Labour in London,' 22 November 1893, p. 11, Issue 34115, col D.

³⁸⁶ Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. p. 91.

³⁸⁷ *Ibid.* p. 91.

The most obvious distribution vehicles were the volumes of *Life and Labour* that were published in three editions. The first edition had two volumes and an Appendix,³⁸⁸ and rapidly sold out.³⁸⁹ The subsequent edition was entitled *Life and Labour of the People in London*, in nine volumes, and included Maps.³⁹⁰ The last edition expanded to no fewer than seventeen volumes.³⁹¹

The engagement with Booth's research was wide; it was formalised and connected to academia at the Royal Statistical Society. Jesse Argyle, Booth's secretary and co-worker,³⁹² owing to Booth's illness, read his paper on the first edition of *Life and Labour* on 21 November 1893.³⁹³ At this time the work was still on-going and Booth presented himself as humble and grateful for the chance to present the work in progress and be part of the discussion, convinced of the value of the input from those present. In addition, his research was aimed to reach everyone who was interested, not only those in research or a statistical society or otherwise academically engaged. The discussion which followed the opening address demonstrates a variety of comments in depth, as well as those expressing gratitude. The comments came from those active in the poverty field, together with professors and other researchers.

The findings of Booth's first paper on the Tower Hamlet pilot study were overall viewed as 'facts,' as the following responses illustrate. The chairman thanked him for the 'accurate statistical information.'³⁹⁴ The economics professor Alfred Marshall pointed out how important it was for economists to take into account 'these facts of life' instead of reasoning abstractly out of inner consciousness.³⁹⁵ In addition, he received recognition for the value of his microscopic study; it shed light on a narrow image which was not considered by those with large views on the population of the United Kingdom and the world.³⁹⁶ These comments can be seen as

³⁸⁸ Booth. *Life and Labour of the People in London*. 1889-92.

³⁸⁹ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth'.

³⁹⁰ Booth. *Life and Labour of the People in London*. 1892-7.

³⁹¹ Booth. *Life and Labour of the People in London*. 1902-3.

³⁹² See Section 3.7.7.

³⁹³ Booth. 'Life and Labour of the People in London: First Results of an Inquiry Based on the 1891 Census. Opening Address of Charles Booth, Esq., President of the Royal Statistical Society. Session 1893-94.'

³⁹⁴ Dr. T. Graham Baldour at the discussion of Booth's paper, Booth. 'The Inhabitants of Tower Hamlets (School Board Division), Their Condition and Occupations.' p. 392.

³⁹⁵ Professor A. Marshall at the discussion of Booth's paper, *ibid.* p. 392.

³⁹⁶ Professor Leone Levi at the discussion of Booth's paper, *ibid.* p. 394.

typical of their time and acknowledged Booth's aim of creating facts based on current data instead of abstract reasoning.

However, there were more critical responses as well. The presentation in decimals was said to be inappropriate because the percentages were only approximations.³⁹⁷ It was questioned whether the findings could be generalised, because not all cases were covered by the School Board Visitors.³⁹⁸ The School Board Visitors were thought to be biased, reporting the poor to be poorer and the rich to be richer than they actually were.³⁹⁹ Another suspicion was raised because School Board Visitors were not always welcome and the answers they received might have been given for the purpose of reducing school fees.⁴⁰⁰

In these replies it was also mentioned that all information ultimately comes from individuals and is therefore fallible.⁴⁰¹ Is it unclear whether the latter comment should be viewed as putting into perspective the dismissal of the finding, or, more fundamentally, as a dismissal of any claims to truth, no matter which scientific method is employed. It was argued that the findings should include other 'raw materials' such as the statistics on pauperism⁴⁰² and other independent investigations.⁴⁰³ In reply, Booth said that no one could be more conscious than he was about the imperfections of his paper and that he was thankful for the support and favourable responses.⁴⁰⁴

Remarkably, the discussion of his 1888 paper showed no reactions at all to the validity or otherwise of his findings. Perhaps this can be attributed to a different audience at the discussion, rather than the 'factness' of the results. However, the audience did discuss the causes and implications of the findings, which meant that his statistical facts were accepted and that his facts on causes were used and discussed. The discussion diverged in various directions, from the effect of taxes to overcrowding to the effect of machinery.⁴⁰⁵ Even though some fundamental objections were still made, his second paper had improved the method and Booth can

³⁹⁷ Professor Leone Levi at the discussion of Booth's paper, *ibid.* p. 394.

³⁹⁸ Major Cragie at the discussion of Booth's paper, *ibid.* p. 398.

³⁹⁹ Dr. G.B. Longstaff at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰⁰ Major Cragie at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰¹ Dr G.B. Longstaff at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰² Major Cragie at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰³ Mr. S. Bourne at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰⁴ Booth at the discussion of Booth's paper, *ibid.* p. 398.

⁴⁰⁵ Booth. 'Condition and Occupations of the People of East London and Hackney, 1887.' pp. 332-339.

be seen to have presented his work in a way that would sell the findings to the social scientists.

3.6.2 The press

The press was a second distribution channel. Although a crude measure, coverage by newspapers gives an indication of the spread of awareness of number to the general public. Booth's findings were treated as news and received ample press attention. One of the scrapbooks in the Booth archive shows 251 reviews, including coverage from nine countries⁴⁰⁶ indicating that his findings reached a large market.

The day after Booth's Presidential speech for the Royal Statistical Society *The Times* offered in-depth coverage of the speech as well as the content of Booth's paper. Parts of the speech were reproduced verbatim and the commentary from *The Times* tended to accept the work and findings of Booth.⁴⁰⁷ On 17th May 1894 *The Times* also reported on the follow up investigations into the facts and problems of pauperism. In its coverage *The Times* commented and literally copied Booth's summary from the article 'The aged poor in England and Wales.'⁴⁰⁸

Booth's findings were thus seen as newsworthy⁴⁰⁹ and as such reached a wide audience through newspaper coverage and reviews. Kevin Bales surveys the reviews of newspapers and concludes

In sum, though he was attacked as too socialistic by the right and not radical enough by the left, the general consensus was that Booth had made an important contribution to knowledge.

This quotation shows that the lack of political colour made his contributions more trustworthy: they were objective in the way that he had aimed them to be; in contrast to opinions, he had produced facts. Exactly this point resonates in Bales's account also: 'Most reviewers accepted that Booth's aim "has in the main been confined to showing how things are."' ⁴¹⁰ And, whatever the interpretation of the findings, 'virtually all reviewers accepted the findings as fact and distributed these facts

⁴⁰⁶ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth'. p. 254.

⁴⁰⁷ 'Mr. Charles Booth on Life and Labour in London,' 22 November 1893, p. 11, Issue 34115, col D.

⁴⁰⁸ Charles Booth. *The Aged Poor in England and Wales: Condition* (London: Macmillan, 1894).

⁴⁰⁹ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth'.p. 254.

⁴¹⁰ Booth. *Life and Labour of the People in London*. p. 592.

widely.'⁴¹¹ Booth's has thus successfully produced facts which have since been accepted and used as such.

The Times implied that Booth's figures and generalisations were accepted by the general public and were appreciated because they told something definite and decisive concerning the lives of the poor. They 'aroused in the minds of people who had never thought very seriously about the matter before a desire to do something to bring about a better state of things in poorer London and largely stimulated the keen constructive interest in all kinds of social questions.'⁴¹²

Newspaper obituaries of Booth's death 1916 give further evidence of the way in which the findings were taken. Even though post-mortem texts tend to be positively biased, they do give an insight into why a person is perceived in a certain way. The day after his death *The Times* reported the death of 'Mr. Charles Booth, pioneer of social studies.' The 'impact of his work was not easy to describe,' but 'profoundly affected public opinion on social questions.'⁴¹³ Booth's inquiry into the life and labour of the people in London had changed middle class attitudes towards poverty.⁴¹⁴ Before Booth's work, poverty had been treated from 'the limited personal point of view or from that of self-advertising sensationalism.'⁴¹⁵

The Times stressed that, using an entirely new method, Booth had set out to draw a picture of the exact conditions in which Londoners lived. His thorough and systemic approach had been geared towards finding 'facts' on poverty. Using a 'scientific' approach he had collected and classified a huge amount of detailed information about the lives of Londoners. His inquiry had been new, performed on a large scale and it introduced and formalized a method of impersonal inquiry.

Booth was well established within the wider network of academics, political committees and activists, which at the time had close connections. Booth and his work were widely acknowledged and his inquiry had 'for the first time revealed London to itself.'⁴¹⁶ His work was taken to be an exact showing of the conditions of

⁴¹¹ Bales and London School of Economics and Political Science. 'Early Innovations in Social Research: The Poverty Survey of Charles Booth'. p. 262.

⁴¹² *The Times*, 'Death of Mr. Charles Booth,' 24 November 1916, p. 6, Issue 41333; col C.

⁴¹³ *Ibid.*

⁴¹⁴ Raymond Williams. 'Foreword (pp. ix-xii),' in *Charles Booth's London: A Portrait of the Poor at the Turn of the Century, Drawn from His 'Life and Labour of the People in London*, ed. Charles Booth, Albert Fried, and Richard Martin Elman (Harmondsworth: Penguin, 1971). p. ix.

⁴¹⁵ 'Death of Mr. Charles Booth,' 24 November 1916, p. 6, Issue 41333; col C.

⁴¹⁶ 'Memorial to Charles Booth. Mr. Chamberlain's Tribute,' 16 December 1920, p. 15, Issue 42595; col C.

life for the people in London, as the text on the memorial slate in St. Paul's Cathedral reads:

Throughout his life, having at heart the welfare of this fellow citizens and believing that exact knowledge of realities is the foundation of all reform, he devoted himself to the examination and statement of the social, industrial and religious condition of the people of London.

Even years later the engagement with the public is made clear in the letter published in *The Times*. Jesse Argyle wrote a correcting letter to the editor in 1908 to make sure that no 'paragraphs, letters and reports of speeches' that appeared in the press would attribute to Charles Booth the statement that 12 million people were 'on the verge of starvation.' Argyle politely but firmly states that Booth never made any such statement and he clarifies the classes and the accompanying numbers and percentages. He also adds that these figures were first published seventeen years earlier.⁴¹⁷ These remarks demonstrate both that Booth's work provoked many reactions and that the editor considered the statistics important and timely enough to be repeated and clarified again. In addition, it shows interestingly that even a fact which can be seen as one which will most easily travel well, being a mere number, still did not travel accurately, since people took the proportion for London and applied it to the whole of England. This was in contrast to Booth's line of reasoning, which in a full sample went upwards from individuals; though it should be added that in later poverty measurement the proportions and sampling became more common aided by the improvements in statistics as a method and science.⁴¹⁸

As an example of even more recent coverage, even in 2006, 108 years after the first publication of the poverty findings, Booth's results and methods are referred to in the media. *The Economist* repeated Booth's inquiry using 2001 census data and found that although many areas in London have improved, some of the poorest areas in 2001 were also poor in 1898 too, and in almost exactly the same places.⁴¹⁹

3.7 Use of Booth's innovations by the researchers

In addition to the more obvious distribution channels described above, an important way in which Booth's work travelled and created its impact was via his subsequent activities and via the people involved in his work. Numbers are different from

⁴¹⁷ *The Times*, 'Mr. C. Booth on Poverty Statistics by Jesse Argyle,' 30 March 1908, p. 17, Issue 38607; col A.

⁴¹⁸ Amongst others via Bowley's work. Allen and Bosnell. 'Bowley, Sir Arthur Lyon (1869–1957).'

⁴¹⁹ *The Economist*, 'How London Has Changed in the Past 108 Years-and How It Hasn't,' 4 May 2006.

products insofar as using numbers also distributes them further, which therefore makes it difficult to distinguish distribution from use. Referring to a number can be seen as using the number, while this use can also distribute the number to other markets in which the users can pick up on it, and so forth. Moreover, the use of his poverty measurement is not limited to any actual reference to a number and includes employing the measurements, methods and insights in other ways. The social scientists whom Booth trained and involved in his research project took the work and insights with them in their subsequent careers, many of which involved activism for poverty alleviation. Thus, through the people who were involved in his project, not only the findings themselves, but the approaches, methods, mentality and understanding of poverty travelled in even more important ways and resulted in changes ranging from legislation on issues highlighted by Booth's facts on poverty causes to the approaches of social science.

Kevin Bales identified twenty people who contributed to Booth's project: Mary Booth,⁴²⁰ his wife, was the most closely involved and was as active as he although her work remained behind the scenes,⁴²¹ Jessie Argyle, George Arkell, Ernest Aves, Arthur Baxter, Graham Balfour, Clara Collet, George Duckworth, Stephen Fox, E.C. Grey, Harold Hardy, Octavia Hill (which was surprising because as one of the leaders of the COS her views were not in line with Booth's⁴²²), Esme Howard, James MacDonald, Beatrice Potter, David Schloss, Charles Skinner, Hubert Llewellyn Smith, Mary Tabor and R.A. Valpy.⁴²³ Beatrice Webb rhetorically questioned the effect which Booth had on his staff members:

And is it a mere coincidence members of his staff were, within a very few years of the publication of the completed edition in 1902-3, influentially associated with perhaps the two biggest experiments in public administration and public control in the interest of the manual workers that the century has yet seen?⁴²⁴

Some of the contributors to the project already had established careers but Booth's management of the project as well as his approach to poverty and empirical

⁴²⁰ Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907.' p. 113.

⁴²¹ Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. pp. 9-10. Bales confirmed this in his statement that 'Mary Booth served as an informal leader often managing in his absence.' Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907.' p 115:

⁴²² Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907.' pp.133-4.

⁴²³ *Ibid.* p. 117.

⁴²⁴. Webb refers to Hubert Llewellyn Smith and Ernest Aves who worked towards the unemployment insurance under the Insurance Act of 1911 and minimum wage legislation under the Trade Boards Act of 1909 (see Sections 3.7.3 and 3.7.5). Webb. *My Apprenticeship*. p. 255

material and analysis influenced their thinking. However, others, such as Beatrice Potter, Clara Collet and Hubert Llewellyn Smith, were young and worked on the project in between their university training and first formal jobs. Bales has argued that their work on the Booth project can be seen as apprenticeships in the 'art of social investigation' and that they used these skills in their following careers (see below) which would see them 'become masters in their own right.'⁴²⁵ Not only did Booth influence the intellectual interests and development of these young researchers, but he also helped to establish them in government posts.⁴²⁶

The biographies of the people involved in his project demonstrate influential social scientists, investigators and activists, pushing the boundaries of science, methods and implications for legislation. They were politically involved, leading political influence and social activism, as well as serving on committees and administration, influencing and creating new pathways for social science and communicating to the public via a variety of media. Below, a brief overview of the subsequent careers of Booth and six members of his team illustrates their activities and influence in four areas: political involvement, civil service and policy making, social activism and the development of modern social science. Booth used his work to influence the Old Age Pensions system, Unemployment Insurance and improvements in labour conditions. Beatrice Webb had a lasting legacy in both social policy and social science. Hubert Llewellyn Smith influenced Unemployment Policy, while Clara Collet had an impact on women's education and employment. Ernest Aves worked on wages and the casual labour market and David Schloss helped to shape the Unemployment Insurance. Moreover, Booth's work helped to educate social scientists, such as Jesse Argyle.

Obviously these subsequent careers cannot always have been directly connected with their work on Booth's poverty project, as this would be difficult to prove and indeed in some cases would be mistaken. Nevertheless, it is likely that Booth's ideas, concerns and methods did travel through them, even if only partially reflected, into many aspects of British political and social life and into the foundation or development of several aspects of the newly emerging social science disciplines.

⁴²⁵ Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907.' p. 135.

⁴²⁶ *Ibid.* p. 123.

3.7.1 Charles Booth

Booth's own use of his work and political activities are difficult to overestimate. Booth's initial aim had been to get to know the state of poverty and understand it, rather than making political implications explicit. As he wrote in 1888 when he presented his second paper to the Royal Statistical Society:

I do not come forward with any sovereign remedy for the evils which exist. My facts have not been gathered to support any view. I claim only that, to avoid foolish action, as much as to forward wise action, it is first of all necessary to take a large view, and understand in every sense the relation which different classes bear to each other.⁴²⁷

Booth's findings did not make him press for political or social structural changes straightaway. Booth's political position had been liberal and he did not think highly of philanthropy. The unsuccessfully electioneering experience in Toxteth in 1865 left him with a 'lifelong distaste for organised democratic politics.'⁴²⁸

Nevertheless, he became politically engaged and involved through his activities on various committees. He served on the Royal Commission on the Aged Poor in 1893⁴²⁹ and the Royal Commission on the Poor Law in 1907, together with Beatrice Webb. Although the commissions struggled with dissent, in 1908 the Old Age Pensions Act was passed. Booth had argued for a universal pension rather than the means tested system, but nevertheless he has been recognised as 'one of the progenitors of the pension.'⁴³⁰ His work is seen as instrumental in this Old Age Pensions Act and the National Insurance Act of 1911.⁴³¹ These acts helped alleviate poverty amongst the elderly and insure people against ill-health and unemployment respectively; they can therefore be seen as policy interventions in response to the findings on poverty which Booth revealed. Another way in which Booth became more closely involved with politics was through his appointment in 1904 to the Privy Council. Moreover, through his work he received academic recognition (see Section 3.3.1 above).⁴³²

Webb sums up the 'net effect of Charles Booth's work' as having given a fresh impetus to

⁴²⁷ Booth. 'Condition and Occupations of the People of East London and Hackney, 1887.' p. 278.

⁴²⁸ Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

⁴²⁹ *Booth Archive at the London School of Economics and Political Science: Charles Booth (1840-1916) - a Biography* (Accessed 16 September 2011).

⁴³⁰ *Ibid.*

⁴³¹ Douglas-Fairhurst. 'Introduction.' pp. xl- xli.

⁴³² Harris. 'Charles Booth (1840-1916), Shipowner and Social Investigator.'

(...) the policy of securing to every individual, as the very basis of his life and work, a prescribed national minimum of the requisites for efficient parenthood and citizenship.⁴³³

The impact and outcome of Charles Booth's poverty statistics have been described by Webb as including:

State provision for the children of school age, State provision for those over seventy (...) State provision for the sick and disabled and State provision for all those without employment (under unemployment insurance).⁴³⁴

Moreover, as she argues, Booth's work influenced the repeated extensions of the Factory and Workshops, Mines and Merchant Shipping, Railways and Shop Hours Acts; and the far-reaching ramification of minimum wage and maximum hours legislation.⁴³⁵

Booth's impact can thus be recognised in exactly the areas which his work presented as the causes of poverty. The work by the other researchers also demonstrates how his findings on the causes of poverty and his contributions to social science created an impact.

3.7.2 Beatrice Webb

Beatrice Webb was one of the people who became influential in both policy and social science. Together with her husband, Sidney James Webb, she was 'among the most prominent and productive pioneers of social science in Britain.'⁴³⁶ She was still Beatrice Potter when she became involved with Booth's work. They met because Booth had married Beatrice's cousin Mary Macaulay. In her diary she said that the launch of his work on the systematic enquiry into the scale of urban poverty was 'just the work I would like to undertake.'⁴³⁷ Once she became involved herself in the project her enthusiasm for it was obvious: 'the grand inquest (...) seems to me to stand out as a landmark alike in social politics and in economic science.'⁴³⁸ She closely collaborated with Booth and wrote three of the best chapters⁴³⁹ of the first edition on *Life and Labour*.⁴⁴⁰

⁴³³ Webb. *My Apprenticeship*. p. 256.

⁴³⁴ Ibid. p. 256.

⁴³⁵ Ibid. p. 256.

⁴³⁶ Davis. 'Webb, (Martha) Beatrice (1858–1943).'

⁴³⁷ MacKenzie. 'Introduction to This Edition.' p. xxxi.

⁴³⁸ Webb. *My Apprenticeship*. p. 216.

⁴³⁹ Bales. 'Lives and Labours in the Emergence of Organised Social Research, 1886-1907.' p. 132.

⁴⁴⁰ Fried and Elman. 'Introduction (pp. xv-xxxix).' p. xxii.

Throughout the work she appreciated the approach and method and envisioned Booth's contribution:

(...) a subtle combination of quantitative and qualitative analysis is a necessary factor in social studies, it may well be that Charles Booth's elaborate plan of wide statistical verification of data obtained by detailed observation of individual families and social institutions will be recognised as an indispensable basis of sociological science.⁴⁴¹

The innovation which she recognised in Booth's work was what she called 'the method of wholesale interviewing'⁴⁴² which in combination with 'automatic recording blocked the working of personal bias.'⁴⁴³ She acquired the skills and approach which she would combine with her work on economics and social science, going far beyond the scope of Booth's poverty measurement.

The relationship between Beatrice Webb and Charles Booth changed over the years. Initially, she recognised that she shared his intellectual desires,⁴⁴⁴ but after the first volume of the Poverty series of *Life and Labour* was published and met with success, they looked in different directions. Norman-Butler claims that Charles wanted to show the causes of failure and ways to improve the prevailing system, whereas Beatrice 'looked for another system altogether'⁴⁴⁵ and considered their common quest as ended.⁴⁴⁶ Nevertheless, Booth's work and her involvement with the *Life and Labour* project shaped Webb's views and following career. She continued to work on poverty and other social issues, including the method which she greatly valued of combining qualitative and quantitative methods, as seen in the title of her work in 'Personal Observation and Statistical Inquiry.'⁴⁴⁷ She worked on the Poor Law Commission and on the Minority Report and became involved with the COS, all examples of ways in which the findings of Booth's work were acted upon through state and charity interventions.

Another main influence on Beatrice Potter was Sydney Webb, whom she married. Together they established a devoted and productive working life⁴⁴⁸ writing

⁴⁴¹ Webb. *My Apprenticeship*. pp. 216-7.

⁴⁴² *Ibid.* p. 227.

⁴⁴³ *Ibid.* p. 230.

⁴⁴⁴ Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. p. 93.

⁴⁴⁵ *Ibid.* p. 101.

⁴⁴⁶ *Ibid.* p. 101.

⁴⁴⁷ Norman-Butler recounts that on 15 October 1887 Mary Booth told Charles that Beatrice's article was well received by the Daily Telegraph. *Ibid.* p. 93.

⁴⁴⁸ Their devotion and dedication to their work can be illustrated by the fact that their wedding was delayed by data collection for their trade union history and on their honeymoon on the Irish trade union records Davis. 'Webb, (Martha) Beatrice (1858-1943).'

and organising reform and focusing on administration. In terms of political activism the Webbs became involved with the Labour Party and the Fabian Society, emphasising her commitment to a progressive agenda. In the academic sphere their legacy is indisputable, as co-founders of the London School of Economics, which would become one of the world's leading social science institutions and an institution which to this day has built on Booth and Webb's traditions. One example of the importance of the LSE can be seen on the current website of its Sociology department, which proudly notes that it was the first sociology department in the United Kingdom 'and has played a unique historical role in defining and developing the discipline – nationally and internationally – since 1904.'⁴⁴⁹ The Webbs facilitated and promoted a significant change in thought and their lasting achievements include 'the foundation of the LSE, the relaunching of the Labour Party, the remodelling of London education, the invigoration of the Fabian Society [and the] creation of the New Statesmen.'⁴⁵⁰

3.7.3 Hubert Llewellyn Smith

For Hubert Llewellyn Smith, Booth's project was part of an impressive career which included an Oxford education, a career at the Board of Trade and efforts to pursue and act on his interest in unemployment.

His education included Corpus Christi College in Oxford, where he became involved in the 'new Oxford Movement', investigating and aiming to improve working class conditions. Trained in mathematics, he won the Cobden prize for an essay on the economic aspects of state socialism, reflecting the social radicalism which rejected both free-market and socialist dogma. He advocated a mix of ethical and market imperatives in shaping economic and welfare policy. He became a lecturer for the Oxford University Extension Delegacy and involved with the Toynbee Trust.⁴⁵¹

Llewellyn Smith's activities were varied and socially involved. As well as working for Booth, he worked for Potter and was involved in several other activities. For example, he was secretary of the National Association for the Promotion of Technical and Secondary Education and was a member of both the British

⁴⁴⁹ *London School of Economics and Political Science. Department of Sociology Website* (Accessed 16 September 2011).

⁴⁵⁰ Davis. 'Webb, (Martha) Beatrice (1858–1943).'

⁴⁵¹ Roger Davidson. 'Smith, Sir Hubert Llewellyn (1864-1945), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition January 2008).

Association for the Advancement of Science and the Royal Statistical and Economic Societies.⁴⁵² In terms of social activism, he was involved in union agitation and helped to mobilize public opinion against the employers in the celebrated Bryant and May's match-girls' strike in 1888. He also provided publicity for Ben Tillett in the dock strike, publishing 'the story of the Dockers' strike with Vaughan Nash. In 1890 he attempted to promote union branches and in 1891 he coordinated strike action for John Burns in East London.⁴⁵³

Thus, Llewellyn Smith was connected both with the trade union movement and with the social science community and he was also heavily involved with the Liberal Party. One of his main interests was the causes and effects of unemployment, an issue he was to investigate and influence through his role as the first Labour Commissioner of the Board of Trade in 1893, in charge of a newly established labour department. In this role he would draft the 1896 Conciliation (Trade Disputes) Act which demonstrates how Booth's work indirectly influenced legislation. One more direct illustration of a connection between Booth's innovative research methods and Llewellyn Smith's work is that he later pressured the Board for Trade to use social survey methods to investigate unemployment.⁴⁵⁴ He 'pioneered modern unemployment analysis'⁴⁵⁵ which he connected to policy as Commissioner for Labour of the Board of Trade. He prepared amongst other things the *Report on Agencies and Methods for Dealing with the Unemployed*.⁴⁵⁶ As well as developing unemployment policy, he worked on minimum wage legislation under the Trade Boards Act of 1909. He networked between Churchill, who was then President of the Board of Trade, and leading experts in the field of 'sweated' labour and low income destitution, including Ernest Aves and Beatrice Webb.⁴⁵⁷ Even after retiring he contributed evidence to government inquiries on unemployment insurance and between 1928 and 1935 he was director of the New Survey of London Life and Labour, the sequel to Booth's work 'where he had learned his statistical and investigative skills.'⁴⁵⁸

⁴⁵² Ibid.

⁴⁵³ Ibid.

⁴⁵⁴ Davidson. 'The Social Survey in Historical Perspective: A Governmental Perspective.' pp. 360-1.

⁴⁵⁵ Davidson. 'Smith, Sir Hubert Llewellyn (1864-1945).'

⁴⁵⁶ Great Britain Board of Trade of the Labour Department. 'Report on Agencies and Methods for Dealing with the Unemployed,' (Great Britain Board of Trade of the Labour Department,, 1893).

⁴⁵⁷ Davidson. 'Smith, Sir Hubert Llewellyn (1864-1945).'

⁴⁵⁸ Ibid.

Finally, Llewellyn Smith is credited, together with George Askwith, with laying the foundations of twentieth-century state intervention in British industrial relations. He is also regarded as 'one of the great civil servants of his time' and a major architect of the social and commercial policy of late nineteenth and early twentieth century Britain.⁴⁵⁹

3.7.4 Clara Collet

Clara Collet is another example of a participator in Booth's enquiry who became active in administration, most notably promoting women's education and employment.⁴⁶⁰ She worked as a teacher and was one of the first women to take an MA in Mental and Moral Science at University College London. She won a scholarship and earned a reputation as a 'statistician and economist.'⁴⁶¹ She collaborated with Booth between 1888 and 1892, focusing on women's education and employment, during which period she also started her career in government service (in 1891). Her interest and experience including that with Booth fed into her work for the Board of Trade (1893 to 1932), during which period she wrote reports to the Royal Commission on Secondary Education in 1894 and to Parliament on the wages of domestic servants in 1899.⁴⁶² She published several influential books on women's education⁴⁶³ and later worked with others as an investigator for the Board of Trade. In 1900 she provided statistics for the investigations of the British Association for the Advancement of Science into women's employment. Her experience with statistical evidence and systematic interviewing, enhanced by working with Booth, strengthened her arguments in favour of women's employment and established her reputation as a statistician and an economist,⁴⁶⁴ allowing her to challenge such established economists as Alfred Marshall (whom Booth was also connected to).

⁴⁵⁹ Ibid.

⁴⁶⁰ David Doughan. 'Collet, Clara Elizabeth (1860–1948), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

⁴⁶¹ Ibid.

⁴⁶² Ibid.

⁴⁶³ Clara Elizabeth Collet. *The Economic Position of Educated Working Women: A Discourse Delivered in South Place Chapel, Finsbury, E.C., on February 2nd, 1890* (London: 1890)., Clara Elizabeth Collet. *Educated Working Women: Essays on the Economic Position of Women Workers in the Middle Classes* (London: P.S. King, 1902)., Clara Elizabeth Collet and Women's Printing Society. *Women in Industry* (London: Women's Printing Society, 1911).

⁴⁶⁴ Doughan. 'Collet, Clara Elizabeth (1860–1948).'

3.7.5 Ernest Aves

Another project contributor who became a civil servant is Ernest Aves. He became known as a 'social investigator and civil servant'⁴⁶⁵ who worked on improving wages and the casual labour market as an early resident of Toynbee Hall, a residence for the privileged in a poor area of London with the aim of inspiring educational and social reform which has been an intellectual hub ever since.⁴⁶⁶ During 1887-97, Aves was active in the university settlement movement to bring rich and poor together. Toynbee Hall can be seen as an intellectual community and network where social issues were approached in an analytical yet socially engaged manner and can be viewed as one of the more informal ways in which Booth's work travelled. Aves had worked on gathering information about the people of St. Jude's parish before working for Booth between 1888 and 1903. He later became a special commissioner on wage boards and compulsory arbitration in Australia and New Zealand in 1907-8 and joined the department of the Board of Trade as a statistical investigator in 1907, as an expert on the casual labour market and its conditions. He was considered influential in achieving regulatory legislation for 'sweated labour.' As chief administrator for the Trade Boards Act, he also extended legislation.⁴⁶⁷ Aves' career demonstrates a clear involvement with the poor, furthered by his work with Booth.

3.7.6 David Schloss

David Schloss, 'economist and civil servant'⁴⁶⁸ was born in Lancashire in 1850. He was well educated as one of the first Jews to gain a scholarship to Oxford, where he, like Llewellyn Smith, went to Corpus Christi. He worked as a barrister and became interested in the lives of the poor of London, Jewish immigrants in particular. He wrote in *The Times* on the homes of the poor, served as a treasurer of the East London Tailoresses' Union and promoted the foundation of women's trade unions. He was in contact with the COS and published on 'sweating' in the *Charity Organisation Review*.⁴⁶⁹

⁴⁶⁵ Rosemary O'Day. 'Aves, Ernest Harry (1857–1917), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

⁴⁶⁶ *Toynbee Hall Website. History of Toynbee Hall* (Accessed 16 September 2011).

⁴⁶⁷ Rosemary O'Day. 'Aves, Ernest Harry (1857–1917), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

⁴⁶⁸ Rosemary O'Day. 'Schloss, David Frederick (1850–1912), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition May 2005).

⁴⁶⁹ *Ibid.*

His involvement with Booth started when Beatrice Potter arranged an interview with him and although she was disappointed by this meeting, Booth employed Schloss to study the East End boot and shoe trades. Together with Jesse Argyle,⁴⁷⁰ Schloss worked on over 220 interviews and direct observations, also including material on women's work. Schloss was a member of the Fabian Society and was described as a 'social radical.' In addition he was active within government and academia. In 1893 Llewellyn Smith appointed Schloss as investigator in the Labour department of the Board of Trade. Schloss presented a paper to the Royal Statistical Society on the reorganisation of the Labour department and produced several reports for the department itself. He was promoted to senior investigator and then became director of the Census Production Office in 1907. He founded the London Economic Club and was highly regarded for his work on unemployment insurance and methods of industrial remuneration. He reviewed regularly for the *Economic Journal*.⁴⁷¹ All these activities can be seen to cover the broad spectrum to which Booth's work connects.

3.7.7 Jesse Argyle

In addition to influencing the public and socially established people described above, Booth most directly facilitated the development of the career of Jesse Argyle, born in Mile End and known for his Hackney accent.⁴⁷² Working closely with Booth, he established himself as a 'social investigator and statistician.'⁴⁷³ In 1885 he was a clerk in Booth's shipping company and Booth then involved Argyle in the Mansion House relief inquiry,⁴⁷⁴ inspecting and analysing 1881 census returns. Booth subsequently employed him on his own poverty project; and Argyle became an interim assistant to Beatrice Potter. Booth in his work on Tower Hamlets used Argyle as his chief assistant. He was in charge of organising the inquiry's offices at Talbot Square and later at Adelphi Terrace and was a regular visitor at Booth's home. From his apprenticeship on the poverty series, Argyle moved on to develop his own work as a social investigator. He had sole responsibility for Walthamstow and special districts and was responsible for a considerable part of the research on

⁴⁷⁰ See Section 3.7.7.

⁴⁷¹ Rosemary O'Day. 'Argyle, Jesse William (1859–1924), in *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edition January 2010).

⁴⁷² Norman-Butler. *Victorian Aspirations: The Life and Labour of Charles and Mary Booth*. p. 117 referred to by O'Day. 'Argyle, Jesse William (1859–1924).'

⁴⁷³ O'Day. 'Argyle, Jesse William (1859–1924).'

⁴⁷⁴ Ibid.

the boot and shoe trade, published under Schloss's name in 1892. In the same year Argyle became a member of the Royal Statistical Society while he worked on sections of the Industry Series, as well as the Religious Influences Series. Argyle was also active in the Toynbee Economic Club where he gave a lecture in 1896. He was active in managing the project's office and the distribution of Booth's work and is credited with playing a key part in Booth's publications and seeing them through the press.⁴⁷⁵ Thus, Argyle's career and indeed life were closely integrated with Booth's work.

3.7.8 Connection between Booth's work and the work and impact of his researchers

These achievements by six of Booth's researchers give an impression of the way in which Booth's and their work yielded substantial outcomes. Several members of Booth's research staff were also publicly acknowledged by being knighted for their efforts. The direction for these was not limited to poverty; for example, another researcher, Sir Thomas Graham Balfour, was an author and educationist.⁴⁷⁶

All these activities by the members of Booth's research team demonstrate how the different aspects of Booth's themes and activities were interconnected within the four areas of political involvement, civil service and policy making, social activism and the development of modern social sciences. Most researchers were active in all spheres; for example, Schloss was a specialist, activist, civil servant and academic who published on insurance, as well as on the methods of remuneration, which all clearly connect the activities and interests involved in Booth's inquiry. Through these different engagements, it can be seen that Booth had gathered talented people and influenced their work, views and later careers, which in turn saw the work, methods and insights of Booth's poverty measurement creating an impact which, through understanding, changed policy and legislation to improve the lives of the poor.

⁴⁷⁵ Ibid. See Section 3.6.1.

⁴⁷⁶ One of his principal works was *Educational Systems of Great Britain and Ireland*. He organised and co-ordinated local education and 'His administration of education in Staffordshire became an example to the country at large.' W. H. Hadow and rev. M. C. Curthoys. 'Balfour, Sir (Thomas) Graham (1858–1929, in *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

3.8 Conclusion

Charles Booth's poverty measurement was innovative and created a lasting impact via its distribution and the work of the researchers involved. The product approach has allowed an analysis of Charles Booth's poverty measurement to investigate the production, distribution and use of his work. Booth was the first to create poverty facts in numbers which could verify the shocking fact that 30.7 per cent of London population was poor. In the production domain, his situation and relation to the market at the time influenced the reception and acceptance of his work – the social circumstances had created an interest and awareness and the concern over poverty was found too important to be dismissed as an individual problem. The scientific climate provided the setting for the focus on facts detached from opinion, which his approach suited and his numerical approach offered exactly this focus. The poverty information before Booth did not suffice and therefore his work was quickly used and engaged with.

Booth's personal background is informative of how as the producer he set up the work in relative independence from institutional boundaries. As an individual he was free to choose his own approaches and researchers, which also allowed him to be creative and innovative in his methods and scientific approach. The aims had been varied and even though it cannot be easily proved that his numbers had an effect, the aims and mentality are illustrative of the way in which he innovated.

The innovative character of Booth's work goes far beyond the number of 30.7 per cent. It is a package of products which individually and in combination created a lasting impact. He produced facts in numbers: he established a poverty line and with the poverty line he produced facts on poverty, but this was not his only innovation. His insights and ways of thinking about poverty offered ways of analysis which created a new understanding of it as a social concept and thereby produced facts on causes. This way of thinking was furthered by creating survey methods and other ways of investigating poverty, and also by cross checking his sources of School Board Visitors with police reports, social surveys, personal observation and walking and engaging with individuals. This allowed him to reason from empirical material upwards to create a broader understanding and the ability to add nuances and reject common stereotypes of 'the poor.' Furthermore, he allowed his intellectual findings on poverty, in terms of his classifications and the widespread nature of poverty, to travel easily to as wide an audience as possible through the innovative use of

coloured maps – an instrument of communication which would thereafter become a staple in poverty studies. His social science method and focus on understanding were additional innovations. What is more, these methods allowed for a new scientific realm in which social subjects could be thoroughly and systematically researched to reach an understanding which was indeed fit to be considered scientific, thereby establishing a new market for and new legitimacy of social science.

The distribution of Booth's work used various channels, including presentations at the Royal Statistical Society as well as the publication of his papers and the distribution of the findings. At least as important as the transmission of the facts themselves, is the way that Booth's facts on numbers, facts on causes, mode of investigation and contributions to social science travelled via the people who were his collaborators. The researchers who became involved in his project demonstrate impressive further careers, including many aspects in which his interests, understanding and approaches can be seen to have travelled. In addition, while Booth himself initially hesitated to directly suggest political consequences or policy interventions, his researchers went on to create an impact through political involvement, civil service duties and policy making, social activism and the development of modern social sciences, which extended the impact of Booth's innovative package of products and yielded far reaching results and changes for improving the lives of those in poverty.

4 US poverty thresholds: resilient to change

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4.1 Introduction

The official poverty measure in the United States of America is shown by the US poverty thresholds, which are a set of income levels under which households are counted as poor. They originate from a footnote in Orshansky's independent article 'Children of the Poor' in the *Social Security Bulletin* in 1963. Mollie Orshansky worked at the Social Security Administration (SSA), which was charged with administering the national policies on poverty; she produced the measure which within two years had become the official poverty measure. This remarkable development will be analysed using the product approach, because studying the measure in isolation will not provide the reasons for this measure to have almost instantly developed into the official measure. It was produced and distributed within a political context; its timing was one of the factors which, while unrelated to the measure, influenced what happened. In addition, the question of users has been important for the subsequent development of the measure, or rather its lack of development. The thresholds were immediately adopted by a variety of users, most notably President Johnson, who declared 'War on Poverty' in 1964. The thresholds have since been used not only to measure, analyse and interpret poverty, but also to inform policy design and evaluation in America since the 1960s. More than forty years later they are still the official poverty measure in the United States, despite consensus over the need to update the measure and numerous attempts to do so.

The product approach makes it easier to analyse the suggestion that it is not only the numbers that matter for the production and establishment of a poverty measure. This case demonstrates that the timing and context matter. Moreover, for want of updates the users have been more important than the availability of improved measures. In addition, it is not that the users aimed to stop or hinder changes to the measure. Rather, most of the users in fact wanted to change the measure but without success. This case therefore offers a story in which political processes and the failure to co-construct the measure play a role.

Therefore this case offers insights into the extent to which poverty measures and their impact are determined by the measure itself; thus, it determines the way that poverty is measured and, more importantly, the context in which the numbers are eventually interpreted. This chapter illustrates the importance of the user side, which can take facts and make use of them for a variety of purposes – and these in turn determine the way that facts travel. The political context and the conflicting interests

of different users have influenced the conceptual and intellectual progress made by a poverty measure. Understanding the measure and its components is important for offering suggestions to improve it, yet in order to understand the uses and changes of the poverty thresholds, the conflicting interests and priorities of the users must be taken into account, since they have determined the lack of updates in the US poverty thresholds during their four-decade history. This chapter has two main questions: how did the poverty thresholds develop from a footnote to the official US poverty measure; and why has the measure not been updated since? The focus on the producers, distribution and use offers answers to the process of making a footnote official and of inhibiting the thresholds from changing into an updated measure of poverty in the US, due to the conflicting interests from politicians, statisticians, administrators and academics who use it.

4.2 Chronology of the poverty thresholds

The chronology of the American poverty thresholds demonstrates continuous interest and debate on the way that poverty has been measured (see Figure 4-1). However, there were only two actual changes in the measurement, both minor, and the main measurement remained intact in the form developed in 1963.

Mollie Orshansky wrote the article 'Children of the Poor',⁴⁷⁷ which was published in 1963 in the official *Social Security Bulletin* of the Social Security Administration where she worked. The poverty lines were developed as an instrument to gain a better perspective on the life and situation of poor children. The origins of the thresholds are almost casually expressed: the way that she developed the poverty lines was only briefly explained in a footnote. In 1964 President Johnson declared his 'War on Poverty' and it took Orshansky's director to identify the importance and potential of the work before Orshansky had realised this herself.⁴⁷⁸ She was asked to expand to all families her work on the poverty lines for these children. The resulting publication in 1965 was 'Counting the Poor: another look at the poverty profile',⁴⁷⁹ in which the steps taken to establish the poverty thresholds were explained. They were used in combination with the Census categories to

⁴⁷⁷ Mollie Orshansky. 'Children of the Poor,' *Social Security Bulletin* 26, no. 7 (1963).

⁴⁷⁸ Gordon M. Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure,' *US Census Bureau Poverty Measurement Working Papers*, Accessed 15 September 2011.

⁴⁷⁹ Mollie Orshansky. 'Counting the Poor: Another Look at the Poverty Profile,' *Social Security Bulletin* 28, no. 1 (1965).

identify those in poverty and subsequently the characteristics which they might share. The Census Bureau used some of Orshansky's categories for their next census.⁴⁸⁰ The article was widely circulated⁴⁸¹ and immediately adopted as the working definition of poverty by the Office of Economic Opportunity – the office mandated with the programmes for the War on Poverty. In her articles Orshansky had used two poverty levels, depending either on income or economy food plans. In practice, only the lower of these was used. On 29 August 1969 the thresholds were made the official US definition of poverty. Robert P. Mayo, director of the Executive Office of the President at the Bureau of the Budget, issued a circular which established the poverty thresholds 'for statistical use by all Executive departments and establishments.'⁴⁸² In effect this was the moment when the federal agencies began to use the thresholds as the official poverty line.

The thresholds have been revised only twice and never substantially. The thresholds were slightly changed in 1969, weeks before they became the official poverty measure for the US, and in 1981.⁴⁸³ Apart from these, the thresholds have remained the same. However, there have been ample debates and suggestions for change: from the production of the thresholds to the present, academics, poverty workers and politicians have expressed various criticisms, among others about the choice of elements, how they were combined and the line of reasoning. Orshansky herself had envisioned the thresholds as intermediate and open to change. However, they proved to be resilient to change even by their own producer.

The government has sought to update the thresholds. In 1968 an interagency Poverty Level Review Committee was selected.⁴⁸⁴ In 1971-2 a technical committee worked on poverty statistics and in 1973 the Office of Management and Budget's Statistical Policy Division requested the Interagency Committee on Income

⁴⁸⁰ Initially the SSA purchased the data from the Census Bureau. Gordon M. Fisher. 'Remembering Mollie Orshansky - the Developer of the Poverty Thresholds,' *Social Security Bulletin* 68, no. 3 (2008). With Orshansky's involvement the poverty measurement prompted a different question being implemented in the Census practices in 1964. In 1967 the Census Bureau started publishing annual poverty data.

⁴⁸¹ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official US Poverty Measure.'

⁴⁸² Circular No. A-46, reprinted in Mollie Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix,' (US Social Security Administration. Office of Research and Statistics, 1976). p. 256.

⁴⁸³ See Section 4.6.2.

⁴⁸⁴ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official US Poverty Measure.'

Distribution and the Interagency Committee on Poverty Statistics to conduct a review of the federal statistics, which included the topic of updating the poverty threshold.⁴⁸⁵ In 1974 the Department of Education called for a review of the poverty thresholds in the light of the Education Amendments of 1974 (P.L 93-380). This resulted in the organisation of the Poverty Task Force, which in 1976 presented to Congress the report: *The Measure of Poverty*,⁴⁸⁶ with a wealth of background information and argumentation. Nevertheless, the report did not actually provide recommendations and no alterations were made.

During the 1980s and 1990s, by Fisher characterised as a period of ‘debates and “experimental” estimates,’⁴⁸⁷ further publications suggested alternative measures. These included Patricia Ruggles’ *Drawing the Line* in 1990.⁴⁸⁸ She worked at the Urban Institute, one of the institutes set up by the War on Poverty. She remained prominent through her work on poverty measurement, as did the academic Rebecca Blank who had served on several committees and argued for alterations to the thresholds. The efforts to update the measure continued into the 2000s. Improving the poverty measure was the main argument of Blank’s presidential speech for the Social Science Society in 2007.⁴⁸⁹ The debate was not restricted to academia. In September 2008 Congressman James McDermott introduced a Bill in the Senate and in the House of Representatives to change the poverty thresholds.⁴⁹⁰ Despite all these efforts, however, the thresholds still measure poverty as they have done for more than forty years.

⁴⁸⁵ Ibid.

⁴⁸⁶ Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.'

⁴⁸⁷ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure.'

⁴⁸⁸ Patricia Ruggles. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy* (Washington, D.C Lanham, MD: Urban Institute Press ; Distributed by University Press of America, 1990).

⁴⁸⁹ Rebecca M. Blank. 'How to Improve Poverty Measurement in the United States,' *Journal of policy analysis and management* 27, no. 2 (2008).

⁴⁹⁰ US Congress. *A Bill to Amend Title Xi of the Social Security Act to Provide for an Improved Method to Measure Poverty So as to Enable a Better Assessment of the Effects of Programs under the Social Security Act, and for Other Purposes.*, 110th Congress, 2nd session, 18 September 2008, H.R 6941.

Figure 4-1 Attempts to revise the poverty thresholds⁴⁹¹

1969	Revision of the poverty thresholds
1971-2	Technical Committee on Poverty Statistics
1973	Interagency Subcommittees on Cash Income, on Non-Cash Income and on Updating the Poverty Thresholds
1975-6	Poverty Studies Task Force under Department of Health, Education and Welfare (<i>The Measure of Poverty</i>) ⁴⁹²
1980	Content of Current Population Survey expanded to include in-kind (non-cash) benefits
1981	Revision of poverty thresholds (farm differential eliminated)
1982	Census Bureau publishes first experimental poverty measures
1984	Census Bureau conference on noncash benefits
1990	Boskin, Chairman of the Council of Economic Advisers' task force, considers proposing revisions
1990	Ruggles publishes <i>Drawing The Line</i>
1993-5	National Academy of Sciences Panel on Measuring Poverty
1999-2001	Census Bureau issues Experimental Poverty Measures Reports
2004	National Academy of Sciences Poverty Workshop
2004-5	University of Maryland-American Enterprise Institute research seminar series
2006	Census Bureau issues 'The Effects of Government Taxes and Transfers on Income and Poverty'
2007	Hearing in House of Representatives on 'Measuring poverty in America' ⁴⁹³
2008	Bill for Measuring American Poverty Act of 2008 (HR 6941)
2010	Press release of supplemental poverty measure

4.3 Producer: Mollie Orshansky

As the producer of the American poverty measure, Mollie Orshansky played an essential role in the story of establishing the official poverty thresholds of her country in the 1960s. She was not appointed as or expected to be the producer of the poverty thresholds; these were not developed in commission or by an official mandate. Instead, as noted above, they were adopted from an independent article in the *Social Security Bulletin*. Two of her articles in the Bulletin formed the base of the thresholds: the 1963 article 'Children of the Poor'⁴⁹⁴ and the 1965 article 'Counting

⁴⁹¹ Modified from Daniel Weinberg. 'Measuring Poverty in the United States: History and Current Issues,' *US Census Bureau. Center for Economic Studies Working Papers 06-11* (2006), p. 28.

⁴⁹² Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.' The report on the measure of poverty was mandated in 1974 and transmitted in 1976.

⁴⁹³ US Committee on Ways and Means. *Measuring Poverty in America. Hearing before the Subcommittee on Income Security and Family Support of the Committee on Ways and Means. Serial No. 110-56*, 110, 1 August 2007,

⁴⁹⁴ Orshansky. 'Children of the Poor.'

the Poor: Another Look at the Poverty Profile.'⁴⁹⁵ Orshansky is said to have first coined the term 'poverty thresholds' during a conference in 1965.⁴⁹⁶ Her personal and educational background help to explain the nature of the thresholds.

Samuel and Fannie Orshansky emigrated to the United States from what now is the Ukraine. They raised their six daughters (a seventh died in early childhood) in the Bronx, New York. Their third child, Mollie, was born on 9 January 1915 in the South Bronx. Her father had many jobs – as smith, ironworker, plumber, repairman and grocery owner. Even though he worked hard, the family could 'barely... make ends meet.'⁴⁹⁷ Orshansky's own memories of her childhood include queuing up with her mother in the relief lines to get surplus food.⁴⁹⁸ Later she would comment: 'If I write about the poor, I don't need a good imagination – I have a good memory.'⁴⁹⁹ Her personal experience of dealing with a tight budget within the family informed her understanding of poverty and her subsequent statistical analysis.

Unlike many children in her neighbourhood, she did not go out to work, but attended high school, where she was the first child in her family to graduate. Afterwards, she obtained scholarships and graduated from Hunter College in 1935, majoring in mathematics and statistics. Even though it was the middle of the Depression, she found a permanent job as a statistical clerk in the New York Department of Health's Bureau of Nursing, doing work on child mortality. In 1936 she was offered a temporary contract by the US Children's Bureau;⁵⁰⁰ this contract was renewed several times before it was made permanent. She worked on biometric studies of child health, growth and nutrition.⁵⁰¹ When the job took her to Washington, she spent only one dollar a day on food.⁵⁰² Thus from both her parents' and her own experience, she became aware of what it was like to manage nutrition

⁴⁹⁵ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.'

⁴⁹⁶ Fisher identified the first use on 24 May 1965 at the annual meeting of the National Conference on Social Welfare. Orshansky's first use of the term 'poverty threshold' was in Mollie Orshansky. 'Who's Who among the Poor: A Demographic View of Poverty,' *Social Security Bulletin* 28, no. 7 (1965).p.3. Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure,'

⁴⁹⁷ Fisher. 'Remembering Mollie Orshansky - the Developer of the Poverty Thresholds.' p.79.

⁴⁹⁸ Ibid. p.79.

⁴⁹⁹ Eaton 1970 quoted in ibid. p.79.

⁵⁰⁰ The Bureau was originally set up by the Department of Commerce in 1912, transferred to the Department of Labor in 1913 and joined the Social Security Administration in 1946. *Social Security Online. History. The Children's Bureau.* (Accessed 17 September 2011).

⁵⁰¹ *Social Security Online. History. Social Security Pioneers: Mollie Orshansky* (Accessed 17 September 2011).

⁵⁰² *Social Security Administration Website. Some Stories About Mollie Orshansky by Gordon M. Fisher* (Accessed 17 September 2011). p. 2.

on a small budget. This experience, combined with the later research on US family spending, made her argue for the inclusion in the economy budget of 15 extra cents for a cup of coffee during work for the father or a snack for the children, and only minimal and home-prepared meals.⁵⁰³

In 1942 she worked for the New York City Department of Health and from 1945 to 1948 for the US Department of Agriculture. She continued her graduate education in economics and statistics at the Department of Agriculture Graduate School and American University. In addition to her education, her various positions at the Department of Agriculture gave her insights which would later inform her approach to poverty thresholds. At the Department of Agriculture she went on to work as a family economist, conducting research on family consumption and standards of living. She was Director of the Program Statistics Division, planning and directing the statistical programme. Moreover, as a food economist, she was responsible for collecting and analysing data on food consumption and expenditure by households in the United States.⁵⁰⁴ These positions demonstrate her experience and understanding of both the qualitative and quantitative approaches to researching the consumption patterns and living standards of American families. More directly, the sources she worked with during this period were later used as a basis for her poverty thresholds.

In 1958 Orshansky joined the US Social Security Administration as a Social Science Research Analyst in the Office of Research and Statistics. She became responsible for measuring income adequacy, family welfare and patterns of family income.⁵⁰⁵ Her career as a government servant focusing on poverty contributes to her expertise on the subject.

In 1963 she worked on an in-house research project on 'Poverty as it Affects Children.' This work was not directly related to political programmes or poverty policy. In fact, as Fisher points out, at this time no one knew that within a year a national war on poverty would be declared.⁵⁰⁶ In July of the same year came the results of the research project in the *Social Security Bulletin* article 'Children of the

⁵⁰³ Ibid. p. 2

⁵⁰⁴ *Social Security Online. History. Social Security Pioneers: Mollie Orshansky.*

⁵⁰⁵ Ibid.

⁵⁰⁶ *Social Security Administration Website. Some Stories About Mollie Orshansky by Gordon M. Fisher. p. 2.*

Poor.’⁵⁰⁷ Significantly, this article included a calculation of the minimum income levels needed by different types of household to buy the minimum of food to support children. It was these estimates of the minimum income levels by household type that would form the basis of the poverty thresholds adopted by the US government. The calculations for the low income levels were based on two sources. The first was the low-cost food plan from the Department of Agriculture in January 1962,⁵⁰⁸ data with which she had worked while at the Department of Agriculture. The second source was data from the Census bureau,⁵⁰⁹ which she used to infer that people spent one-third of their income on food. Therefore the amounts provided by the source of minimum food expenditure levels were multiplied by three to obtain the minimum income levels needed.

An anecdote illustrates Orshansky’s engagement. The SSA had bought the Census data for \$2,500. The results showed that the median annual income of non-farm female-headed families with children was \$2,340. The notion that families had to live an entire year on less money than the SSA had paid for one tabulation horrified Orshansky, who is said to have stormed into her supervisor’s office, ‘interrupting a meeting to tell them of this shocking new finding.’⁵¹⁰ She was calmed down by one of them, who said that this money would not have gone to the family if it had not been used for the tabulation. Orshansky determined to make this money worthwhile.⁵¹¹

It was a coincidence that this was about the time that Orshansky’s concern with poverty would also be embraced by the political elite. In 1964, President Johnson’s declaration of war on poverty became the cornerstone of his presidency and would be encapsulated in the more positively titled Economic Opportunity Act. The hearings by Congress on the Act discussed, among others, a report prepared by the Council of Economic Advisors (CEA).⁵¹² In this report the CEA mostly used a poverty line of \$3000 but they also implicitly referred to Orshansky’s work. This

⁵⁰⁷ Orshansky. 'Children of the Poor.'

⁵⁰⁸ Ibid. p. 8.

⁵⁰⁹ This was the information the Bureau of the Census made for the SSA. They were referred to as ‘Special tabulations of the Current Population Survey, March 1962’ *ibid.* p. 5.

⁵¹⁰ *Social Security Administration Website. Some Stories About Mollie Orshansky by Gordon M. Fisher.* p.2.

⁵¹¹ Fisher. 'Remembering Mollie Orshansky - the Developer of the Poverty Thresholds.' pp. 80-1.

⁵¹² Council of Economic Advisors. 'The Problem of Poverty in America ' in *The Annual Report of the Council of Economic Advisers* (1964).

reference was made to ‘current work at the SSA,’ only later attributed to Orshansky by name.⁵¹³ The analysis, however, used only the \$3000 poverty line.

At this point Orshansky was not aware of the implications and possibilities of her 1963 article, which included only families with children. Hence, her supervisors at SSA asked her to extend her analyses to the whole population. Later she would comment that the Director of the Division of Research and Statistics ‘recognized the possibilities of what I had done before I did.’⁵¹⁴ She published the results of her new extended research in the *Social Security Bulletin* of January 1965 in a second article, ‘Counting the poor: another look at the poverty profile.’⁵¹⁵ This was when the Office of Economic Opportunity (EOE) was set up as the agency mandated with administering and implementing the programmes for the Economic Opportunity Act. In May 1965 the EOE adopted the thresholds set out in Orshansky’s January 1965 paper as its working definition of poverty. Indeed the Bureau of the Budget by 1969 had requested all Federal agencies to use the thresholds.⁵¹⁶

Before she conceived the poverty thresholds, Orshansky was described ‘an obscure civil servant.’⁵¹⁷ Eaton described her as working ‘[d]own a dimly lit hall, among stacks of computer print-outs [at] a paper covered desk.’⁵¹⁸ After the thresholds were officially accepted, however, Orshansky became better-known. She presented papers at professional meetings, published a number of articles and testified and provided written documents to Congressional committees on 10 occasions between 1967 and 1990.⁵¹⁹

As Fisher lists:

⁵¹³ The poverty line used in this report is \$3000 but its source is not quoted. Romain Huret attributes the line to Robert Lampman, a prominent person in poverty research and active in poverty research centres and connections to the government. Romain Huret. ‘Poverty in Cold War America: A Problem That Has No Name? The Invisible Network of Poverty Experts in the 1950s and 1960s,’ *History of Political Economy* 42, no. Supplement 1 (2010). Based on personal correspondence with Lampman on 10 September 1987 Fisher explained that the \$3,000 figure was a consensus choice based on consideration of such factors as the minimum wage level, the income levels at which families began to have to pay Federal income taxes and public assistance payment levels. Gordon M. Fisher. ‘The Development and History of the Poverty Thresholds,’ *Social Security Bulletin* 55, no. 4 (1992). p. 4.

⁵¹⁴ Fisher. ‘Remembering Mollie Orshansky - the Developer of the Poverty Thresholds.’ p. 81.

⁵¹⁵ Orshansky. ‘Counting the Poor: Another Look at the Poverty Profile.’

⁵¹⁶ Gordon M. Fisher. ‘Mollie Orshansky: Author of the Poverty Thresholds,’ *Amstat news* September (2008). p. 18.

⁵¹⁷ De Parle 1990, p.10 quoted in Fisher. ‘Remembering Mollie Orshansky - the Developer of the Poverty Thresholds.’ p. 81.

⁵¹⁸ Eaton 1970, p. 24 quoted in *ibid.* p. 81

⁵¹⁹ From a seven page overview list of Orshansky’s articles and hearings, after 1964 all but one (on the elderly) has ‘poverty’ or ‘poor’ in the title *Social Security Administration Website. A Chronological Bibliography of Mollie Orshansky's Work (Including Congressional Testimony)* by Gordon M. Fisher (Accessed 17 September 2011).

She received a Commissioner's Citation from the Social Security Administration in 1965 for her creative research and analytical work and the Distinguished Service Award (the department's highest recognition of civilian employees) from HEW in 1976 for her 'leadership in creating the first nationally accepted measures of income adequacy and applying them diligently and skilfully to public policy.' In 1974 she was elected a Fellow of the ASA for her leadership in the development of statistics for the measurement of poverty.⁵²⁰

In 1982 Orshansky retired from the SSA after working for the government for more than 40 years. As well as the Commissioner's Citation from the SSA in 1965, she was given in 1976 the Distinguished Service Award from the US Department of Health Education and Welfare (of which SSA was part at the time). In addition, she obtained honours from the American Statistical Association and the American Political Science Association. In December 2006, Mollie Orshansky died at the age of 91.⁵²¹

Evidently, the national poverty thresholds adopted by the USA in the late 1960s were heavily influenced by the work of this individual. In turn, her personal background and expertise help greatly to understand why and how the poverty thresholds were produced. Her expertise in poverty measures had several levels. First, having lived in poverty, she had personal experience; second, her education and training provided her with the necessary mathematical, statistical and economic skills; third, she had professional experience in the departments from her work on food budgets, family economics and access to crucial survey and statistical data.

However, although the production of the initial measures were down to Orshansky, their adoption as the official poverty measure by the US state and their subsequent use were, as she herself acknowledged, beyond her control. They were adopted, she claimed, by 'an accident of timing.'⁵²² The other reasons she gives for the national status of her poverty measures were that her thresholds were 'quasi-scientific' and that they were close to the \$3000 poverty line previously used.⁵²³ According to Orshansky, these attributes secured their take-up.

Despite her personal experience and interest, she had never envisioned becoming the producer of the US poverty measure or eventually gaining the

⁵²⁰ Fisher. 'Mollie Orshansky: Author of the Poverty Thresholds.' p. 18

⁵²¹ *The American Prospect*, 'Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,' 30 November 2002.

⁵²² Mollie Orshansky. 'Commentary: The Poverty Measure,' *Social Security Bulletin* 51, no. 10 (1988). p.23

⁵²³ *Ibid.* p.23

nickname 'Miss Poverty.'⁵²⁴ She never even set out any professional aims to work on poverty or for the federal government. Asked in an interview in 2000, she simply stated that when she graduated from Hunter College her aim at the time was to get a job.⁵²⁵

However, Orshansky formed clear ideas about the thresholds and the way in which they were important. Her main aim was not to find the most accurate numbers for poverty in the US. In fact, she was fully aware of the arbitrary decisions which were unavoidable in the measuring process. But her measure provided a more thorough foundation than the previously used 'one size fits all' threshold of \$3000 per year per family.⁵²⁶ Rather than finding a measure which altered the aggregate number of poor people in the US, she provided the basis for setting the threshold for a family of father, mother and two children not on a farm at \$3,165.⁵²⁷ That such numbers were close to the \$3000 threshold helped in having them accepted. The aim was not to provide new or different poverty numbers. Indeed, to her mind, the resulting aggregate was of less importance than the need to take some action: 'I don't think we should sit around debating whether we should do something for 32 million children or 26 million children when we haven't even done anything for 10 million.'⁵²⁸

At the same time, the composition of poverty was important for Mollie Orshansky. The main innovation that she offered was the categories in which she differentiated families according to age, number of dependents and location. Her initial categorisation yielded a matrix of 248 separate income points by which families could be classified.⁵²⁹ She illustrated that the cost of food per person ranged from '\$6.00 for a 2-person family consisting of a man and a child ... [to] \$4.30 for a 6-person family of a mother and five children.'⁵³⁰ This reflected that there were economies of scale for larger families and also took into account the specific

⁵²⁴ On the history section of the Social Security website she is named a social security pioneer: 'The contributions made by Miss Orshansky to the statistical measurement of the low income population and its causal effects of Federal programmemes on that population have earned her the affectionate moniker, 'Miss Poverty.'*Social Security Online. History. Social Secutiy Pioneers: Mollie Orshansky.*

⁵²⁵ 'Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,' 30 November 2002.

⁵²⁶ Orshansky. 'Commentary: The Poverty Measure.' p.23.

⁵²⁷ Orshansky. 'Children of the Poor.' p. 9

⁵²⁸ 'Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,' 30 November 2002.

⁵²⁹ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 6.

⁵³⁰ Ibid. p.7.

situations in which families had to deal with their income and necessities according to where they lived and the number and age of the children. Thus, in addition to offering answers to the question ‘how many Americans are poor?’ Orshansky offered answers to the question: ‘who are the poor?’

The poverty thresholds thus offered the innovation of variation according to category. Based on the thresholds, the poverty guidelines were established and then simplified to facilitate administrative purposes.⁵³¹

These US poverty thresholds have been used ever since, which emphasises their endurance and importance. They are different from other poverty measures used in developed countries, first, in taking into account this variety of situations in the poverty line; and second, in being an absolute poverty measure.⁵³² In adopting the thresholds rather than the \$3000 measure per household, the chief of the Office of Economic Opportunity, Joseph Kershaw, commented: ‘Mollie Orshansky says that when you have more people in the family, you need more money. Isn’t that sensible?’⁵³³ Thus, even though the \$3000 used before was obviously a more practical figure, the Orshansky thresholds were adopted. This implies that simplicity or pragmatic reasons are not always the main or determining factors in accepting a statistical measure.

In her research Orshansky drew attention to the composition of poverty. However, the insights from this analysis did not travel to the political domain. Her variety of family types is not specifically targeted in policy programmes. In terms of timing, most of the programmes for the War on Poverty were already set and later programmes did not explicitly refer to the composition of poverty as identified by the thresholds. Nevertheless, Orshansky did realise the policy implications of the poverty thresholds. In a commentary in the *Social Security Bulletin* in 1988, she reflected on their success, which included a variety of programmes seeking out the poor in relation to her thresholds. Moreover she states that:

⁵³¹ See Section 4.5.4

⁵³² Orshansky calls it ‘relative absolute’ because one of the sources takes into account the rest of the population.

⁵³³ Fisher, p. 81 from personal communication August 31, 1994.

By adding family-size differentials, it facilitated operational use of the index to determine program eligibility for individual families, a use specifically foresworn by SSA, the Council of Economic Advisors, the Bureau for the Budget and a host of critics.⁵³⁴

Orshansky's aim, as we have seen, was action, as her desire to do something for children rather than counting the aggregate number testifies. However, acknowledging that her work was analytical and statistical in nature and did not justify direct policy consequences, she noted in 1988 that 'the link to nutritional economy and food-income consumption patterns endowed an arbitrary judgment with a quasi-scientific rationale it otherwise did not have.'⁵³⁵ She continued to work on poverty in other projects and for testimonies to Congress, which after 1964 almost always concerned poverty and included suggestions, still unadopted, for improving and updating the thresholds.⁵³⁶

Thus, the thresholds moved beyond the control of even their producer. The history of the US thresholds demonstrates that, on the one hand, as an individual with no initial aims Orshansky determined the thresholds according to her personal and professional experience. On the other, she lacked direction over the thresholds when they were adopted as the official American poverty measure. Despite her expertise and position she was unable to have the thresholds amended or develop them further.

4.4 Product: poverty thresholds

4.4.1 The 1963 article: 'Children of the Poor'

Orshansky's original article addresses the situation in which American children grow up in poverty and was part of a broader project on children which she was working on. The thresholds are a supportive feature of the article, not its main theme. Nevertheless, the article demonstrates a variety of issues which set the basis for accepting the poverty thresholds. First, in an understated way, the article introduces the poverty criterion. Second, the article shows a strong use of data, arithmetic, argumentation and rhetorical writing style. Third, using the Census data, Orshansky sets out carefully the situation in which children were growing up. Fourth, this situation is connected to the effectiveness and importance of policy action.

⁵³⁴Orshansky. 'Commentary: The Poverty Measure.' p. 23.

⁵³⁵ Ibid. p. 23.

⁵³⁶ See Sections 4.5 and 4.6.

In 'Children of the Poor' Orshansky argues that while the US was gaining wealth, the poorest citizens did not benefit from the improvement in the general standard of living. There is also the question of how many poor there were – 30, 40, 50 million? She makes a comparison with the 1930s, when one-third of the country was ill-fed, ill-clothed and ill-housed, whereas in 1963, it was thought to be only a fourth or a fifth. Orshansky asks whether this should cause pride, because the proportion of the population in poverty had declined, or alarm because so many Americans were still in poverty.⁵³⁷ She points out that there is no consensus over how many Americans were poor. What is more, she looks beyond numerical vagueness and asked what it meant even if the number of poor people was clear. Moreover, if there had been a change in the figures, she asks how it can be attributed to policy or action from government or civil society. Thus, through her position and interest she alludes to the connection between policy and poverty and whether their relationship had a causal element.

Orshansky's argumentation aims to discredit any argument that poverty was not important. By itself, inequality 'need not disturb us,' she maintains, 'and it is debatable how to distinguish between absolute deprivation of poverty and mere lower-than-average income.'⁵³⁸ She argues that the standards of what was essential changed according to the general standard of living and that it should be a matter of concern whether some missed out on the American ideal of equal opportunity. This emphasises that the article had a clear American focus, not only in its language but also in not referring to other countries; and it directly refers to the ideal of the American dream where all children have equal opportunities. The article demonstrates, however, that equal opportunities do not extend to those being raised in poverty and thus makes a case for government action. Her next point, using Census data, is that poverty does not 'hit at random,' since some groups 'seem destined to poverty almost from birth – by their color or by the economic status or occupation of their parents.'⁵³⁹ This implies that poverty cannot be viewed as an individual problem. Rather, there were structural and cultural reasons which Orshansky sought to clarify with Census data to show the incidence of poverty amongst different groups.

⁵³⁷ Orshansky. 'Children of the Poor.'

⁵³⁸ Ibid. p. 3.

⁵³⁹ Ibid. p. 3.

Poverty was often connected to lack of employment. Orshansky notes that the labour market had changed. Opportunities for work had changed – there was a greater requirement for more highly-skilled labour, which excluded the heads of some families unable to improve their skill level: the retired, women and non-whites. The Census data also point to families with incomes too low to provide for their children properly. ‘The estimated number of such families can be varied almost at will, but if there is no consensus on the standards, there can be no doubt that, whatever the definition of income inadequacy, a large number of families will be below it.’⁵⁴⁰ This quotation acknowledges that the estimate can change according to the measurer, while – regardless of the way in which it is measured – poverty still remains. This is in contrast to the rest of the article, in which she argues that the resulting number of poor remains roughly the same no matter which way poverty is measured. She uses the Census data to demonstrate certain characteristics associated with poverty, for example, the cases of split up or non-white families. She presents information in tables which identify the money income of different types of according to the family with children.

Orshansky describes the situation in which the 66 million children in the US grow up, whether they live with both or one of their parents and subsequently what the incomes of families with children are. In her description she introduces an ‘estimated incidence of poverty’ in which she presents a crude criterion of income adequacy. This would become the base for the poverty thresholds. The explanation in the main text is brief. She first wants to establish what proportion of income was allocated to food. From recent studies of food consumed by families in the United States Orshansky derives that expenditures for food averaged about one third of family money income (after taxes) for both farm and non-farm families (Census data, but the exact source is not mentioned).

The next step is to assess what food budget was the minimum necessary to achieve a nutritionally adequate food intake. For this Orshansky uses two food plans of the Department of Agriculture, the low-cost plan and the economy plan.

First, she considers the low cost food criterion, which established the cost of an adequate diet for each family size, on the basis of the quantities needed for adults and children at January 1962 prices, as suggested by the Department of Agriculture

⁵⁴⁰ Ibid. p. 5.

for obtaining an adequate diet at low cost. Second, a dollar total of four-fifths of this low-cost estimate is taken as the cost for the more restricted but still adequate diet suggested in the economy plan. This plan is used to estimate the number of families for whom the purchase of even the less expensive economy diet would require more than one-third of the money coming in. The reasoning is thus to establish who is poor on the basis of not having enough income to buy the necessary food.

The economy plan is thus the plan which would still provide adequate nutrition at the lowest cost. Even though not every family spending as much as these plans propose will automatically choose an adequate diet, a family spending less is not likely to find food which meets the recommended nutritional goals. Therefore, it was considered to have too little income and this to be considered poor.

Orshansky explains that the food plans, while not subsistence diets, (...) do assume that the housewife will be a careful shopper, a skilful cook and a good manager who will prepare all the family's meals at home. There is no additional allowance for snacks or the higher cost of meals away from home or meals served to guest.⁵⁴¹

The rest of the details are put in the footnote. Figure 4-2 shows the page in the article in which Orshansky describes how she estimates the incidence of poverty; footnote 1 is the explanation of her thresholds and reads:

Families designated poor if total money income in 1961 was less than three times the cost of an adequate diet in terms of (1) a low-cost food plan and (2) an economy plan. For the low-cost criterion, cost of an adequate diet was estimated for each family size on the basis of food quantities for adults and children at January 1962 prices as suggested by the Department of Agriculture for obtaining an adequate diet at low cost. A dollar total of four-fifths of this low-cost estimate was taken as the cost of the more restricted but still adequate diet suggested in the economy plan to estimate the number of families for whom the purchase of even the less expensive economy diet would require over one-third of money income.

For farm families, who raise some of their own food, the purchased portion of an adequate diet was assumed to be 60 percent of that of a nonfarm family of similar composition. See Department of Agriculture, Agricultural Research Service, *Family Food Plans and Food Costs*, Home Economics Research Report No. 20, November 1962, and Household Food Consumption Service, *Food Consumption and Dietary Levels of Households in the U.S.*, Spring 1955, ARS 62-6, August 1957.

⁵⁴¹ Ibid. p. 8.

Figure 4-2 Page with the footnote explaining the way she estimated poverty⁵⁴²

Of the nearly 1 million subfamilies with own children in 1960, more than half were headed by a mother. All told, 1.7 percent of all family groups consisting of both parents and their children under age 18 were subfamilies, compared with 27.2 percent of the units consisting of a mother and her children under age 18.

Estimated Incidence of Poverty

A crude criterion of income adequacy—that the low-cost food plan priced by the Department of Agriculture in January 1962 represents no more than one-third of total income—consigns about 71 percent of the mother-child families to low-income status. Even the use of the Department's economy plan, estimated to cost about 20 percent less than the low-cost plan, leaves at 61 percent the proportion of the mother-child families who must devote to food more than \$1 out of \$3 to get a nutritious diet.

TABLE 6.—Number of families with own children under age 18 in low-income status and number of children in these families, by poverty status¹

[In thousands]

Residence and presence of parents	Families with own children ¹			Own children in families ¹		
	Total	Poor by low-cost diet	Poor by economy diet	Total	Poor by low-cost diet	Poor by economy diet
Total number.....	26,227	6,936	4,865	62,655	21,996	15,859
Mother and father.....	23,745	5,256	3,375	57,109	17,481	11,725
Mother only.....	2,225	1,578	1,355	5,108	4,333	4,012
Father only.....	254	102	75	438	182	122
Nonfarm, number.....	24,349	6,237	4,229	57,425	19,634	13,902
Mother and father.....	21,953	4,610	2,854	52,072	15,202	9,896
Mother only.....	2,163	1,530	1,320	4,951	4,298	3,962
Father only.....	233	91	65	402	164	104
Farm, number.....	1,878	699	566	5,230	2,362	1,927

¹ Families designated poor if total money income in 1961 was less than three times the cost of an adequate diet in terms of (1) a low-cost food plan and (2) an economy plan. For the low-cost criterion, cost of an adequate diet was estimated for each family size on the basis of food quantities for adults and children at January 1962 prices as suggested by the Department of Agriculture for obtaining an adequate diet at low cost. A dollar total of four-fifths of this low-cost estimate was taken as the cost of the more restricted but still adequate diet suggested in the economy plan to estimate the number of families for whom the purchase of even the less expensive economy diet would require over one-third of money income.

For farm families, who raise some of their own food, the purchased portion of an adequate diet was assumed to be 60 percent of that of a nonfarm family of similar composition. See Department of Agriculture, Agricultural Research Service, *Family Food Plans and Food Costs*, Home Economics Research Report No. 20, November 1962, and Household Food Consumption Service, *Food Consumption and Dietary Levels of Households in the U.S.*, Spring 1955, ARS 62-6, August 1957.

² Sons, daughters, stepchildren or adopted children of the family head only; excludes children otherwise related to family head and all children living in subfamilies.

Source: Estimates derived from special tabulations of the *Current Population Survey*, March 1962, made by the Bureau of the Census for the Social Security Administration, and from food plans and food costs published by the Agricultural Research Service of the Department of Agriculture.

The proportion of income that must be used for food has long been regarded as an indicator of the standard of living. Commonly, high-income families spend more dollars for their food than low-income families but nevertheless use up a smaller share of total income in doing so; they thus have relatively more money free for other things. Recent studies of food consumed by families in the United States showed that, on an average, the expenditures for food came to one-third of family money income (after taxes) for both farm and nonfarm families. Poorer families generally devoted more than one-third of income to food, and those better off used less of their income in this way.⁷

The food plans of the Department of Agriculture suggest quantities and types of food that meet desirable nutritional goals and at the same time conform to the common food preferences of American families. Their low-cost food plan has long been used as a guide for families who must watch food expenses because of low income or who choose to do so for other reasons. The economy plan at even lower cost, recently issued by the Department, still will provide adequate nutrition. Though not every family spending as much as these plans will automatically choose the foods that make up an adequate diet, a family spending less is not likely to end up with food meeting recommended nutritional goals. The economy and low-cost food plans are by no means subsistence diets, but they do assume that the housewife will be a careful shopper, a skillful cook, and a good manager who will prepare all the family's meals at home. There is no additional allowance for snacks or the higher cost of meals away from home or meals served to guests. Nor is there extra allowance for the ice-cream vendor or the soda pop so often a part of our children's daily diet. According to recent surveys, the average family, unless restricted by lack of income, is likely to spend considerably more than the low-cost plan or the economy plan suggests.

Having a father in the home by no means guarantees income adequacy. Among nonfarm husband-wife families the proportion bringing up their children on income too low to permit ade-

⁷ The Census distributions relate to income before rather than after taxes. This timing should not affect the relationship for low-income families, many of whom are not subject to tax.

⁵⁴²Ibid. p 8.

In the article Orshansky draws from various sources, which include the classifications and categories of Census surveys and those of the Department of Agriculture as well as her own work experience and documents on food plans. She follows two publications in making the distinction between families resident on farms assumed to be 60 per cent of non-farm families of similar composition, to take into account that some of their own food was not bought.⁵⁴³

Orshansky is explicit on several occasions that the criteria used for classification were crude.⁵⁴⁴ Yet she calibrates her results with other criteria which yielded similar results. She refers to the cut-off point for Federal income tax, which estimated for 1959 that 16 million children were in low-income status, or 1 every 4. She also refers to another estimate, for which she does not give a source: 'Estimates of the number of persons of all ages with inadequate income have varied from 1 in every 5 to nearly 1 in 3.'⁵⁴⁵ Thus, on the one hand, she acknowledges that the poverty measure she takes can be arbitrary and can be changed at will.⁵⁴⁶ On the other, she notes that the resulting aggregate number remains roughly the same. Her main innovation and emphasis would be made more explicit in the 1965 paper, in which she uses a different composition of families in poverty and their relative need of income to satisfy their basic needs. In justifying the procedure she mentions that one

(...) usually must select a procedure to maximize either specificity or validity. The method might fail to do either, it will almost never do both. The two estimates may range from identifying those undeniably in the poverty status to those who risk deprivation because income is uncomfortably low.⁵⁴⁷

In terms of concrete examples of poverty threshold income levels, she gives only the example of a husband, wife and two children on a farm having an income of \$3,165 or \$3,955 (on the basis of the economy and low cost plans respectively) and that of a mother with two children, who would require \$2,945 or \$3,680 respectively.⁵⁴⁸ The way in which she reaches these figures is not made explicit. In

⁵⁴³ 'The Department of Agriculture, Agricultural Research service, *Family Food Plans and Food Costs*, Home Economics Research Report No. 20, November 1962 and Household Food Consumption Service, *Food Consumption and Dietary Levels of Households in the US*, Spring 1955, ARS 62-6, August 1957.' Quoted in the footnote, *ibid.* p. 8 and explanation on p. 9.

⁵⁴⁴ *Ibid.* p. 9.

⁵⁴⁵ *Ibid.* p. 9.

⁵⁴⁶ *Ibid.* p. 5.

⁵⁴⁷ *Ibid.* p. 9.

⁵⁴⁸ *Ibid.* p. 9.

terms of the resulting number of poor children, the conclusion is that ‘17-23 million children are subject to the hazards of insufficient family funds.’⁵⁴⁹

Thus, the way in which the basis of the thresholds is set out does not elaborate on the specifics of the measure. It is mainly used as an instrument to establish a poverty criterion to use for the following analysis of data connected to children in poverty. The rest of the article explores some of these factors; for example, whether they live as subfamilies, their race, median incomes, school enrolment and employment.⁵⁵⁰

Orshansky then links the analysis of the situation of children in poverty to policy efforts. She identifies that the income support programmes did not reach the target groups and even with assistance half of the recipient families are still in financial need. Moreover, the existing programmes are ineffective.⁵⁵¹ She emphasises the way that poverty continues in families, due to factors such as the transmission of poverty over generations and the obstacles to educational attainment, referring to this as the ‘legacy of poverty.’

Regarding the measuring method, the paper calls for a refinement of the poverty measure: ‘There is need for considerable refinement of the definition or standards by which poverty is to be measured, if we are to trace its course with assurance.’⁵⁵² Moreover, the article finishes with a call for action to alleviate poverty:

If it be true that the children of the poor today are themselves destined to be the impoverished parents of tomorrow, then some social intervention is needed to break the cycle, to interrupt the circuits of hunger and hopelessness that link generation to generation. For the common benefit of all we must assure the scrutiny and well-being of all our children – at the same time the Nation’s most precious and most perishable resource.⁵⁵³

This quotation emphasises the need for government intervention, not only for those in poverty, but as an important step for all within the USA.

The 1963 article forms the basis of the poverty thresholds. Using the Census data to build her story, Orshansky lets the data tell its own story about the situation of children in general. She develops her poverty criterion to be instrumental in the

⁵⁴⁹ Ibid. p. 9.

⁵⁵⁰ Ibid. pp. 9-10.

⁵⁵¹ Ibid. pp. 11-2.

⁵⁵² Ibid. p. 13.

⁵⁵³ Ibid. p. 13.

analysis of children in poverty, what their home situation is like and how this can be connected to inferences about the groups which are more likely than others to be in poverty. This makes poverty not an individual, but a more structural and cultural problem, for which government action seems justified. Her passionate writing style uses rhetoric and focuses on children who should not be blamed for their poverty, to persuade those against government intervention and to emphasise the extent of poverty in the US at a time when economic optimism prevailed. Her argumentative use of language complements the data-driven analysis. Within the context of the various issues brought forward by the article, including the connections between poverty and policy, the poverty criterion is almost casually introduced in the text and explained only in a footnote; it serves mainly as an instrument to identify the poor families which are then further characterised by the Census data.

The method used in the 1963 article however claimed more attention when Johnson declared the War on Poverty and when Orshansky's Director asked her to extend the analysis to all families. She does this in the 1965 article from which the poverty thresholds were later adopted.

4.4.2 The 1965 article 'Counting the Poor: Another Look at the Poverty Profile'

In her 1965 article for the Social Security Bulletin, Orshansky focuses on the poverty measure and resulting poverty profile. This article is the one from which the eventual poverty thresholds were taken. It sets out the steps followed to teach a standard definition of poverty, which is then used to provide a view of the 'poverty profile.' The way in which this article was written, structured and reasoned provides an important reason why Orshansky's poverty measures became the official poverty thresholds. The article combined a strong writing style with a transparent explanation of the statistical methodology and uses numerical empirics to describe the situation of those in poverty: 21 of the 26 pages include tables indicating the different categories and relevant numbers of people and dollar amounts. This section deconstructs the article and brings forward the elements which enabled her facts on poverty to travel.

The article 'Counting the Poor: Another Look at the Poverty Profile' started with a reference to use by the Council of Economic Advisors of an annual income of

less than \$3,000 to define families living in poverty.⁵⁵⁴ Orshansky notes that this measure is crude and approximate and does not take into account the differences between family sizes and farm or non-farm residence. Therefore she uses this article to extend the analysis made in the 1963 article 'Children of the Poor' to define poverty levels for a large number of families of different types.⁵⁵⁵

In addition, she acknowledges that the poverty lines were immediately used. The SSA had obtained special Census tabulations from the March 1964 Current Population Survey classifying families and unrelated individuals as above or below these poverty cut-off points. These data are used in relation to the poverty standards which Orshansky develops to paint a 'summary picture of the groups thus classified as poor.'⁵⁵⁶ While the combination of poverty standard and data offers a new way to count the poor and while this is the actual title of the article, more important to Orshansky is the composition rather than the total number of poor, as this remains roughly the same, whether the \$3000 or her standard is used.⁵⁵⁷

Orshansky takes as her main question how to sketch a poverty profile, based on an income standard which takes into account the size and farm or non-farm residence of families.⁵⁵⁸ The article is clearly structured by already using the poverty standard to give some outcomes upfront and then taking the reader through the steps by which she defines the poverty line. This includes first, assessing the available standards for food adequacy; second, choosing representative family types; third, investigating the income-food expenditure relationship; and fourth, adjusting for residence on farm or non-farm, which then leads to the appropriate standard. She then assesses the standard in terms of how adequate it is and varies the reference point, as well as translating the standard into dollar terms to analyse the income deficit. The article continues to view poverty in relation to children, age, work and occupations, before she concludes with comments on implications.

⁵⁵⁴ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 3 This reference is both in the report by the Council and in the hearings on the Economic Opportunity Act in which this report played a role. US Subcommittee on the War on Poverty Program of the Committee on Education and Labor., *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440*, 1964,

⁵⁵⁵ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 3.

⁵⁵⁶ Ibid. p. 3.

⁵⁵⁷ Ibid. p. 3.

⁵⁵⁸ Ruggles. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy*. p. 4.

This structure demonstrates that this is not only the article in which she elaborates on her methodology of deriving the poverty measure, but also one in which she also immediately puts the measure to use, employing it to establish a poverty profile and to view poverty in relation to such issues as age and work. Thus while the title suggests that the article is about counting the poor, this is not her only aim. She offers some aggregate numbers on poverty but her main emphasis is on the way to define poverty and then to understand the situation in which the poor live, according to a variety of factors. In addition, she uses the poverty criteria and categories to examine the data from the Census bureau. This yields insights, including which groups are more likely to be poor, but also how the number of them relates to the total number of poor. For example, she states: ‘There is thus a total of 50 million persons – of whom 22 million are young children – who live within the bleak circle of poverty or at least hover around its edge.’⁵⁵⁹ Moreover, her research showed that ‘Non white families suffer a poverty risk three times as great as white families do, but 7 out of 10 poor families are white.’⁵⁶⁰

In the introduction and throughout the article Orshansky admits that the method is still relatively crude and includes arbitrary decisions. She also mentions that the standard is temporary. She announces that the Division of Research and Statistics where she worked was developing a more refined measure based on the relationship of income to consumption, but that those studies would take time. ‘Until they can be completed, the indexes used here provide a more sensitive method that has hitherto been available of delineating the profile of poverty in this country and of measuring changes in that profile over time.’⁵⁶¹ At this time she was not aware of how difficult it would later become to alter the poverty thresholds.

The method thus set up a research tool and aimed at its temporary use until a new measure should become available. Nevertheless, the temporary nature of the measure described need not impede action: ‘The initiation of corrective measures need not wait upon final determination of the most suitable criterion of poverty, but the interim standard adopted and the characteristics of the population thus described will be important in evaluating the effectiveness of the steps taken.’⁵⁶² This indicates

⁵⁵⁹ Orshansky. ‘Counting the Poor: Another Look at the Poverty Profile.’ p. 4.

⁵⁶⁰ Ibid. p. 5.

⁵⁶¹ Ibid. p. 3.

⁵⁶² *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440.* p.3.

two further roles for the measure: first to identify who is poor; second, to give an auditing option which becomes available with data about the effectiveness of policy. Here she refers to the War on Poverty. The policy function more explicit after the 1963 paper because in 1964 the war on poverty was declared and ‘with the planning of the how, there is the task of identifying the whom.’⁵⁶³ Therefore, the poverty measure allows the poor to be counted, yielding an aggregate number, it also identifies who is poor, which yields information on which groups are to be targeted in policy, and can also be used for administrative purposes to determine who is eligible for state support.

Her line of reasoning is set out from the start and her introduction takes away some counterarguments. She argues that there cannot be one standard which is universally accepted and uniformly applicable. Nevertheless, while it might be difficult to state how much is enough, she argues that it should be possible to ascertain how much is too little.⁵⁶⁴ Therefore she sets out to sketch a profile of poverty based on a particular income standard which makes allowance for the different needs of families with varying numbers of adults and children to support. Moreover, it recognises whether a family lives on a farm or not.⁵⁶⁵ She admits that the standard is ‘arbitrary, but not unreasonable.’⁵⁶⁶

4.4.3 Preview of the poverty profile

Her next section gives a preview of the poverty profile obtained by using the poverty standard. The poverty profile is based on the assumption that an average family of four uses 70 cents per day per person for all food and twice as much for all other items.⁵⁶⁷ This would require a total family earning of \$60 per week. Orshansky justifies this as follows:

By almost any realistic definition, individuals and families with such income – who include more than a fifth of all our children – must be counted among our undoubted poor.⁵⁶⁸

This is her conviction, which takes her on a different route from other poverty measures: she does not start with what is enough, the basics needed to survive, but

⁵⁶³ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 3

⁵⁶⁴ Ibid. p. 3.

⁵⁶⁵ Ibid. p. 4.

⁵⁶⁶ Ibid. p. 4.

⁵⁶⁷ Ibid. p. 4.

⁵⁶⁸ Ibid. p. 4.

instead starts with the line under which it is not possible to survive and proceeds from there. It is the same line, but the line of reasoning is different.

The next stage is to see who these poor are. Orshansky asks whether they are social casualties, people without opportunities to earn a living, or minority groups hindered by discrimination. ‘These groups, to be sure, are among the poorest of the poor, but they are not alone.’⁵⁶⁹ The question of who the poor are can be answered with her approach.

Orshansky uses the Census data to establish the risk and prevalence of poverty in the classified groups. For example, one of the findings indicates that even though the stereotype is that the poor are not employed, the heads of more than half of all poor families have jobs.⁵⁷⁰ Half of these employed people have even had a full time job for a year: ‘of the 7.2 million poor families in 1963, 1 in every 6 (1.3 million) is the family of a white male worker who worked full time through the year.’⁵⁷¹ Thus, poverty prevails even with full time employment. Moreover, this affects children, since, of the 15 million children counted as poor, 5¾ million had a family head in full time employment.⁵⁷² After this preview of the information yielded, Orshansky takes the reader through the steps which she followed to yield the poverty profile.

4.4.4 Defining the poverty line

The explanation of her definition of the poverty line starts with an acknowledgment that poverty has many facets which are not all reducible to money.⁵⁷³ Orshansky does not elaborate on the definition from a conceptual basis or relate her research to academic literature. Instead, she chooses to base her poverty line on the empirical material she is familiar with, rather than on (conceptual) literature. Moreover, her focus is on the USA only. She claims that, whereas in other countries there is an issue of whether one can live, in the United States it is a matter of how.⁵⁷⁴ She notes that there are complications in answering the question ‘what is enough?.’ For

⁵⁶⁹ Ibid. p. 4.

⁵⁷⁰ Ibid. p. 5.

⁵⁷¹ Ibid. p. 5.

⁵⁷² Ibid. p. 5.

⁵⁷³ Ibid. p. 5.

⁵⁷⁴ Ibid. p. 5.

example, it changes over time as ‘yesterday’s luxuries become tomorrow’s necessities.’⁵⁷⁵

Instead of answering this question, Orshansky reasons that it is easy to agree on what is too little. Not having enough food intake is taken as the starting point. For this she uses the available standards for food adequacy, the food plans of the Department of Agriculture. These had provided a guide for estimating the costs of food needed by families of different composition for more than 30 years. The plans take into account nutritional adequacy, as suggested by the National Research Council, which are based on American consumption patterns from food consumption studies.⁵⁷⁶ Therefore the food plans provide guidelines based on actual consumption, but are thus not empirical data on what is actually eaten.

There are several food plans, of which Orshansky uses two. The first is the low cost plan, which is adapted to the food patterns of families in the lowest third of the income range. Welfare agencies have used this plan as a basis for food allocation.

Although spending as much as this food plan recommends by no means guarantees that diets will be adequate, families spending less are more likely to have diets falling below the recommended allowances for some important nutrients.⁵⁷⁷

The second plan is the economy food plan issued by the Department of Agriculture, costing only 75-80 per cent as much as the basic low-cost plan, for ‘temporary or emergency use when funds are low.’ This would average only 22 cents a meal per person in a 4-person family. The food plan does not include any meals eaten out or other food eaten away from home.⁵⁷⁸

With the costs of two food plans calculated, family size and composition prototypes are then defined, before deciding how much additional income is needed and then how to relate the needs of farm families to those of non- farm families.

4.4.5 Representative family types

Orshansky writes transparently about her procedure, indicating which decisions were arbitrary. Related to the data of the census available, some ‘arbitrary’ assumptions were made for example about the ages of intermediate children ...when there were

⁵⁷⁵ Ibid. p. 5.

⁵⁷⁶ Ibid. p. 5.

⁵⁷⁷ Ibid. p. 6.

⁵⁷⁸ Ibid. p. 6.

more than two children in the family, or the age and sex of persons in the family other than head, spouse and own children under age 18.’⁵⁷⁹

Even though she clearly specifies the arbitrary decisions, these refer only to data unavailable and to a smaller group within the population, not necessarily affecting the poverty line directly. Having related the family types to food costs, she next explores the relationship of income to food expenditure.

She notes that proportion of income spent on food has been used as an indicator of economic well-being.⁵⁸⁰ However she argues that for larger families the situation is different, since they need more money to buy the diets that would nutritionally satisfy all members of the family. She justifies this view with the 1955 study of household food consumption from the Department of Agriculture which assessed the diets of households and found that there were differences in the calcium intake depending on the size of household.⁵⁸¹ The focus on large families indicates that there are protein and calcium deficiencies and ‘for large families there is a lowering of dietary standards enforced by insufficient funds.’ In addition, as the article demonstrates by tables and the use of Census data, families with large numbers of children do indeed have lower incomes than smaller families. Moreover, an analysis of recent consumption data suggests that large families, given the opportunity, prefer to devote no larger a share of their income to food than do smaller families with the same per capita income.⁵⁸²

The next step was to establish how food costs relate to total family costs. For this, two sources were used to calibrate a multiplier. The Agriculture Department evaluated family food consumption and dietary adequacy in a 1955 survey week and reported for all families of two or more – both farm and non-farm – an expenditure on food approximating one-third of money income after taxes. A later study made in 1960-61 by the Bureau of Labor Statistics found for urban families that nearly a fourth of the family’s income (after taxes) went on food.⁵⁸³

The differences in data can be explained by differences in methodology between a weekly list and a questionnaire which a selection of families used. Orshansky does calibrate her findings to other ratios: the low cost food plan criterion

⁵⁷⁹Ibid. p. 7.

⁵⁸⁰Ibid. p. 7.

⁵⁸¹ Ibid. p. 7.

⁵⁸² Ibid. p. 8.

⁵⁸³ Ibid. p. 8.

can be roughly compared to results which would have been obtained using the income food ratios as indicated by the Bureau of Labor Statistics.⁵⁸⁴ Without making explicit why or elaborating on the underlying data to demonstrate the intervening steps, Orshansky takes the relationship of three as the multiplier.

The last step is the farm/non-farm adjustment. From the Household Food Consumption survey in 1955 of the US Department of Agriculture, Orshansky concludes that for farm families 40 per cent of the food came from the farm and other expenses were shared with the farming activities, which is why farm families were assumed to need 40 per cent less income than non-farm families.

These steps yield the resultant standard,⁵⁸⁵ as an extended, updated and refined version of the 1963 version.⁵⁸⁶

The poverty lines as developed were immediately used by the Census. Thus before the 1965 article, the poverty lines had already been adopted by others users than Orshansky or the Social Security Administration: Orshansky notes that they had served 'to classify a representative Bureau of the Census population sample as of March 1964 for comparison of characteristics of poor and nonpoor units in terms of 1963 money income.'⁵⁸⁷ The classifications taken into account were those of farm and non-farm populations. Unrelated individuals were classified by age and sex and families by sex of the head, total number of members and number of related children under age 18. The income of each unit was then compared with the appropriate minimum. The households thus classified as poor and non-poor were then analysed for characteristics other than income.⁵⁸⁸

This demonstrates that Orshansky's method was first used to establish the dollar amounts necessary for each type of family, hence, the poverty lines. In combination with the Census data these poverty lines provide information about who is poor and yield the poverty profile.

The information can be condensed from 248 criteria into an abbreviated set for families of different size. Orshansky uses the table reproduced below as Figure 4-3 to indicate the income cut-off points for both food plans. For example, for non-

⁵⁸⁴ Ibid. p. 9.

⁵⁸⁵ Orshansky uses the terms poverty standard and poverty lines, while she coins them poverty thresholds later at a conference.

⁵⁸⁶ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 10.

⁵⁸⁷ Ibid. p. 10.

⁵⁸⁸ Ibid. p. 10.

farm units the poverty lines range from \$1,580 for a single person under age 65 to \$5,090 for a family of seven or more.⁵⁸⁹

Figure 4-3 Condensed version of Orshansky's poverty lines⁵⁹⁰

TABLE E.—Weighted average of poverty income criteria¹ for families of different composition, by household size, sex of head, and farm or nonfarm residence

Number of family members	Nonfarm			Farm			Nonfarm			Farm		
	Total	Male head	Female head	Total	Male head	Female head	Total	Male head	Female head	Total	Male head	Female head
	Weighted average of incomes at economy level						Weighted average of incomes at low-cost level					
1 (under age 65).....	\$1,580	\$1,650	\$1,525	\$960	\$990	\$920	\$1,885	\$1,970	\$1,820	\$1,150	\$1,185	\$1,090
1 (aged 65 or over).....	1,470	1,480	1,465	885	890	880	1,745	1,775	1,735	1,055	1,065	1,040
2 (under age 65).....	2,050	2,065	1,975	1,240	1,240	1,180	2,715	2,740	2,570	1,640	1,645	1,540
2 (aged 65 or over).....	1,850	1,855	1,845	1,110	1,110	1,120	2,460	2,470	2,420	1,480	1,480	1,465
3.....	2,440	2,455	2,350	1,410	1,410	1,395	3,160	3,170	3,070	1,890	1,895	1,835
4.....	3,130	3,130	3,115	1,925	1,925	1,865	4,005	4,010	3,920	2,410	2,410	2,375
5.....	3,685	3,685	3,660	2,210	2,210	2,220	4,875	4,680	4,595	2,815	2,815	2,795
6.....	4,135	4,135	4,110	2,500	2,495	2,530	5,250	5,235	5,141	3,165	3,165	3,165
7 or more.....	5,090	5,100	5,000	3,055	3,065	2,985	6,395	6,405	6,270	3,840	3,850	3,750

After introducing the standard, she discusses how adequate it is, but, since she does not state what the purpose is, the question remains, adequate for what? Nevertheless, she explains the standard and brings the statistics to life. She starts with a disclaimer noting that this measure of poverty is arbitrary.⁵⁹¹ ‘Few could call it too high. Many might find it too low.’⁵⁹² Then she illustrates the picture which corresponds to the poverty lines. She explains that ‘the homemaker is assumed to be a good manager and has the time and skill to shop wisely, she must prepare nutritious, palatable meals on a budget for herself, a husband and two young children – an average family – that would come to about 70 cents a day per person.’⁵⁹³ For example, the plan provides for less than 2 dozen eggs, a pound of protein and no milk at school for the children and a coffee at work for the husband.

The poverty standard is based upon the food plans, which are guidelines, not actual data-driven outcomes. This influences the foundation of the standard: families spending the amount given by the food plans need not meet the recommended calorie

⁵⁸⁹ She also makes a point about income before income taxes. For the economy the taxes had little difference, but for the modes but adequate budget would not include taxes. *Ibid.* p. 10

⁵⁹⁰ *Ibid.* p. 28.

⁵⁹¹ *Ibid.* p. 10.

⁵⁹² *Ibid.* p. 10.

⁵⁹³ *Ibid.* p. 10.

intake. Orshansky refers to a study of the US Department of Agriculture demonstrating only

10 percent of those spending less than the low-cost plan had meals furnishing the full recommended amounts of essential nutrition. Not more than 40 percent had even as much as two-thirds the amounts recommended. Only when food expenditures were as high as those in the low cost plan, or better, did 90 percent of the diets include two-thirds of the recommended allowance of the nutrients and 60 percent meet them in full.⁵⁹⁴

Thus, the dollar amounts required to meet even the economy food plan need not be spent efficiently and therefore may not meet the calorie intake recommendations suggested in the plan. Therefore the food intake resulting from an expenditure on food based on the poverty standard is likely to be below even what is established in the economy food plan, which in turn is already less than the low cost food plan. This demonstrates Orshansky's line of reasoning which looked for agreement on what undoubtedly was too little.

4.4.6 Varying the reference point

Orshansky sets up her definition of poverty against 'an ad hoc definition adopted in 1963.'⁵⁹⁵ She refers to the cut off points for the Council of Economic Advisors who used a \$3000 poverty line for a family with two or more children and \$1500 for one person alone. As the Council had argued in the Annual Report (1964): 'the analysis of the sources of poverty and of the programmes needed to cope with it, would remain substantially unchanged.'⁵⁹⁶ This quotation implies a role for the poverty line which does not include either the analysis of sources or programme analysis. This would be a more statistical function, in the sense that the poverty line could be seen as an instrument to represent poverty in the United States.

Orshansky acknowledges that programmes are selected for a variety of reasons other than statistical criteria. But 'at least the relative importance of various phases of the poverty question does depend on the criterion used.'⁵⁹⁷ While vaguely stated, she sees a role for the poverty criterion in 'various phases of the poverty

⁵⁹⁴ Ibid. p. 11 Data from the Department of Agriculture, Food Consumption and Dietary Levels of Older Households in Rochester, New York. 1964 (footnote 15 on p. 11).

⁵⁹⁵ Ibid. p. 11 This poverty line comes from Bob Lampman and was already in use before.

⁵⁹⁶ Council of Economic Advisers. 'The Problem of Poverty in America'. reprinted in *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440*.

⁵⁹⁷ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p. 11.

question.’ Again, the functions which Orshansky envisions for the poverty standard remain unclear.

Orshansky emphasises that her criterion brings in more large families and fewer farm families. She calibrates her poverty criterion against other measures, too. In comparison to other measures the aggregates are similar: the total number of persons living in poverty in 1963 out of the total US population is 33.4, 34.0, 34.5 or 34.6, depending on which poverty definition is used, as can be seen in Figure 4-4 below, reproduced from Orshansky.

Figure 4-4 Aggregate poverty count by alternative definitions⁵⁹⁸

TABLE 1.—Persons in poverty status in 1963, by alternative definitions

[In millions]

Type of unit	A ¹	B ²	C ³	D ⁴	Total U.S. population
Total number of persons	33.4	34.0	34.5	34.6	187.2
Farm	4.9	6.4	5.1	3.2	12.6
Nonfarm	28.5	27.6	29.3	31.4	174.6
Unrelated individuals	4.9	4.0	4.9	4.9	11.2
Farm2	1.4	.2	.1	.4
Nonfarm	4.7	2.6	4.7	4.8	10.8
Members of family units	28.5	30.0	29.6	29.7	176.0
Farm	4.7	5.0	4.9	3.1	12.2
Nonfarm	23.8	25.0	24.6	26.6	163.8
Children under age 18	10.8	15.7	14.1	15.0	68.8
Farm	1.8	2.4	2.1	1.5	4.8
Nonfarm	9.0	13.3	12.0	13.5	64.0

¹ Under \$3,000 for family; under \$1,500 for unrelated individuals (interim measure used by Council of Economic Advisers).

² Level below which no income tax is required, beginning in 1965.

³ \$1,500 for first person plus \$500 for each additional person, up to \$4,500. See testimony by Walter Heller on the Economic Opportunity Act, *Hearings Before the Subcommittee on the War on Poverty Program of the Committee on Education and Labor, House of Representatives, Eighty-eighth Congress, Second Session, Part 1, page 30.*

⁴ Economy level of the poverty index developed by the Social Security Administration, by family size and farm-nonfarm residence, centering around \$3,100 for 4 persons.

⁵ Estimated; income-tax cutoff is \$900; Census 1963 income data available only for total less than \$1,000; this figure has been broken into less than \$500 and \$500-999 on basis of 1962 proportions.

In her justification of the measure which follows, several points come forward to show what Orshansky values in a poverty measure. She justifies her differentiation between different family compositions. She makes clear that to her a poverty line is meant to accurately reflect economic well-being, which is not the same for all

⁵⁹⁸ Ibid. p. 11.

families: 'the power of the poverty line to approximate an equivalent measure of need determines how accurately the selected group reflects the economic well-being of families of different composition.'⁵⁹⁹ In addition, she emphasises the consistency of the measure: 'It may well be that the consistency of the measure of economic wellbeing applied to different types of families is even more important than the level itself.'⁶⁰⁰ This comment demonstrates that consistency over time in measurement is important to Orshansky, even though she also brings out the point that this poverty standard is still developing. Moreover, she suggests that while the food-income relationship alone as a poverty index can be questioned, her criterion can 'serve as an interim guide to equivalent levels of living among families in different situations.' Thus she views her standard as a temporary measure. Further improvements could include other variables, for example, allowance for geographic variables of community size and region and further study of income-consumption patterns.⁶⁰¹ Finally, while she is aware of the weaknesses of her standard, she also mentions that her criterion, using the economy plan definition, is 'the most complex and differentiated of the standards she compares.'⁶⁰²

4.4.7 The income deficit

After establishing the poverty standard and justifying the reasoning and steps involved, the poverty measure is immediately used to establish the deficits which the poor face and how these deficits relate to assistance programmes. Using the poverty lines to get a view on the dollar amounts set aside for the poor, the analysis identifies that in aggregate the poor had enough income to meet only 60 per cent of their needs. This deficit could have been offset by savings. The \$4.7 billion paid under public assistance programmes from Federal, state and local funds are included in the income of the poor. 7¾ million recipients received payments. However, Orshansky noted that: 'Not all persons who are poor receive assistance, but all persons receiving assistance are unquestionably poor.'⁶⁰³ This identifies that some of those targeted for assistance have not been reached. Thus, by identifying the poor and considering policy these numbers demonstrate how difficult it is for policy programmes to actually reach the target groups. While many government poverty programmes work

⁵⁹⁹ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' P. 11.

⁶⁰⁰ Ibid. p. 11.

⁶⁰¹ Ibid. p.12.

⁶⁰² Ibid. pp 12-3.

⁶⁰³ Ibid. p14.

indirectly via investments in education and employment programmes, for example, even direct payments do not necessarily reach the intended beneficiaries. The reasons for this failure are not clear: they could be due to government misdirection or beneficiaries failing to receive assistance through lack of information or effort. Still, the poverty measure functions here to identify the poor and in combination with the Census data becomes an instrument for government audit.⁶⁰⁴

4.4.8 Poverty and children, the aged, work and occupation

Orshansky's following sections use the poverty standard in combination with the Census data to view poverty in relation to children, the aged, work and occupation, in turn. The use of the poverty measure yields findings on children in poverty: 'Of all the persons in family units with income below the economy level (...) half were children under 18'⁶⁰⁵ These 15 million children represented more than 1 in 5 of all children living in families.⁶⁰⁶ Orshansky also relates the findings based on the poverty measure to policy data, which indicate how ineffective assistance is in reaching its beneficiaries: from the 15.6 million needy children only 3.1 million children received assistance in December 1963.⁶⁰⁷ The aged are also affected by poverty: two fifths of the population aged 65 or older are subject to poverty.⁶⁰⁸

The popular view of poverty is that a poor person is unemployed, yet Orshansky's approach disarms stereotypical prejudices about the poor. In relation to work, Orshansky finds that most of the men who head families are working but not earning enough for family needs. She brings forward impressive results and presents them with emphasis:

⁶⁰⁴ Unlike the other cases of this thesis, the US poverty measure is immediately used in conjunction with the Census data which yields rich layers of information.

⁶⁰⁵ Orshansky. 'Counting the Poor: Another Look at the Poverty Profile.' p 14.

⁶⁰⁶ Ibid. pp 14-5.

⁶⁰⁷ Ibid. p. 15.

⁶⁰⁸ Ibid. p. 17.

It is difficult to say which is the more striking statistic: that 6 percent of the families headed by a male year-round full-time worker were nevertheless poor, or that 25 percent of the families with a male head who did not have a full-time job all year were poor.⁶⁰⁹

There are many 'working poor' and Orshansky counters the thought that employment is the complete answer. 'Not even for the 5.2 million poor families with a head who worked less than a full year can jobs alone provide an answer.'⁶¹⁰

In relation to occupation and poverty, Orshansky uses the data to view statistics by occupation, differentiated for white and nonwhite males. 'Degree of upward mobility is affected by social environment as indicated by the occupation as well as by the education of the father.'⁶¹¹ With this observation, Orshansky reminds us that the causes of poverty are complex and socially and culturally embedded. In turn, this affects the relation between policy programmes and poverty numbers, the causal relation being indirect.

The last section of the article is entitled 'Implications' but she uses the space to urge action. Poverty has many varied causes and some groups in American society can be identified as vulnerable. Her writing style breathes a sense of urgency and action:

There are millions of children in 'normal' as well as broken homes who will lose out on their chance ever to strive as equals in this competitive society because they are denied now even the basic needs that money can buy. And finally there are children yet to come, whose encounter with poverty can be predicted unless the situation is changed for those currently poor.⁶¹²

Orshansky thereby calls for action, recognising that the number of measures must be many and varied in their turn. The article ends by bringing the poverty measure and profile to the policy domain:

⁶⁰⁹ Ibid. p. 20.

⁶¹⁰ Ibid. p. 21.

⁶¹¹ Ibid. p. 25.

⁶¹² Ibid. p. 26.

No single program, placing its major emphasis on the needs of one special group alone, will succeed. Any complex of programs that does not allow for the diversity of the many groups among the poor will to that degree leave the task undone. The poor have been counted many times. It remains now to count the ways by which to help them gain a new identity.⁶¹³

In conclusion, this deconstruction of the article emphasises several elements of the article which led to the acceptance of the poverty thresholds. Orshansky's article is persuasive, because of her clear argument, her writing style and mostly transparent processes. The article is clearly structured and easy to follow, yet rich in detail and its combination of approach and empirical material. Through her numerical poverty standard, which is set up on empirical data, she provides a poverty profile. In addition, she brings the statistics to life, not by relying on anecdotes as most poverty information does, but by illustrating what it means in practice to live under the poverty line. This adds colour to the numbers and Orshansky allows the reader to relate to the image she provides (for example, by specifying that the food plans do not include even a snack). As she reasons and works with the numbers, the information does not become idiosyncratic. On the contrary, because she combines the data with Census data and categories, the poverty profile is related to those groups which are more vulnerable. This provides valuable and useful information for policy makers.

The line of reasoning is transparently laid out, justifying the steps taken as well as indicating which decisions have been taken in which way. The article demonstrates expertise on the data (on which Orshansky had worked before) and statistical skills with the applications of defining a poverty line as well as the use of other sources, including the Census data in combination with the poverty standard. This yields the proportions and chances of certain groups to be poor, which in turn can be used for policy programmes. Orshansky persuasively and strongly advocates action, by means of her writing style. These elements of the article make 'Counting the poor' persuasive and therefore have influenced the later adoption of her poverty standard as the basis of the official poverty thresholds.

⁶¹³ Ibid. p. 26.

4.5 From footnote to the official US poverty measure

4.5.1 Distribution and use after the 1965 article: wide and instant demand

Poverty measures are produced and those who produce it define poverty when they measure it; the production process is important for its distribution and eventual use. However, production does not solely determine the eventual use of the measure or how the measure travels after it is made public. Measures can have different users than were envisioned, with different aims and therefore different uses. This is exactly what happened with the US poverty thresholds, which immediately travelled after production, without its producer having set a clear path.

For the US poverty thresholds, Orshansky did not have a clear aim in launching the product, nor was she even aware what her initial work would yield. Nor did she actively distribute the product. To Orshansky, it was not about an exact number. She later described it as a breakthrough in using data, which to her as researcher was the most exciting and interesting.

I wish I didn't have to go down as the lady who made the poverty index;
I wish I could become one of the people who because she thought up
things to investigate and ways to use the data, we got a better system.⁶¹⁴

Orshansky's initial aims were to develop a research tool and a way to demonstrate poverty to those in policy planning.⁶¹⁵ Her work was argumentative, action focused and as she would later describe it, 'quasi scientific.'⁶¹⁶ She is said to have had 'the economist's capacity to give quasi-scientific backing to political will.'⁶¹⁷ The focus on children stressed the need to view poverty not as an individual behavioural issue but as a problem which required government intervention, for the children growing up in poverty cannot be held responsible.⁶¹⁸ The aim was not to create an academically accurate measure, for Orshansky the purpose of research was action, not 'producing an intellectual treatise.' During an interview in 2001 she described

⁶¹⁴ *The New York Times*, 'Washington Talk; Q.&A.: Mollie Orshansky; the Hand That Shaped America's Poverty Line as the Realistic Index,' 4 August 1989.

⁶¹⁵ *The New York Times*, 'Mollie Orshansky, Statistician, Dies at 91,' 17 April 2007.

⁶¹⁶ Orshansky. 'Commentary: The Poverty Measure.' She based the measure in statistics and empirical sources yet did not aim for a theoretical development of the measure as her goal was action.

⁶¹⁷ 'Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,' 30 November 2002.

⁶¹⁸ Orshansky. 'Children of the Poor.'

her intentions as ‘to show what it was like not to have enough money. It’s not just that the poor had less money – they didn’t have enough.’⁶¹⁹

When Orshansky introduced the thresholds in the 1963 article, she did not distribute or market them in order to turn them into the official thresholds. As described in the previous sections, the measure appeared in a footnote and was only later expanded into a measure which can be used more broadly for all American families. Even though Orshansky might not have envisioned the path the thresholds took, she played an important role in the distribution of the measure. As a government official with extended experience of the sources and a background in mathematics, statistics and economics, her work was acknowledged. In addition, her work and writing had a strong argumentative and pressing tone aimed at conviction and action. Moreover, throughout her work she served on several committees and gave testimonies on poverty,⁶²⁰ further illustrating her reputation as a poverty expert.

Although Orshansky did not have the explicit aim of distributing the measure as the official poverty measure, her work was deliberately distributed. It was part of the research and activities at the Social Security Administration and Orshansky’s director Ida Merriam encouraged and promoted it.⁶²¹ According to Orshansky, she ‘had seen the importance of my work before I did.’

The initial distribution channel, as noted above, was the *Social Security Bulletin*. The 1963 article laid the basis for the poverty thresholds, but, in the language of the product approach, only introduced a first product design. Orshansky’s director had urged her to expand her work and the revised thresholds published in 1965 became the actual poverty thresholds. The latter article was distributed throughout the SSA. The lower of the two sets of poverty thresholds developed in this article⁶²² became the basis of the poverty thresholds which the Office of Economic Opportunity adopted as the working definition of poverty in May 1965.⁶²³ The distribution and use of the poverty thresholds are difficult to separate and each use of the measure also leads to its further distribution. In her

⁶¹⁹ ‘Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,’ 30 November 2002.

⁶²⁰ Fisher. ‘The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure,’

⁶²¹ Ibid.

⁶²² The article describes the poverty thresholds based on the low income food plan as well as the emergency plan while the latter became used for the official poverty thresholds.

⁶²³ Fisher. ‘The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure,’

articles, Mollie Orshansky was the producer, distributor and first user, for she not only developed the measure in the 1963 and 1965 articles, but also put them to use to identify the defining characteristics of the poor and to allow for her subsequent analysis of the poverty programmes. The SSA can be seen as the producer as well, with Orshansky as the inventor of the thresholds. This is similar to products being produced by a firm, an inventor designs a new product with a combination of raw materials (see Chapter 2). However, the SSA did not promote the thresholds or take sole ownership of the poverty thresholds. In the pamphlet 'Social Security: A brief history,' the poverty thresholds are not even mentioned in the list of the key dates in the 1960s in the history of US Social Security:

30 June 1961: The Social Security Amendments of 1961 were signed by President John Kennedy, permitting all workers to elect reduced retirement at age 62.

30 July 1965: President Johnson signed the Medicare bill at the Truman Presidential Library

12 December 1966: President Johnson visited Social Security headquarters to participate in the 15th Annual Honor Awards Ceremony—the only visit by a President.⁶²⁴

Thus, while the SSA was the first and most important user, it did not promote the poverty thresholds explicitly. Nevertheless, through the work and procedures which incorporated the poverty thresholds, their use increased and spread out. By declaring war on poverty, President Johnson became an important user who influenced the wide and rapid journey of the concept. The War on Poverty created a wide, instant market for the measure. The Office of Economic Opportunity started using the poverty thresholds in 1965 and their use has expanded to this day.

4.5.2 War on Poverty

Upon taking office in 1963, Johnson continued the plans which Kennedy had initiated after being confronted with poverty during his campaign.⁶²⁵ Johnson told

⁶²⁴ *Social Security Online.History. Updated Pamphlet of the History of Social Security in America* (Accessed 17 September 2011).

⁶²⁵ David Zarefsky. *President Johnson's War on Poverty: Rhetoric and History* (University, Ala.: University of Alabama Press, 1986). p. ix.

Walter Heller, the chairman of the Council of Economic Advisers,⁶²⁶ to continue the Council's research on poverty. In 1964 Johnson declared unconditional war on poverty in his state of the union speech in 1964:

‘Unfortunately, many Americans live on the outskirts of hope –some because of their poverty and some because of their color and all too many because of both. Our task is to help replace their despair with opportunity. This administration today, here and now, declares unconditional War on Poverty in America. I urge this Congress and all Americans to join with me in that effort.’⁶²⁷

Two months after the President called for action the antipoverty Bill in Congress was introduced and after five months the antipoverty programme,⁶²⁸ given the ‘more positive name’⁶²⁹ of the Economic Opportunity Act, became law.⁶³⁰ This Economic Opportunity Act was the ‘bill to mobilize the human and financial resources of the nation to combat poverty in the United States.’ The sense of positivity is clearly apparent, as is the heroic language which goes with war-vocabulary: ‘Because it is right, because it is wise and because, for the first time in our history, it is possible to conquer poverty; I submit, for the consideration of the Congress and the country, the Economic Opportunity Act of 1964.’⁶³¹

⁶²⁶ The Council of Economic Advisers is the agency within the Executive Office of the President that is charged with offering the President objective economic advice on the formulation of both domestic and international economic policy. *White House Website. Council of Economic Advisers. About* (Accessed 17 September 2011). Members during this time were:

Walter W. Heller chairman 29 January 1961 to 15 November 1964. James Tobin member 29 January 1961 to 31 July 1962. Kermit Gordon member 29 January 1961 to 27 December 1962. Gardner Ackley member 3 August 1962 and chairman 16 November 1964 to 15 February 1968. John P. Lewis member 17 May 1963 to 31 August 1964. Otto Eckstein member 2 September 1964 to 1 February 1966. Arthur M. Okun member 16 November 1964 and chairman 15 February 1968 to 20 January 1969. *White House Website. Council of Economic Advisers. Former Members of the Council* (Accessed 17 September 2011).

⁶²⁷ Lyndon B. Johnson. *Public Papers of the Presidents of the United States: Lyndon B. Johnson, 1963-64*, vol. 1, Washington, D. C.: Government Printing Office (1965). 91 Annual Message to the Congress on the State of the Union 8 January 1964

⁶²⁸ Some literature views all social policy programmes of the Kennedy/Johnson administration as the War on Poverty, however as social policy is usually part of government, I will follow Zarefsky and James in the limitations of viewing the plans in the Economic Opportunity Act as indicative of the ‘War on Poverty’ Zarefsky. *President Johnson's War on Poverty: Rhetoric and History*. p. xiii. Edward James. *America against Poverty, Library of Social Policy and Administration* (London: Routledge and Kegan Paul, 1970).p. ix.

⁶²⁹ Representative Adam C. Powell, Chairman of the ad hoc Subcommittee on the war on poverty programme of the committee on Education and Labor, Tuesday March 17, 1964. *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440*.

⁶³⁰ US Public Law 88-452, August 20, 1964.

⁶³¹ Johnson. *Public Papers of the Presidents of the United States: Lyndon B. Johnson, 1963-64*. pp. 375-380.

The rhetoric accompanying poverty programmes has illustrated how poverty is a morally loaded concept,⁶³² and not one easily dealt with in debates. The War on Poverty emphasises the war rhetoric but interestingly the enemy poverty was not explicitly defined before the programmes were proposed. An anti-poverty plan would imply a notion of the government deciding or taking responsibility for those who cannot help themselves, whereas the Economic Opportunity Act seems to have a connotation of the government encouraging the poor to create opportunities and pull themselves out of poverty. A further indication of the uneasiness with poverty as a morally loaded concept can be seen during the 1970s, in which the word poverty is replaced by 'low income' to make it less related to a moral notion.⁶³³ To develop the thresholds, Orshansky bypasses the conceptual and theoretical interpretations of poverty by basing her thresholds on the empirical sources which she employs, rather than starting with a conceptual definition. Her poverty definition is quantitative and based on reported facts, appealing to a more objective notion of poverty and not connecting any explicit normative issues between poverty and the government's responsibility.

4.5.3 The Hearings on the Economic Opportunity Act of 1964

Between 7 and 14 April 1964, Congress held the second sets of hearings for the Bill on the War on Poverty.⁶³⁴ Interestingly, whilst the \$3,000 line was explicitly referred to, the Orshansky measure was used only implicitly.⁶³⁵

The Chairman of the committee, Adam Powell, used the poverty numbers resulting from the \$3,000 measure to introduce the urgent need to start the programme, referring to the 'one-fifth of our Nation's population who have been left out of the flowing stream of prosperity.' He continues that 'it is really paradoxical that millions of Americans now live in poverty and deprivation in the midst of a general prosperity (...).' The poverty line of \$3,000 is then used to yield numbers to stress the point: 'It seems incredible that of the 47 million families in the United

⁶³² This is what can make the poverty measure a more difficult measure to alter as opposed to for example the consumer price index, which is a more generic and technical measure.

⁶³³ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure.'

⁶³⁴ *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440.*

⁶³⁵ Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.'

States in 1962, some 9.3 million or one-fifth of these families (...) had total money incomes below \$3,000.’⁶³⁶ Powell addresses the differences in poverty definitions and difficulties in accurately ascertaining the numbers of the poor. ‘There is no clear and unvarying standard of the total of goods and services that constitute a minimum level of living.’ Despite this, the line of \$3,000 is used. The links between the research of the Council of Economic Advisers, the statistics and the policies suggested are not made explicit during this discussion. This seems to imply that the programmes proposed were designed without direct reference to poverty measures, even though they were based on the work of the Council of Economic Advisers.

Regarding the target groups of the policy programmes, the Economic Opportunity Bill mostly focuses on two groups: young people and rural areas. These groups were not targeted nor selected upon based on them having incomes below \$3,000. Thus, while the hearings repeatedly refer to the explicit focus of this Act on the poor, the proposed programmes do not select their beneficiaries according to their poverty or according to a measurable standard, be it the \$3,000 poverty line or some other. The programmes are mostly focused on providing job opportunities, through training in the case of the youth programmes, so that ‘they can earn their way out of poverty.’⁶³⁷ The selection used for the urban and rural community action programmes is that financial assistance can be granted, focusing upon the needs of low-income individuals and families.⁶³⁸

Walter Heller, chairman of the Council of Economic Advisers, clarifies the dimensions of poverty in his statement and mentions the ‘widely accepted benchmark’ of an annual family income of \$3000. Support or evidence for this acceptance is not given. He also refers to the fact that ‘various estimates of the needs of a typical family have been made by the Social Security Administration and others. They solidly support a dividing line of \$3,000 for a family of four.’⁶³⁹ This is a reference to the work of Orshansky, who resented this implicit reference, feeling that

⁶³⁶ *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States. H.R. 10440. pp.1-2.*

⁶³⁷ During the hearings Walter Heller stated: ‘The essence of the President’s attack on poverty is the creation of new economic opportunities, a chance for the poor who are able to do so, to earn their way out of poverty.’ *ibid.* p. 29.

⁶³⁸ *Ibid.* p. 9.

⁶³⁹ *Ibid.* p. 26.

none of her work on the thresholds and differentiations between family types had been taken into account.⁶⁴⁰

The Annual Report of the Council of Economic Advisers (January 1964) was discussed during the Hearings. It refers to the publication of the Social Security Administration yet afterwards suggests an 'over-all income limit either higher or lower than \$3,000', acknowledging that this changes the statistical measure of the size of the problem. However, the report states that 'the analysis of the sources of poverty and of the programmes needed to cope with it would remain substantially unchanged.'⁶⁴¹ Using the Department of Commerce and Council of Economic Advisers, tables are supplied showing the number and distribution of poor families in 1959. The poor are defined as all families with a total money income of less than \$3,000 in 1959.⁶⁴² The discussion in the Hearings further varies in focus on the programmes, costs and applications. The dollars were to be spent equitably and the quantitative approach would create audit opportunities.⁶⁴³

In addition to the poverty lines, the role of statistics comes up in other responses as well, in a rather telling way. John Dent from the Committee of Education and Labor and the Subcommittee on the War on Poverty Programme addresses Sargent Shriver, who would become the director of the Economic Opportunity Office which was set up to implement the Act. Dent expresses his fear that statistics are viewed as more important than people. 'We seem to answer all problems with statistics. Statistics are wonderful for the economists but for the politician there is something more important and that is the people. Although they are part of the statistics I have not yet arrived at the point where I would classify my neighbors as figures.'⁶⁴⁴

⁶⁴⁰ 'Washington Talk; Q.&A.: Mollie Orshansky; the Hand That Shaped America's Poverty Line as the Realistic Index,' 4 August 1989.

⁶⁴¹ Council of Economic Advisers. 'The Problem of Poverty in America'. reprinted in *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States*. H.R. 10440. p. 35.

⁶⁴² Note at Table 10 Number and distribution of poor families, on Council of Economic Advisers. 'The Problem of Poverty in America'. reprinted in *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States*. H.R. 10440. p. 57. In addition it is noted that the data based on both 1959 and 1962 prices.

⁶⁴³ Council of Economic Advisers. 'The Problem of Poverty in America'. reprinted in *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States*. H.R. 10440. p. 71.

⁶⁴⁴ Council of Economic Advisers. 'The Problem of Poverty in America'. reprinted in *A Bill to Mobilize the Human and Financial Resources of the Nation to Combat Poverty in the United States*. H.R. 10440. p. 79.

This quotation demonstrates the tension between statistics and politics, since numbers can either give or lose focus. On the one hand, the statistics help to clarify a problem according to its definition, viewing poverty through numbers which allow comparison and overview. On the other, as seen in Dent's remark, policy is actually aimed at designing programmes to diminish poverty, but he sees the statistics as obscuring rather than clarifying the problem and its possible solutions.

When Sargent Shriver, who was known for his strict and demanding leading style,⁶⁴⁵ was appointed director of the Office of Economic Opportunity, he was keen to use numbers. This followed the trend set by the Department of Defence, which had started using cost-benefit analysis and quantified evaluation schemes in its policy making.⁶⁴⁶ Shriver used the expertise developed there in choosing new staff and furthered the numerical approach. Poverty measures thereby gained a use as an evaluation tool, in addition to representing poverty and guiding policy design. Thus, the initial use of the measure was strengthened by the pressure from government to increase the use of quantification for policy design and evaluation.⁶⁴⁷ In addition, the war rhetoric of the War on Poverty was reflected also in the operational side of the Office of Economic Opportunity. On the one hand the poverty research and information deepened, while on the other there was a sense of urgency to 'win the war' and act immediately, even without full knowledge or understanding of poverty. There had never been organised programmes on poverty as such; instead, the public policies relating to poverty had been produced by various departments. Now that 'the forces were brought together' there was a central base for decisions, but because no information had so far been assembled, there was a widespread and urgent need for poverty information. The previous measure had been the \$3,000 measure by Robert Lampman, a member of the Council of Economic Advisers who had worked on poverty analysis since the spring of 1963, providing Heller with data for a memorandum to Kennedy dated 1 May 1963.⁶⁴⁸ The measure lacked foundation and clear reasoning, whereas Orshansky's work provided the necessary foundation, reasoning and refinement, as well as immediate use, by combining the measure with

⁶⁴⁵ O'Connor. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century Us History*. Chapter 7.

⁶⁴⁶ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. and O'Connor. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century Us History*.

⁶⁴⁷ O'Connor. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century Us History*.

⁶⁴⁸ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure.'

the categories, that is, the information on the 'poverty profile' which was informative for policy making. Nevertheless, the policy designs were already in place having been discussed in the 1964 Act and Hearings. Therefore, while Orshansky's measure for Children of the Poor was already published and indirectly referred to in the Hearings, the measure was not used in the initial poverty programmes. Timing seems to have been the reason for the Hearings to discuss the War on Poverty Program, while the Bill mostly used the \$3,000 poverty line, and timing explains why Orshansky's thresholds are only implicitly referred to. However, when the Bill passed Congress, the Office for Economic Opportunity was set up and it adopted Orshansky's measure as the working definition of poverty.⁶⁴⁹ One of the reasons why the \$3,000 poverty line was used during the hearings seems to be that there was no alternative. However, when Orshansky's measure became known, it was adopted because it met the demand for a measure which offered a better foundation in empirical sources and a more solid line of reasoning.

The war rhetoric implied a certain speed and urgency, which Shriver was eager to provide. The focus on instant action was not served by the poverty information available at the time and therefore the demand for research increased straightaway as poverty rose up the agenda.⁶⁵⁰ While the Office of Economic Opportunity set up a variety of programmes, the Census bureau was involved with the statistical use of the thresholds and the administration started to use a summary of these thresholds, the poverty guidelines, as a criterion of eligibility and to determine the allocation of resources.

Thus, after their publication the poverty thresholds travelled fast. According to Orshansky, the reasons for success were threefold. Her thresholds were 'semi scientific,' they benefited from the coincidence in timing with the War on Poverty and they were close to the previously used \$3,000 benchmark.⁶⁵¹ Viewing her thresholds as products, they offered better quality than the previously available product, which lacked foundation. In addition, Orshansky's poverty measures offered differentiation according to family size and situation. Further competition, moreover,

⁶⁴⁹ Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.'

⁶⁵⁰ O'Connor. *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century Us History*.

⁶⁵¹ 'Making the Poor Count. The Poverty Line Came from a Woman with a Passion and a Memory,' 30 November 2002.

was not forthcoming. Her thresholds were stronger in empirical build up and line of reasoning. Her writing style and focus on action helped to promote the product by convincing the market. In addition, the War on Poverty had created much demand on all sides for poverty measures and information to accompany them, which her thresholds provided.

4.5.4 Use four decades later

During the 1960s, the thresholds received the attention brought by the War on Poverty which had placed poverty and the related information on the political agenda. The thresholds at once went far and persisted everywhere in the political domain. In addition to providing the official poverty count for the USA, the thresholds were used for administrative purposes. The poverty guidelines, a summary version of the thresholds, were established for a wide range of administrative uses and programme eligibility. By 2011, the following ‘open-ended or ‘entitlement’ programmes used the poverty guidelines as criteria of eligibility:

- the Supplemental Nutrition Assistance Program (formerly Food Stamps),
- the National School Lunch Program,
- certain parts of Medicaid,
- the subsidized portion of Medicare – Prescription Drug Coverage.⁶⁵²

In addition, there are many non-open-ended programmes – programmes for which a fixed amount of money is appropriated each year – which still use the poverty guidelines in 2011. The following list is reproduced to demonstrate the different uses:⁶⁵³

⁶⁵² Source: <http://aspe.hhs.gov/POVERTY/faq.shtml#programmeme> accessed 4 July 2011.

⁶⁵³ Source: <http://aspe.hhs.gov/POVERTY/faq.shtml#programmeme> accessed 6 November 2009.

- **Department of Health and Human Services:**
 - Community Services Block Grant
 - Head Start
 - Low-Income Home Energy Assistance Program (LIHEAP)
 - Community Food and Nutrition Program
 - PARTS of Medicaid (31 percent of eligibles in Fiscal Year 2004)
 - Hill-Burton Uncompensated Services Program
 - AIDS Drug Assistance Program
 - Children’s Health Insurance Program
 - Medicare – Prescription Drug Coverage (subsidized portion only)
 - Community Health Centers
 - Migrant Health Centers
 - Family Planning Services
 - Health Professions Student Loans — Loans for Disadvantaged Students
 - Health Careers Opportunity Program
 - Scholarships for Health Professions Students from Disadvantaged Backgrounds
 - Job Opportunities for Low-Income Individuals
 - Assets for Independence Demonstration Program
- **Department of Agriculture:**
 - Supplemental Nutrition Assistance Program (SNAP) (formerly Food Stamp Program)
 - Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
 - National School Lunch Program (for free and reduced-price meals only)
 - School Breakfast Program (for free and reduced-price meals only)
 - Child and Adult Care Food Program (for free and reduced-price meals only)
 - Expanded Food and Nutrition Education Program
- **Department of Energy:**
 - Weatherization Assistance for Low-Income Persons
- **Department of Labor:**
 - Job Corps
 - National Farmworker Jobs Program
 - Senior Community Service Employment Program
 - Workforce Investment Act Youth Activities
- **Department of the Treasury:**
 - Low-Income Taxpayer Clinics
- **Corporation for National and Community Service:**
 - Foster Grandparent Program
 - Senior Companion Program
- **Legal Services Corporation:**
 - Legal Services for the Poor⁶⁵⁴

As the list demonstrates, many departments and agencies have used the poverty thresholds for their programs, which shows how far the importance of the thresholds has spread.

⁶⁵⁴ US Department of Health and Human Services. *Frequently Asked Questions Related to the Poverty Guidelines and Poverty* (Accessed 17 September 2011).

Moreover, the importance can also be shown in terms of financial implications. To illustrate, in 1992 Michael and Citro⁶⁵⁵ produced the table (which is reproduced below as Figure 4-5) that categorises 70 programmes according to their use of a test for eligibility for the fiscal year 1992. The expenditures totalled \$279 billion. They conclude:

Of these 70 programs,

14 of them (20%), which account for 2 percent of the expenditures, use the poverty guidelines (or a multiple of them) as the sole criterion of income eligibility (see Part A of Table D-1);

13 of them (19%), which account for 56 percent of the expenditures, accord eligibility to people already participating in another program, such as Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI), and also permit other people to qualify by comparing their incomes to the poverty guidelines (see Part B of Table D-1)

⁶⁵⁵ Constance F. Citro, Robert T. Michael, and US National Research Council Panel on Poverty and Family Assistance (United States). *Measuring Poverty: A New Approach* (Washington, D.C: National Academy Press, 1995). pp. 434-7.

Figure 4-5 US Expenditures on Government Assistance Programs for Low-Income People, by Type of Income Test, Fiscal 1992[table D-1]⁶⁵⁶

Program ^a	Expenditures ^b (million \$)
<i>A. Programs that link eligibility solely to the federal poverty guidelines</i>	
Special Supplemental Nutrition Program for Women, Infants and Children ² ,600 (WIC)	
Maternal and Child Health Services Block Grant	1,059
Child and Adult Care Food Program	624
Community Health Centers	537
Community Services Block Grant	438
Special Programs for Students from Disadvantaged Backgrounds (TRIO Programs)	385
Legal Services	350
Summer Food Service Program for Children	203
Title X Family Planning Services	150
Foster Grandparents	66
Migrant Health Centers	58
Senior Companions	29
Follow Through	9
Special Milk Program (free segment)	2
Total	6,510 (2%)
<i>B. Programs that link eligibility to the federal poverty guidelines and also to participation in other programs (e.g., AFDC, SSI, or food stamps)</i>	
Medicaid	118,067
Food Stamps	24,918
School Lunch (free and reduced-price segments)	3,895
Head Start	2,753
Training for Disadvantaged Adults and Youth ^c	1,774
Low-Income Home Energy Assistance Program (LIHEAP) ^d	1,594
Summer Youth Employment and Training Program ^e	1,183
Job Corps ^e	955
School Breakfast (free and reduced-price segments)	782
Senior Community Service Employment Program	395
Weatherization Assistance	174
Commodity Supplemental Food Program (CSFP)	90
Vocational Education Opportunities, Disadvantaged Activities	N.A.
Total	156,580 (56%)
<i>C. Programs that link eligibility to a percentage of the local area median income defined by the Department of Housing and Urban Development</i>	
Section 8 Low-Income Housing Assistance	12,307
Low-Rent Public Housing	5,008
Rural Housing Loans (Section 502)	1,468
Child Care and Development Block Grant	825
Section 236 Interest Reduction Payments	652
Rural Rental Housing Loans (Section 515)	573

⁶⁵⁶ Ibid. pp. 43-7.

Program ^a	Expenditures ^b (million \$)
<i>C.—continued</i>	
Rural Rental Assistance Payments (Section 521)	320
Section 101 Rent Supplements	54
Section 235 Homeownership Assistance for Low-Income Families	45
Rural Housing Repair Loans and Grants (Section 504)	24
Rural Housing Preservation Grants (Section 533)	23
Home Investment Partnerships ^e	3
Total	21,302 (8%)
<i>D. Programs that have their own income eligibility standards (or that link eligibility to participation in another program)</i>	
Aid to Families with Dependent Children (AFDC)	24,923
Supplemental Security Income (SSI)	22,774
Earned Income Tax Credit (EITC)	9,553
Medical Care for Veterans Without Service-Connected Disability	7,838
Stafford Loans (formerly Guaranteed Student Loans)	5,683
Social Services Block Grant (Title XX)	5,419
Pell Grants	5,374
Foster Care	4,170
Pensions for Needy Veterans, Their Dependents and Survivors	3,667
Job Opportunities and Basic Skills Program (JOBS) (successor to the Work Incentive Program—WIN)	1,010
Child Care for AFDC Recipients (and ex-recipients)	755
'At Risk' Child Care (to avert AFDC eligibility)	604
College Work-Study Program	595
Supplemental Educational Opportunity Grants (SEOG)	520
Adoption Assistance	402
Emergency Assistance (EA) to Needy Families with Children	268
The Emergency Food Assistance Program (TEFAP)	250
Perkins Loans	156
Assistance to Refugees and Cuban/Haitian Entrants (cash component)	139
State Student Incentive Grant (SSIG) Program	127
Dependency and Indemnity Compensation (DIC) and Death Compensation for Parents of Veterans	68
Fellowships for Graduate and Professional Study	63
Health Professions Student Loans and Scholarships ^f	48
General Assistance to Indians	46
Medical Assistance to Refugees and Cuban/Haitian Entrants	42
Farm Labor Housing Loans (Section 514) and Grants (Section 516)	29
Social Services for Refugees and Cuban/Haitian Entrants	26
Indian Housing Improvement Grants	20
Rural Housing Self-Help Technical Assistance Grants (Section 523) and Rural Housing Site Loans (Sections 523 and 524) ^g	9
Ellender Fellowships	4
Child Development Associate Scholarship Program ^h	1
Total	94,583 (34%)

NOTE: The poverty guidelines are issued annually by the US Department of Health and Human Services (HHS). They are developed by smoothing the official poverty thresholds for different size families. For historical reasons, the guidelines are higher than the thresholds for Alaska (by 25%) and Hawaii (by 15%). A few programs use the official thresholds rather than the guidelines.

^a Programmes are listed in decreasing order of fiscal 1992 expenditures.

^b Expenditures include federal, state and local outlays for benefits and administrative costs.

^c These programs also permit eligibility on the basis of 70 percent of the Department of Labor lower living standard income level for specific areas when that level is higher than the poverty guidelines.

^d This program also permits eligibility on the basis of 60 percent of state median income.

^e This program links eligibility to 75 percent of state median income for families of the same size.

^f This program includes a provision to forgive loans to needy students who fail to complete studies, in which need is defined as a percentage of the federal poverty guidelines.

^g This program also permits eligibility on the basis of a percentage of the local area median income defined by the Department of Housing and Urban Development.

^h This program accords eligibility to people with incomes below 195 percent of the Department of Labor lower living standard income level.

This work thus demonstrates that government funding and resource allocation have become based on the thresholds. From the production and immediate establishment of the thresholds as the official poverty measure, the distribution and further use of the measure evolved organically, through use which spread out from the production domain within the SSA to become an important determinant not only of who gets assistance but also which dollar amounts are attached to which programmes. As the list shows, administrative and political interests are connected to the use of the thresholds, as resource allocation becomes dependent on the thresholds. When the thresholds were incorporated into a decision or eligibility procedure, they became embedded in the administrative processes, further strengthening the position and importance of the thresholds. They have become a tool for resource allocation and eligibility decisions and have large financial consequences. Changing the thresholds would involve political and financial consequences, making the alterations politically sensitive, as the next section discusses.

4.6 Difficulties of changing the measure

4.6.1 Unique characteristics of the poverty thresholds

In comparison to poverty measures in other countries, the US poverty thresholds have specific characteristics. Some of these have been determined by the production process, due to the producer's decisions or the availability of data at the time of production. The characteristics make the product stand out as distinct from other products. Different user groups have criticised some of the characteristics but the market has resisted changes during more than four decades.

First, the US poverty thresholds are a 'relative absolute' measure, as Orshansky described them.⁶⁵⁷ They are absolute in being based on a food intake which is necessary to survival. Yet the way in which this food intake is measured is based upon the food plans, which in turn depending on US consumption patterns, thus making the measure not 'purely' absolute, since they still depend on the cultural and social norms of food intake. There are other absolute measures, but since Peter Townsend's work on relative measures most Western countries have moved to relative poverty measures, for example, a poverty line of 60% of the median income.

A second characteristic of the US poverty thresholds is that they are income based, that is, the poverty thresholds are incomes to determine whether a household

⁶⁵⁷ Orshansky. 'Commentary: The Poverty Measure.' p. 23.

earns more or less than the minimum income line. When Orshansky developed her thresholds, good consumption data were not available, but since 1963 more and better data have been published.⁶⁵⁸

A third characteristic is that the poverty thresholds are differentiated per family size, age and residence. This is Orshansky's innovation and offers a differentiation to tailor the poverty line to the specific needs per type of family. This is different from the household notion used by Booth (Chapter 3) or the national measure in the HDI (Chapter 5) and the individual measure of a dollar-a-day (Chapter 5).

A fourth characteristic is that Orshansky differentiated between farm and non-farm families and set the difference at 70%. This has changed in the two minor reforms that occurred with the measure.

Related to the third and fourth characteristics is that Orshansky innovated a 'representative family type.' Her production procedure made this innovation possible because she reasoned from national food plans and consumption data to aggregate income levels, which would then correspond again with the individual families. Hereby the poverty thresholds clarified eligibility decisions for individual families as well as aggregate use to determine the number and proportion of poor people in the US. Moreover, it objectified poverty into a number, while it created poverty thresholds for typical families which people could relate to. People could compare the thresholds to their own income level and the reasoning from food plans to thresholds was not too complicated to follow. In more general terms, it was clear what it would mean for an individual family to be in poverty without the problem of creating idiosyncratic cases of poverty from interviews, newspaper articles or other poverty information.

Sixth, although the main reasoning, starting from nutrition, had been used before,⁶⁵⁹ the production procedure was unique in that Orshansky combined existing data from the food plans with Census information on the differences in family size.

Seventh, connected to the previous characteristic is the way in which Orshansky set up the multiplier. The basis is the food plans, which are then compared to the main consumption data to identify how much more a family needs.

⁶⁵⁸ Ruggles. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy.*, Blank. 'How to Improve Poverty Measurement in the United States.'

⁶⁵⁹ Most absolute poverty measures start with nutrition, as Booth also did (Chapter 3).

This multiplier aspect has gained much criticism – on whether it was correctly set and whether it should be updated.

Eighth, the poverty thresholds did not start with a conceptual or theoretical notion of poverty (such as the case with the HDI, Chapter 5) or with a purely empirical notion based on surveys (such as Booth, Chapter 3). There is a sense of taboo connected to poverty in the US which is also reflected in the period, when the word ‘poverty’ was not to be used within policy settings. Instead the terminology was changed to ‘low income’ families.⁶⁶⁰ Thus, poverty was a loaded subject and the change of even a technical way of measuring it became a unsafe subject for politicians. The government has always measured many things and the way of measurement has often changed, including measures which have similar issues with sunk costs and different user groups, such as the CPI. Whereas the CPI and the poverty thresholds are similar in serving different user groups with different aims, the discussion on changing the CPI can remain more technical and not be instantly connected to moral considerations.

Last, there is an issue with responsibility, as Rebecca Blank argues.⁶⁶¹ She served on several of the interagency poverty committees and is a member of the National Academy of Sciences. According to her, the main reason why the poverty measures have not changed is the ‘odd historical accident that led the Executive Office of the President to be in charge of the official poverty measure.’ Therefore the key political decision makers are within the White House and they have to take direct responsibility for any changes in official poverty measures, unlike the treatment of other economic statistics (including the CPI) for which statistical agencies carry responsibility.⁶⁶² Therefore, all these characteristics have made the US thresholds unique, but they would not inhibit change by themselves if the President decided to change them. However, a change in the thresholds would imply an increase in the poverty numbers, which is not a favourable activity for any President to be associated with.

⁶⁶⁰ Fisher. 'The Development of the Orshanksy Poverty Thresholds and Their Subsequent History as the Official US Poverty Measure.'

⁶⁶¹ Blank. 'How to Improve Poverty Measurement in the United States.'

⁶⁶² *Ibid*, p. 242.

4.6.2 Uses and users: differences in types of user inhibiting change

Most of the characteristics above have received reactions from user groups. Since the 1960s, different user groups have attempted to change the thresholds, including academics, interagency committees, politicians and activists. However, the debates have not reached agreement and different views on the thresholds, the prioritisation of their characteristics and their purposes have inhibited change.

From their initial production, it was argued that the multiplier (characteristic seven) was not correctly set and newer consumption data suggest that a different proportion of budget is spent on food; therefore the multiplier should have changed accordingly. In 1967 one-fourth of the budget was spent on food, not one-third as the 1955 data suggested.⁶⁶³ Over time, the data changed and, even accepting Orshansky's reasoning and use of data, this would suggest a different multiplier. As more accurate data have become available, it is argued that the production procedure as a whole (characteristic six) could have been improved, including changing the measure from income to consumption data (characteristic two).⁶⁶⁴ There are also suggestions to change the way in which poverty is perceived (characteristic eight) and to alter the entire measurement to relative measures (characteristic one).

The first minor revision to the thresholds occurred in 1969. A Census Bureau publication⁶⁶⁵ on 12 August described and explained the revisions in the thresholds: the original SSA base year (1963) for income criteria for nonfarm families was retained, but there was a switch in annual updates. Instead of changing the cost of the US Department of Agriculture's Economy Food Plan, the annual adjustments in the poverty thresholds were now based on the annual change in the Consumer Price Index. In addition, the weights used to describe the difference between farm and non-

⁶⁶³ Fisher. 'The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure.'

⁶⁶⁴ Blank. 'How to Improve Poverty Measurement in the United States.'

⁶⁶⁵ US Bureau of the Census. and US Department of Commerce. 'Revision in Poverty Statistics, 1959 to 1968,' *Special studies. Series P-23, No. 28* August 12, 1969.

farm poverty thresholds were set at 85 per cent rather than 70 per cent of the corresponding non-farm poverty thresholds.⁶⁶⁶

One of the most thorough examinations of the poverty measurement occurred between 1974 and 1976. The Education Amendments of 1974 initiated the reassessment of the poverty measures. Section 823 of the Education Amendments of 1974 (PL93-380) required the usefulness of a relative measure of poverty to be assessed. This was authorised by Title I of the Elementary and Secondary Education Act of 1965. The user therefore was the Department of Education, which used the thresholds for allocating resources to school districts. The Taskforce Poverty was set up and in April 1976 the report 'The Measure of Poverty' was presented to Congress.⁶⁶⁷ It provided a wealth of information and background information in its seventeen technical papers. In the table of contents, Technical Paper XI, entitled 'Update of the Orshansky Index' was written by Orshansky,⁶⁶⁸ but was never published. The report included a variety of proposals, but none were recommended:

This report does not recommend any particular changes in poverty measurement or concept. It shows that there are many alternatives possible, each with its own advantages and disadvantages. Unfortunately, many of the more conceptually desirable changes are among the most difficult to implement. There are options that would increase the poverty count; there are equally valid changes that would reduce it. It can be concluded that any poverty definition may be subject to valid criticism and that any definition is inherently value laden. Nevertheless, there is an advantage in the continued publication of an official statistical series of a poverty measures as an index of national achievement in reducing the extent of poverty.⁶⁶⁹

The report thus resulted in no changes to the way that poverty was measured.

1981 did see revisions to the thresholds, but again they were marginal, altering three categories: the farm/nonfarm differential was eliminated, the

⁶⁶⁶ Orshansky explained this in her memorandum on the history of the poverty line on 1 July 1970: 'The Memorandum for Dr. Daniel P. Moynihan.' Reprinted in Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.' pp. 232-7. p. 236. Moreover, the formal decision was distributed as a transmittal memorandum in Exhibit L of Circular No. A-46. Definition of poverty for statistical Purposes. Robert P. Mayo, director of the Executive Office of the President, Bureau of the Budget. Circular No.A-46, Transmittal Memorandum No. 9. Reprinted in *ibid.* p. 256.

⁶⁶⁷ Education and Welfare. US Department of Health. 'The Measure of Poverty. A Report to Congress as Mandated by the Education Amendments of 1974,' (1976).

⁶⁶⁸ Orshansky. 'The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974. Technical Paper I. Documentation of Background Information and Rationale for Current Poverty Matrix.' p. viii.

⁶⁶⁹ US Department of Health. 'The Measure of Poverty. A Report to Congress as Mandated by the Education Amendments of 1974.' Executive Summary, p. xxvi.

distinction between ‘families with a female householder, no husband present’ and ‘all other families’ was removed and the largest category of family size was extended to nine persons or more. The changes reduced the number of cells in the matrix of poverty thresholds from 124 to 48.⁶⁷⁰

In 1990 Patricia Ruggles published *Drawing the Line*, which was not an individual effort, as demonstrated by the large number of connections and linkages the author and book have with the relevant institutions. The research was supported by the National Science Foundation, the US Bureau of the Census and the American Statistical Association/National Science Foundation Fellowship Program, which is sponsored by the NSF and the Bureau of the Census. Additional support came from the Urban Institute under a grant from the Ford Foundation and Rockefeller foundation.⁶⁷¹

Ruggles acknowledges that poverty measures are problematic: ‘Poverty is ultimately a normative concept, not a statistical one.’⁶⁷² She emphasises the uses of the poverty measure for evaluation and eligibility: ‘The poverty line is important today not only as a tool for general policy assessment, but also because eligibility for many specific assistance programmes is tied directly to this standard.’ She acknowledges that an increase in the poverty line would affect eligibility and therefore costs but also notes that Congress could choose to revise eligibility rules to prevent spending levels from rising.⁶⁷³

She concludes with various suggested changes to the official poverty measurement: first, revision of the system of poverty thresholds; second, re-examination of the system used to adjust thresholds for differences in family needs; third, reconsidering the use of lower poverty thresholds for the elderly;⁶⁷⁴ fourth, changing the concept of the US Income; fifth, reconsidering the accounting period; and finally, accounting for the assets and other resources.⁶⁷⁵ Again, no changes were made.

In 1990 the Joint Economic Committee held hearings on poverty measurement and the Council of Economic Advisers proposed statistical changes.

⁶⁷⁰ Fisher. ‘The Development of the Orshanksy Poverty Thresholds and Their Subsequent History as the Official Us Poverty Measure.’

⁶⁷¹ Ruggles. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy*. p. xvi.

⁶⁷² *Ibid.* p. xv.

⁶⁷³ *Ibid.* p. xv.

⁶⁷⁴ *Ibid.* pp. 170-1.

⁶⁷⁵ *Ibid.* pp. 171-2.

The National Academy of Sciences appointed a panel which yielded the 1995 publication '*Measuring Poverty: A new approach*'.⁶⁷⁶ Again, no changes in the poverty thresholds resulted from this publication.

Attempts to improve the measure continued. On 1 August 2007 there was a hearing on measuring poverty in America.⁶⁷⁷ The presidential address of the Social Science Society in 2008 argued for change.⁶⁷⁸ In September 2008, bills were introduced in the Senate and the House of Representatives which called for an improved poverty measure Senator Christopher Dodd and Representative James McDermott introduced the Measuring American Poverty Act of 2008⁶⁷⁹ but it failed to result in action.⁶⁸⁰

By 2010 a different route had been chosen: instead of trying to change the measure, an extra one was produced. The recommendations from the 1995 publication together with additional research have served as a basis for plans to produce the 'supplemental poverty measure' that, according to the announcement of the US Commerce Department 'will use the best new data and methodologies to obtain an improved understanding of the economic well-being of American families and of how federal policies affect those living in poverty.'⁶⁸¹

While the initiative to create the new statistic was included in President Obama's 2011 budget proposal, it was not funded and therefore not in production: 'The Census Bureau and the Bureau of Labor Statistics do not currently have the resources necessary to move the Supplemental Poverty Measure from research mode to production mode.'⁶⁸² The research on poverty measures still continues.

Not only does this suggest a different kind of attempt to change the official statistics, given that previous attempts had failed; it also shows the variety of

⁶⁷⁶ Citro, Michael, and US National Research Council Panel on Poverty and Family Assistance (United States). *Measuring Poverty: A New Approach*.

⁶⁷⁷ US subcommittee on income security and family support of the committee on ways and means US House of Representatives. 110th Congress. First session. Serial No. 110-56. *Measuring Poverty in America*, 110, 1 August 2007,

⁶⁷⁸ Blank. 'How to Improve Poverty Measurement in the United States.'

⁶⁷⁹ *A Bill to Amend Title Xi of the Social Security Act to Provide for an Improved Method to Measure Poverty So as to Enable a Better Assessment of the Effects of Programs under the Social Security Act, and for Other Purposes*.

⁶⁸⁰ *Institute for Research on Poverty. How Is Poverty Measured in the United States?* (Accessed 17 September 2011).

⁶⁸¹ *United States Department of Commerce Press Release on 2 March 2010: Census Bureau to Develop Supplemental Poverty Measure* (Accessed 17 September 2011).

⁶⁸² *United States Census Bureau. Poverty - Experimental Measures. Update on the Supplemental Poverty Measure* (Accessed 17 September 2011).

departments involved within government and the vast numbers of research efforts and programmes needed to form the basis for the change.

The different user groups have different interests and prioritise different characteristics of the poverty thresholds. Agreement or alignment of these interests has proved difficult. Since the 1960s several interagency committees have sought to open up the measure, so as to bring it back to the production domain. However, as the uses have become too varied and too many different users with different interests have become involved, no agreement has so far been reached which would have led to alterations in the poverty measure of the US, to the point where attempts to change the measure have been abandoned.

4.6.3 System dependence

Blank argues that there were three reasons for the lack of change, despite agreement that the poverty measure needed it. First, the distribution of who was poor would change, affecting different interest groups. Second, the funding allocation depended on the thresholds. Third, a small group of statisticians and economists supported the change but it was 'not a primary constituency for any administration.'⁶⁸³ Thus 'despite widespread agreement about some of the deficiencies of the current official poverty line, no substantial changes in that measure have occurred.'⁶⁸⁴ Her historical explanations of the situation 'being stuck' are threefold. First, as noted above, the President bears primary responsibility for the poverty thresholds. Second, 'changes to poverty have become harder the longer the statistic has gone without changes, in part because the current poverty measure is used by a large number of programmes.'⁶⁸⁵ Third, related to the moral and normative issues connected to poverty: 'a key difficulty in seeking agreement about a new alternative poverty measure is that "poverty" is an inherently vague concept and developing a poverty measure requires a number of relatively arbitrary assumptions.'⁶⁸⁶

The way in which the poverty thresholds developed can be coined as path dependent, determined by more than its own elements alone and determined by its origin and context. More than path dependence, the lack of changes can be explained by a notion of system dependence. When the measure was produced, the distribution

⁶⁸³ Blank. 'How to Improve Poverty Measurement in the United States.' pp. 240-1.

⁶⁸⁴ Ibid. p. 242.

⁶⁸⁵ Ibid. p. 242.

⁶⁸⁶ Ibid. p. 243.

went on different paths, spreading out like a web. As Blank claims, diverse interest groups were affected by the thresholds from the start and over time the variety of users grew. In addition the strands of the web grew in importance because with the variety of users, the funding and financial consequences of the thresholds grew over time to yield the list described in the previous section.

In terms of the interest groups which favoured the change, the group was small compared to the other groups involved with the measure: the academics versus bureaucrats, politicians and the beneficiaries of poverty programmes. The argument for making the measure accurate had to outweigh the arguments relating to political and financial standards, procedures and consequences. By merely looking at the measure and its components, these aspects are overlooked. These were the factors which embedded the thresholds within the political and administrative system and the thresholds then became dependent. In addition, Blank argues that to change the measures one had to deal with the way that the responsibility was set up, the way large number of programmes had become dependent and the fact that once one tried to change the measures, it became a moral issue that was difficult to agree upon. These factors again demonstrate that the thresholds are not to be viewed in isolation, but that they work within a system with political strings attached, determining financial and procedural decisions; and they depend on moral discussion not only over what poverty is but also over what the government's responsibility for action would be.

The 'system dependence' interpretation of the lack of changes can be seen in two ways. On the one hand, the measure travelled fast after production as it served different purposes of a variety of users. The path quickly became difficult to alter because of it split into different paths and the lack of alternative products and sunk costs of putting the measure into place for different programmes. On the other hand, the measure travelled widely, creating system dependence among the different interest groups as they became dependent on the measure. Such interest groups included the way that administrators worked, the poor received individual assistance and poverty was measured. This meant that even when the discussions were agreed upon and the moral debates were decided, it might not be politically and economically feasible to actually change the measure – for much funding would

automatically increase. Ruggles⁶⁸⁷ points out that the government can decide to change this direct linkage between the decision process and the poverty lines, or can decide to alter the financial consequences by lowering the level of support per household or changing the benefit and welfare structures. However, as Blank⁶⁸⁸ argues, when the Executive Office of the President is directly responsible, this becomes unlikely, given the political pressures both financial and of reputation. Any change in the measure would increase the thresholds and thereby increase the number of people who would be counted as poor and for any President this message has few attractions.

Since the different user groups have different interests and prioritise different characteristics of the poverty thresholds, it is hard to reconcile or even align them. Since the 1960s several interagency committees have tried to change the measure but with the varied uses of different user groups with different interests, coproduction between the groups and between the producer and the users has become too difficult. System dependence, establishment of the thresholds as a standard, the excessive costs of changing the measure and the producers not solely owning the measure have ensured that the measure has not changed since the 1960s.

4.7 Conclusion

This chapter has analysed the developments of the US poverty thresholds since 1963 and asked how the poverty thresholds developed from a footnote to the official poverty thresholds and why they did not change in the following four decades. The product approach offers insights into the production, distribution and use of the thresholds.

The question of how the thresholds developed from a footnote to the official poverty measure start with the producer, covering Orshansky's personal, educational and professional experience, which determined the choices and line of reasoning taken in her innovative approach to poverty measures.

Her background as a poor second generation immigrant from a large family informed her poverty knowledge from personal experience and can be linked to her choices in the elements of the poverty measure: one of the unique features of the US poverty measure is that the households are differentiated for family size. In addition,

⁶⁸⁷ Ruggles. *Drawing the Line: Alternative Poverty Measures and Their Implications for Public Policy*.

⁶⁸⁸ Blank. 'How to Improve Poverty Measurement in the United States.'

her education allowed her to approach poverty from a statistical, mathematical and economic perspective and provided her with the tools to provide a semi-scientific basis for the work. Her professional experience gave her familiarity with the food plans, while the correspondence with the families allowed her to have a transparent line of reasoning. In addition, her passionate action-driven personality shines through her work and helped its reception. She connected measurement data to policy and planning.

While information about the producer was important for clarifying the choices of elements taken into account and the foundation of the thresholds, focusing on the measure itself is not enough to explain why this measure was adopted. The measure was not intended as an official poverty measure, but the War on Poverty created a wide instant market for poverty information. The previous measures used had not been grounded, such as the \$3000 one-size-fits-all measure of Robert Lampman, but this proved no competition to Orshansky's innovative approach.

While production and distribution explain the development from footnote to the US thresholds, the usage domain helps to explain why the measure has not been updated since 1963.

From the start there were different users of the measure who had different interests. In addition, there are different levels at which the poverty thresholds play a role. Being path dependent, the measure travelled far and fast after its initial set-up and the weight gained during this travel proved difficult to shake off. While there have been several interagency committees and governmental attempts to discuss the updating of the measure, the different consequences of doing so which have been gained during its travel have proved too difficult to align. For example, a change in the way that poverty is measured will yield higher poverty numbers and as the poverty thresholds determine resource allocations, a change becomes politically and financially problematic. As the differences in use and levels are difficult to align, the debates have still not resulted in significant change.

The chapter has shown the development of the American poverty thresholds and why after more than four decades and various efforts they have not been updated. The case shows that it is not the product alone that matters. Poverty measures and their impact are complex and need to be analysed in context. The producer also matters; Orshansky's background is informative for her interest and knowledge of poverty and ways to measure it with quantitative skills using a variety

of empirical sources for the American situation. However, the measure by itself does not explain its development. One of the reasons why the thresholds developed from a footnote to the official measure was that it was in the right place at the right time. In addition, Orshansky's measure became the official threshold because it came from the inside, an option to measure poverty from within the US government, which at the time was focusing on poverty. Orshansky can be seen as the inventor within the SSA as the main producing body. Orshansky's boss was the one who made the link with the newly declared War on Poverty and subsequently Orshansky's work developed into the thresholds. They were immediately taken up and established as the official poverty measure, despite the shortcomings which Orshansky herself had pointed out shortly after it had already established itself as a standard.

The measure has proved very resilient and difficult to change. Again, it was not the inherent properties of the measure that dictated this. The answers lie in the user domain. There was no lack of suggested improvements or alternatives. Instead, the measure instantly gained various users who used it with different purposes. And though these users were actually willing to change the measure, they still failed.

While path dependency as an answer has the connotation of a singular road, the US poverty thresholds immediately dispersed into different roads and became interlinked, implying that system dependency would be a better diagnosis of the developments. The complexity of the roads and directions made it more difficult to bring the different users back to a single point as a way to update the measure. In terms of interests and weight attached, the implications of the thresholds can be seen to have spread and formed a growing and complex system. With its additional functions and users, the measure could not be brought back to the footnote domain in which it could be altered. Instead, the efforts and research on ways to change the measure have been unsuccessful for more than forty years. Consensus on the measure has proven very difficult to achieve.

The product approach has brought this new angle on the US poverty measure by allowing the investigation to trace the production and usage domains, analyse the measure and place it in context. It also demonstrates the politics of events: the timing was essential for the poverty thresholds and the political need at the time for a measure in connection to the War on Poverty provided increased demand for poverty statistics. Moreover, there was an inside option to serve this demand. In addition, the thresholds were used to represent and to act upon poverty. They not only captured

American poverty in numbers which could be representative statistics, but were also used as a decision tool for welfare assistance and became integrated in multiple programmes. All these programmes had implications, budgetary for the government, but also directly for the poor. Therefore the US case demonstrates the link between the conceptual and measurement stage of quantification, as well as creating traction for use by administrators and those channelling funds towards poor people. This happened through larger programmes, such as those initiated or developed by the 'War on Poverty,' but also directly in terms of welfare assistance. This varied use shows the great impact, both operationally and financially, of the poverty measure. In addition, its increased weight attached to the varied uses of the measure has made it more complicated to agree on the best direction in which to change the measure, which in turn has inhibited the updating of the US poverty thresholds.

5 Competition between global development measures: the Human Development Index and the Dollar-a-Day

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5.1 Introduction

At the end of the 1980s three economists gathered to discuss what would become a well-known measure of development. They were Amartya Sen, who later won the Nobel Prize in 1998 for his contributions to welfare economics, Meghnad Desai, Professor of Economics at the London School of Economics and Mahbub ul Haq, Special Advisor to the United Nations Development Program (UNDP). They wanted to produce a measure which would consider people as the end goal of progress rather than the economy, with the product design focusing on development and incorporating elements such as education and health. The origins of the Human Development Index (HDI) were thus set. In 1990 the UNDP, the organisation within the UN which is mandated with development issues, introduced the HDI: a composite index representing human development as a number between zero and one where a higher score means higher development. The aim of the producers was not merely to represent development in a number, it was also to influence policy and make an impact.

As with Booth's measurement⁶⁸⁹ and the US poverty thresholds,⁶⁹⁰ the HDI has become a successful measure with different user groups. The HDI is more recent than the other two cases, originating in 1990; and its focus is global rather than local or national. These features are shared by the dollar-a-day poverty measure from the World Bank,⁶⁹¹ which was also developed in 1990 and had a global approach. Both measures are offered in the same market in the development field and can be seen as competing for the same users.

While technically a measure for development rather than poverty, the HDI has integrated efforts on the one hand to describe global inequality and development themes and on the other to aid interventions aimed at change. The measure has become representative of an approach which seeks to provoke global change by introducing a new perspective on development. It takes the interdisciplinary approach of incorporating economic, educational and health data into the same index. The human development approach has, since its introduction in 1990, changed the way that national development can be viewed from a global perspective, using the same methodology to assess development in all countries. It allows for comparisons

⁶⁸⁹ Chapter 3.

⁶⁹⁰ Chapter 4.

⁶⁹¹ Hereafter called dollar-a-day.

between countries and therefore demonstrates global inequality from a broader perspective than focusing on income data alone. The index has aimed to represent development on a global level and has attracted much attention through its use by academics, politicians and the public.

This chapter uses the product approach to answer the questions: ‘How successful has the HDI been and how has the HDI competed as an index with the dollar-a-day?’ The HDI literature has hitherto mostly focused on the index itself and the elements which make up the measure.⁶⁹² However, whilst these issues matter in the product design aspect of the production, the production process entails more factors and stakeholders. This chapter broadens the scope to analyse other important variables in the production domain. The product approach makes it easier to analyse the competition with the World Bank and its dollar-a-day measure, also introduced in 1990. Analysing the history of the HDI shows that the global aspects of the HDI, the emphasis on marketing and distribution and engagement with the users have determined its success, not its statistical make-up, which has been actively criticised.⁶⁹³ The product approach is used to discuss first the production domain of the HDI, which is then contrasted to the World Bank as a competitor in the production domain. The users and use of the HDI are next discussed, after which the interactions between the users and the producers of the HDI are contrasted with those in the case of the dollar-a-day.

5.2 Production domain of the HDI

5.2.1 Producers

The producers of a number determine the way the quantification process is set up and in which the production takes place. Their background and goals influence the final product and the way in which the number functions after production. Comparable to a multinational enterprise, the initiator and investor of the HDI is an international organisation, the UNDP, which has its national offices and franchised products. The UNDP, the global development network of the United Nations, is on the ground in 177 countries.⁶⁹⁴ Its aim is to advocate for change and connect countries to

⁶⁹² See Section 5.5.2.

⁶⁹³ See Sections 5.4 and 5.5.

⁶⁹⁴ *United Nations Development Programme Website. Our Work* (Accessed 17 September 2011).

knowledge, experience and resources to help people build a better life.⁶⁹⁵ The UNDP was the institutional producer of the HDI.

The importance of the UN in the development field is acknowledged by Sen, who says that the UN has been at the centre of development measurement: 'The UN was later on at the centre of criticizing and challenging the ongoing reliance on the GDP. The critique came mainly through the Human Development Reports in particular and trying to replace the GDP by the Human Development Index.'⁶⁹⁶

The three initiators of the HDI, Mahbub ul Haq and Amartya Sen, who are seen as the intellectual parents of the HDI, and Meghnad Desai, who took part in the initial conversations which laid the basis for developing the new measure, all had an economics background and, perhaps significantly, all were born in a developing country, India. When Mahbub ul Haq finished his degree in Cambridge he worked as chief economist of the Pakistani government and also for the World Bank⁶⁹⁷ before he was asked to set up a Human Development Office at the UNDP and produce the first Human Development Report (HDR).⁶⁹⁸ He persuaded Amartya Sen, with whom he studied in Cambridge, to become involved.⁶⁹⁹ Sen has been recognised as a leading academic in at least four fields: social choice theory, welfare economics, economic measurement and development economics.⁷⁰⁰ By 2001, according to his CV, he held no fewer than 53 honorary degrees.⁷⁰¹ In 1998 he won the Nobel Prize and has been dubbed the 'Mother Theresa of Economics.'⁷⁰² Although he was initially hesitant about the HDI, Sen embraced the human development approach and worked on the concepts as well as on the capability approach.⁷⁰³ Sen became the Founding President of the Human Development and Capability Association, launched in September 2004, which joined the two concepts. The association 'promotes research from many disciplines on problems related to impoverishment,

⁶⁹⁵ *United Nations Development Programme Website. About Us* (Accessed 17 September 2011).

⁶⁹⁶ Quoted by Richard Jolly, Louis Emmerij, and Thomas George Weiss. *UN ideas That Changed the World* (Bloomington, Ind.: Indiana University Press, 2009). p. 129.

⁶⁹⁷ As an adviser to World Bank president Robert McNamara, who had previously been part of the US War on Poverty (see Chapter 4).

⁶⁹⁸ Jolly, Emmerij, and Weiss. *UN ideas That Changed the World*. p. 188.

⁶⁹⁹ Amartya Sen. 'A Decade of Human Development,' *Journal of Human Development* 1, no. 1 (2000). p. 17.

⁷⁰⁰ Professor in Economics Sudhir Anand quoted in *The Guardian*, 'The Guardian Profile: Amartya Sen. Food for Thought,' 31 March 2001.

⁷⁰¹ *Ibid.*

⁷⁰² *Ibid.*

⁷⁰³ Developed by Amartya Sen, see David Clark. 'Capability Approach,' in *The Elgar Companion to Development Studies*, ed. David Clark (Cheltenham ; Northampton, MA: Edward Elgar, 2006), pp. 32-45.

justice and well-being.⁷⁰⁴ The philosopher Martha Nussbaum, who succeeded Sen as President in 2006,⁷⁰⁵ had collaborated with him on the capability approach throughout the 1980s and 1990s and jointly edited *The Quality of Life*,⁷⁰⁶ which formed an important source for research and debate with the capability approach. This approach emphasises the capacity to function, viewing capabilities as opportunities based on personal and social circumstance.⁷⁰⁷

Sen's involvement gave the HDI more appeal. According to Sir Richard Jolly 'Amartya gave [the HDI] intellectual depth and credibility. Before that people thought it was just flaky, feelgood stuff.'⁷⁰⁸ That the three initiators were born in India, had pursued successful academic careers in the UK and America and were widely recognised in the Western intellectual world probably helped the HDI to be accepted and appealing as an academic index focusing on development.

5.2.2 Production of the first HDI in 1990

When launched the goal of the human development approach was put 'people back at the center of the development process in terms of economic debate, policy and advocacy.'⁷⁰⁹ While indicators were available for some aspects of development, they were not to be captured in a single number. To create a 'competitor' to GDP per capita growth as a development measure, a composite index was created. The aim was to create a global, simple representation of human development. Mahbub ul Haq, the director of the Human Development Report teams from 1990 to 1994 made this explicit. He noted that the HDI was a simple summary measure of human development: 'just one number, which is of the same level of vulgarity as the GNP – but a measure that is not blind to the social aspect of human lives as the GNP is.'⁷¹⁰

The concept behind the index has always been that development entails more than economic growth alone. The UNDP argues that income is not an end in itself,

⁷⁰⁴ *Human Development and Capability Association Website* (Accessed 22 June 2011).

⁷⁰⁵ *Human Development and Capability Association Website. About Us* (Accessed 17 September 2011).

⁷⁰⁶ Martha C. Nussbaum, Amartya Kumar Sen, and World Institute for Development Economics Research. *The Quality of Life* (Oxford; New York: Oxford University Press, 1993).

⁷⁰⁷ Ibid, Amartya Kumar Sen. *Commodities and Capabilities, Professor Dr. P. Hennisman Lectures in Economics* (Amsterdam: North-Holland, 1985).

⁷⁰⁸ 'The Guardian Profile: Amartya Sen. Food for Thought,' 31 March 2001.

⁷⁰⁹ *Human Development Reports Website. History of the Human Development Report* (Accessed 17 September 2011).

⁷¹⁰ United Nations Development Programme. *Human Development Report 1999*. (New York: Oxford University Press for the United Nations Development Programme, 1997). p. 23.

but an instrument to acquire human well-being.⁷¹¹ While access to income was considered one of the means to acquire human well-being, it is not the only one. Living a long life and knowledge are also important and as such have had to be taken into account in the HDI. Political freedom, personal security, community participation and guaranteed human rights have been recognised as important, too, but very difficult to quantify. As discussed below, this was attempted but not included in the HDI.⁷¹²

The UNDP viewed the national income figures as insufficient, because they did not reveal the composition of income or its actual beneficiaries. The UNDP disputed the assumption that income permits access to every other choice that people have or would like to have and therefore justifies taking income as a proxy for development. Four reasons were given why it is only partly a proxy. First, income is a means, not an end and the well-being of a society depends on the uses to which income is put, not on the level of income itself. Second, countries at modest income levels can still attain high levels of human development and relatively high-income countries can show poor human development. Third, the figure on income is a snapshot and thus current income does not necessarily indicate future growth prospects. Investments in people increase potential income, but are sometimes visible only later. Fourth, high income levels are in themselves no guarantee of human progress, since human problems in relation to long life, knowledge, political freedom, personal security, community participation and guaranteed human rights can still prevail also in rich industrial nations.⁷¹³ Therefore, the UNDP has claimed that there is a ‘demand’ for a better competing measure of development, for which they produced the HDI.

The production process from the ‘world’ to the index is illustrated by Figure 5-1. The HDI is about one of the features of the world, development. This feature is selected and defined as human development (step 1). While the UNDP acknowledges that there are more variables to human development, including political freedom and personal security,⁷¹⁴ it selected three aspects for the sake of measurement feasibility. As essential to human development, the HDI takes the following: to lead a long and healthy life; to acquire knowledge; and to have access to the resources needed for a

⁷¹¹ United Nations Development Programme. *Human Development Report 1990* (New York: Oxford University Press for the United Nations Development Programme, 1990). p. iii.

⁷¹² The UNDP has initiated other innovative measures as well aiming to measure these aspects (see Section 5.2.4).

⁷¹³ United Nations Development Programme. *Human Development Report 1990*. pp. 10-11.

⁷¹⁴ *Ibid.* p. 10.

decent standard of living (step 2). These qualitative aspects need to be formulated as measurable entities to allow quantification. Therefore, proxies have to be taken, which are not entirely representative (the black horizontal oval shape in Figure 5-1), but are changed proxies which cover only part of the original (the grey diagonal oval shape in Figure 5-1). Figure 5-1 emphasises that the proxies are crude approximations of what they represent, as can be seen by their different shapes (step 3). Life expectancy at birth is only a crude indicator for leading a long and healthy life, as is the adult literacy rate taken as a proxy for knowledge and the adjusted per capita real GDP in purchasing power parity terms is taken to represent the standard of living. The national data were collected on these proxies, which are the 'raw materials' of the index. These are supplied by national or international data agencies (step 4). For each country, the information on the three aspects then needs to be normalised into the same units, by determining a deprivation measure. This measure reflects the deprivation that a given country suffers in each of the three basic variables. This is measured by determining the maximum and minimum value for each of the three variables, given the actual values of the countries. Thus the normalisation depends on the position of the country in question in relation to the highest and lowest performing countries. The deprivation measure then places the country somewhere in the range between zero and one, as defined by the difference between the maximum and the minimum (step 5). Then, averaging the three deprivation indicators gives the deprivation ratio in a simple, unweighted average (step 6). The final equation, 1 minus this average deprivation rate (step 7), yields the final product: the average human development index for each country (step 8).⁷¹⁵

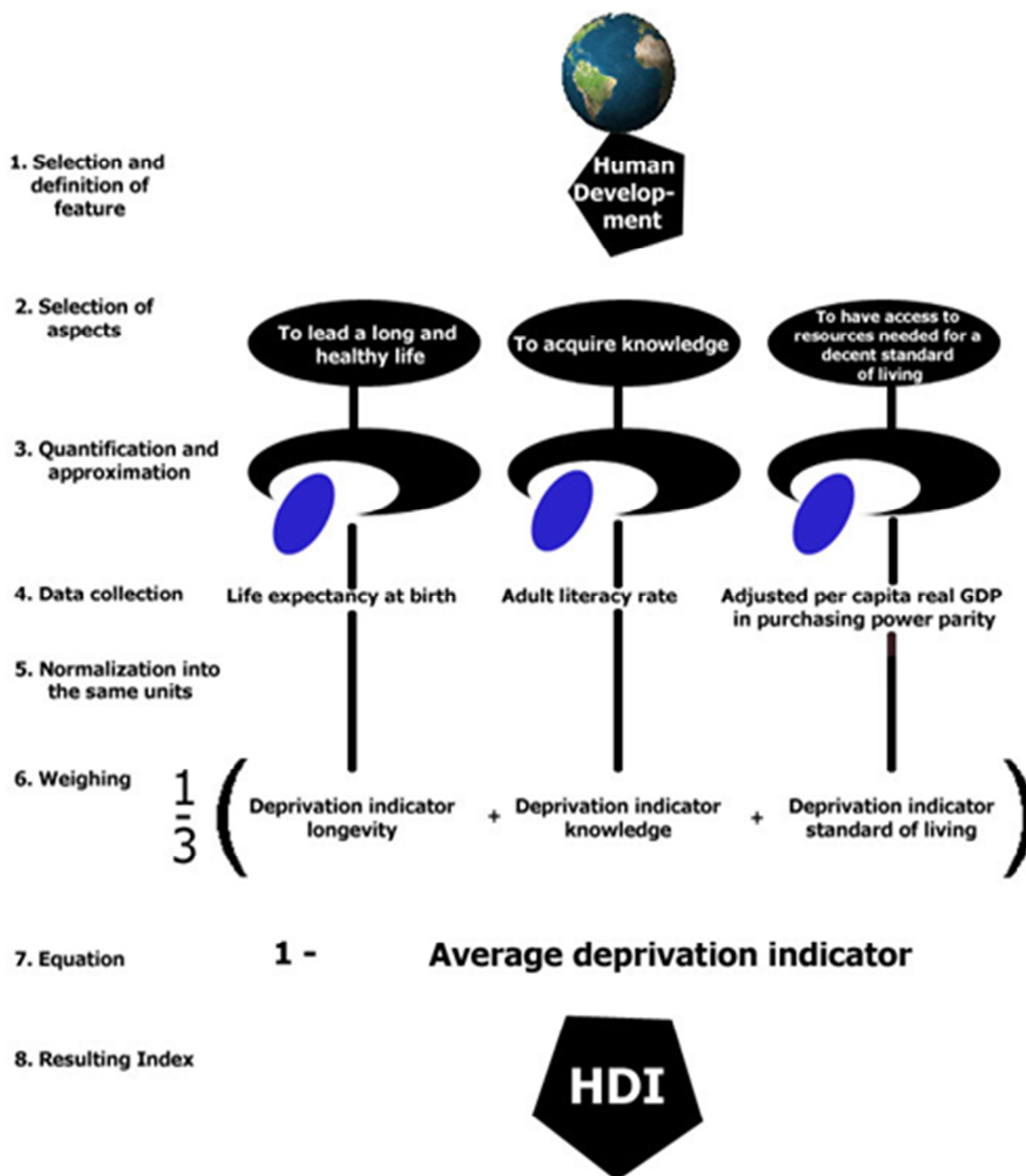
The production process thus described indicates how the index was designed in 1990. This is the main blueprint of the product, the product design, which was amended to include different proxies to better reflect health and knowledge. The product design directs the following process of the actual collection and assemblage of the raw material to yield the HDI numbers and, in addition, the ranking of the countries according to their performance regarding human development, as measured by the HDI.

The HDI is a global product which was developed to be one measure for all countries, in contrast to other measures which are country specific, such as national

⁷¹⁵ Over the years, the methodology of the Human Development Index has changed, but for purposes of this chapter the first HDI produced in 1990 is discussed and made visual in Figure 5-1.

poverty lines. Moreover, the index puts together different elements of different sorts in a composite index, which then allows for the comparison of all countries in one index. This global perspective has to take into account the limitations of data collection in different countries, which compromises the accuracy and quality of the data supply. That is, in more developed countries more sophisticated measures and data are available, but the global perspective directs that the HDI uses whatever elements are available in developing countries as well. This is where the global aim for the HDI plays a role: because the measure is aimed to be relevant for all countries; hence, a compromised product design is chosen, to allow the product to be global. Thus while in theoretical terms there are better indicators available, the practical constraints of data collection imply that the product is of 'inferior' quality.

Figure 5-1 Construction of the first HDI in 1990⁷¹⁶



⁷¹⁶ I constructed this Figure based upon the information in the first HRD: United Nations Development Programme. *Human Development Report 1990*. In subsequent years the measure was changed and therefore Figure 5-1 only represents the HDI in 1990. However, the main steps undertaken during the product design and production process have remained similar over time and therefore the illustration of the process remains valid.

5.2.3 The production process

Within the production domain, the production of the first HDI did not occur in isolation; the process entailed data requests, different flows of data (the raw material), resources and personnel and interaction between the head office of the UN and UNDP and stakeholders and suppliers around the world. While the raw material was being gathered and the actual production taking place in New York, where the UNDP is located, various stakeholders on a more localised level of their national and local situations have come into play.

The UNDP has been the producer, initiator and main actor in the production domain. In the 1980s the emphasis within the UNDP shifted to people-focused human development and the UNDP formalised and elaborated the human development strategy in the 1990s, the key to which was the product design for the HDI. The success of the HDI and concept together has led to the current promotion of the human development approach within⁷¹⁷ and outside the UN. Since 1990 one of the activities advocating change has been the publication of the Human Development Report (HDR), which has the HDI as a prominent feature.⁷¹⁸ Within the UNDP there are several international production development teams which combine groups of people from various nationalities and backgrounds. The HDR team has been responsible for organising the data and content and for writing the HDR.

In addition to the product design, the HDI has required raw material in its production. As seen in Figure 5-1, the HDI relies on data on a national level which are supplied by national statistical agencies, or international statistical agencies such as the OECD or the UN. The data requirements have been met by interaction with the many varied suppliers of input. Should the national statistical agencies be unable to provide sufficient data of acceptable quality, the UNDP has also become involved in national data collection, when UNDP teams cooperate locally for the sake of the statistical operations. As with multinationals, the UNDP has set a standard for producing the elements which the headquarters uses in its production activities. If necessary, the producers have sometimes taken on part of the production while at

⁷¹⁷ Jolly, Emmerij, and Weiss. *UN ideas That Changed the World*. p. 51.

⁷¹⁸ While the first HDRs introduced and elaborated on the HDI and the human development concept, later Reports started having annual themes focusing on certain aspects of development, such as climate change. Until 2008 the Report and the HDI were a joined product, but 2008 saw the first separate publication of the statistics. *Human Development Reports Website. Media Centre: New UN Data Shows Progress in Human Development* (Accessed 17 September 2011).

other times the producers can rely on local suppliers and need not produce the inputs themselves.

The HDR team designed the product shown in Figure 5-1 and requested data from each country. The UN Statistical Office since its formation in 1946 has made efforts to standardise statistical methods, develop common statistical measures and coordinate data collection among countries and agencies.⁷¹⁹ Thus some of the data required by the HDI was already centrally available, such as all the data acquired within the International Comparison Program.⁷²⁰

For the data already produced, the UNDP has been able to use this raw material, while for other data more efforts have been necessary, to go down to the level of each country and help gather the data. To this end, the UNDP has interacted with local governments and national statistical agencies. When the raw materials have been made available, the data are assembled for the actual production, which takes place in New York, the location of the main office of the UN.

Thus, the UNDP has not operated in isolation. In addition to the suppliers, the UNDP team also has worked together with a panel of advisors appointed to aid the process. In this way the HDR team as producer has engaged with a variety of people, including the UNDP staff in the field. This joint production process has been facilitated by and been dependent upon the UNDP network⁷²¹ throughout the world and the international and national data agencies which have provided statistical data.

Figure 5-2 gives an impression of the international character of the production process. The international movements are depicted more simplistically than the actual complex and diverse flow of products and people, but the illustration is meant to show the globalisation of the production process. The place of origin has been within the multinational organisation, the UN. Within the UN, the UNDP has been the sub organisation within which the HDR team has produced the HDI. The product design stage has taken place in New York, where the concepts, as well as the HDI formats, the HDI outcomes, ranking list and HDR have been produced. The

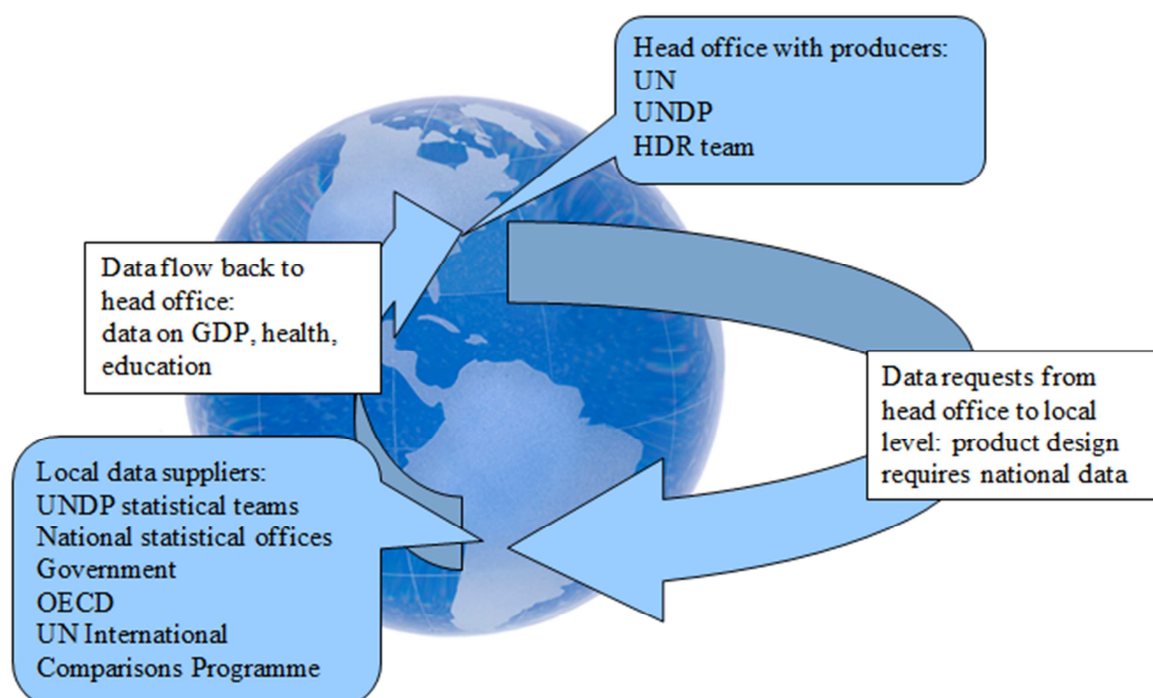
⁷¹⁹ Jolly, Emmerij, and Weiss. *UN ideas That Changed the World*. p. 122.

⁷²⁰ Since 1968 this programme has been making efforts to produce internationally comparable price and volume measures for GDP. This joint venture of the United National Statistical Division and the University of Pennsylvania has recently given over the coordination to the World Bank for the 2011 Round. *World Bank Website. International Comparison Program. History* (Accessed 17 September 2011). This is part of the competition between the World Bank as they have signalled improvements since they took over the program.

⁷²¹ See Section 5.2.3.

production design⁷²² has required raw materials and the request for data goes to the local level. Where necessary the UNDP has been actively involved in improving national data collection and the provision of data. The input requirements go to the suppliers of the ‘raw material,’ the international and national data agencies. For clarity, Figure 5-2 takes the country level as visualised in South America, but in reality the formats requesting data go to each country’s government. This involves the national statistical agencies and, where applicable, the UNDP statistical teams.

Figure 5-2 The production process of the HDI



The calculations with the data can be seen as the actual production of the HDI. Once the data requests have been met, that is, once the data on standards of living, health and education have been produced, the data flow back to the main office where the HDI is produced. The HDR team then combines the national data and assembles the product: HDI outcomes for each country. To give an example, the 2010 HDI for USA was 0.902 (See Figure 5-3 below) and for Mozambique 0.284 (see Figure 5-4 below). Based on these outcomes, a second product, the ranking, is

⁷²² As seen in Figure 5-1.

produced; this compares the countries based on their human development; for example, in 2005 out of 177 countries El Salvador was ranked at 103 and the United Kingdom at 16. As illustration, parts of the HDI outcomes and ranking list of the 2010 HDR are reproduced in Figures 5-3, 5-4 and 5-5 below. The third product is the HDR which reports not only the statistics, but also the underlying reasoning and concepts.

The HDI has yielded more products since it was immediately used and acted upon. In addition to the global reports, over time the UNDP has produced additional related products, including the National Human Development Reports (NHDRs) and their formats and indicators (see Section 5.2.4). These Reports have required more specific data which form another international flow of NHDR format and reports. The producers have been not only the UNDP personnel but also country teams and advisors and information has flowed between the head office in New York and the local level in the particular countries, where specific interests are met with themed reports. The local level, where the inputs are provided and the outcomes are consumed, is emphasised. Part of the production is outsourced while the head office remains in charge and sets the requirements. Over time the UNDP has been active in allowing and improving product development.

Figure 5-3 Most developed countries in the HDI ranking 2010⁷²³

HDI rank	Human Development Index (HDI) value ^a	Life expectancy at birth (years)	Mean years of schooling (years)	Expected years of schooling (years)	Gross national income (GNI) per capita (PPP 2008 \$)	GNI per capita rank minus HDI rank	Nonincome HDI value	
	2010	2010	2010	2010 ^b	2010	2010	2010	
VERY HIGH HUMAN DEVELOPMENT								
1	Norway	0.938	81.0	12.6	17.3	58,810	2	0.954
2	Australia	0.937	81.9	12.0	20.5	38,692	11	0.989
3	New Zealand	0.907	80.6	12.5	19.7	25,438	30	0.979
4	United States	0.902	79.6	12.4	15.7	47,094	5	0.917
5	Ireland	0.895	80.3	11.6	17.9	33,078	20	0.936
6	Liechtenstein	0.891	79.6 ^c	10.3 ^d	14.8	81,011 ^{e,f}	-5	0.861
7	Netherlands	0.890	80.3	11.2	16.7	40,658	4	0.911
8	Canada	0.888	81.0	11.5	16.0	38,668	6	0.913
9	Sweden	0.885	81.3	11.6	15.6	36,936	8	0.911
10	Germany	0.885	80.2	12.2	15.6	35,308	9	0.915

Figure 5-4 Least developed countries in the HDI ranking 2010⁷²⁴

163	Chad	0.295	49.2	1.5 ^{b,g}	6.0	1,067	-9	0.298
164	Guinea-Bissau	0.289	48.6	2.3 ^{b,h}	9.1	538	1	0.362
165	Mozambique	0.284	48.4	1.2	8.2	854	-5	0.300
166	Burundi	0.282	51.4	2.7	9.6	402	0	0.400
167	Niger	0.261	52.5	1.4	4.3	675	-3	0.285
168	Congo, Democratic Republic of the	0.239	48.0	3.8	7.8	291	0	0.390
169	Zimbabwe	0.140	47.0	7.2	9.2	176	0	0.472

Figure 5-5 Comparison averages in the 2010 HDI table⁷²⁵

Developed								
	OECD	0.879	80.3	11.4	15.9	37,077	—	0.904
	Non-OECD	0.844	80.0	10.0	13.9	42,370	—	0.845
Developing								
	Arab States	0.588	69.1	5.7	10.8	7,861	—	0.610
	East Asia and the Pacific	0.643	72.6	7.2	11.5	6,403	—	0.692
	Europe and Central Asia	0.702	69.5	9.2	13.6	11,462	—	0.740
	Latin America and the Caribbean	0.704	74.0	7.9	13.7	10,642	—	0.746
	South Asia	0.516	65.1	4.6	10.0	3,417	—	0.551
	Sub-Saharan Africa	0.389	52.7	4.5	9.0	2,050	—	0.436
	Very high human development	0.878	80.3	11.3	15.9	37,225	—	0.902
	High human development	0.717	72.6	8.3	13.8	12,286	—	0.749
	Medium human development	0.592	69.3	6.3	11.0	5,134	—	0.634
	Low human development	0.393	56.0	4.1	8.2	1,490	—	0.445
	Least developed countries	0.386	57.7	3.7	8.0	1,393	—	0.441
	World	0.624	69.3	7.4	12.3	10,631	—	0.663

⁷²³ United Nations Development Programme. *Human Development Report 2010 - 20th Anniversary Edition. The Real Wealth of Nations: Pathways to Human Development* (New York Oxford: Oxford University Press for the United Nations Development Programme, 2010). p. 143.

⁷²⁴ Ibid. p. 146.

⁷²⁵ Ibid. p. 146.

5.2.4 Product development

Since the initial production in 1990, the UNDP has been active in product development in three ways: quality improvement, expanding complementary products and additional product lines. Since its origin, the HDI has been developed to allow for improvements and as a result the UNDP is seen to be actively working on quality improvement. The complementary products include the ranking list, Reports, Website, Network, Journal and Course. Additional product lines include the HDI, Gender Development Index (GDI) and the Gender Empowerment Measure GEM, Human Poverty Indices (HPI-1 for developing countries; HPI-2 for ‘a group of select high-income OECD countries’).⁷²⁶ In 1991 the UNDP developed the Human Freedom Index and in 1992 the Political Freedom Index, although these proved unsuccessful. The UNDP has continued to develop its products and the 2010 Human Development Report looks back on the twenty years since its first Report and introduces new tools.

In this Report we introduce three measures to the Report family of indices – the Inequality-adjusted Human Development Index, the Gender Inequality Index and the Multidimensional Poverty Index. These state-of-the-art measures incorporate recent advances in theory and measurement and support the centrality of inequality and poverty in the human development framework. We introduce these experimental series with the intention of stimulating reasoned public debate beyond the traditional focus on aggregates.⁷²⁷

This quotation demonstrates the engagement of the UNDP with its users and its ability to continue to develop and improve its measures, not merely to represent but also to stimulate debate, while also keeping an eye on policy implications.

5.2.4.1 Quality improvement

The UNDP has improved the quality of its measure, the HDI. The first Report introduced the HDI while acknowledging its weaknesses and inviting responses from the user groups. The responses from the academic community were critical and the UNDP actively engaged with the critiques.⁷²⁸ They can be compared to customer complaints or after-sales service leading into improvements in the product. The

⁷²⁶United Nations Development Programme Website: *The Human Poverty Index*.

⁷²⁷ Summary HDR 2010: *Human Development Reports Website. Summary HDR 2010* (Accessed 17 September 2011).

⁷²⁸ See Section 5.5.2.

website on statistics even asks directly for feedback and suggestions and gives a link to a feedback form, stating:

‘We want your input and feedback on the Human Development Report and the Human Development Index, and we want to share it with our readers. We will host a moderated forum for questions about our data sources, our methodologies and our analysis. We hope to hear from you.’⁷²⁹

Since the first HDI in 1990, the aspects of longevity, knowledge and standard of living (line 2 in Figure 5-1) have remained the same, but their quantification and approximation have changed. In response to some of the critiques of the 1990 version, the product design of the HDI has been amended.⁷³⁰ For example, the knowledge aspect was first measured as the adult literacy rate but has since become more sophisticated, taking the literacy rate in combination with primary, secondary and tertiary enrolment rates. In addition, the quality of the data has been criticised and UNDP has made an effort to improve its data collection (line 4 in Figure 5-1) in combination with local statistical agencies. In addition to the improvement of the raw material, more material has been produced. Over the years, more data have become available, allowing more countries to be included in the Reports. In the 1990 HDR, 130 countries were included,⁷³¹ while the HDR 2009 reported on 182 countries.

Although the weighting (line 6 in Figure 5-1) has been criticised,⁷³² it has remained the same mostly for lack of a better alternative. Another change has been the order of the ranking list. In 1990 the top of the lists had Niger with an HDI of 0.116, Bali with 0.143 and Burkina Faso with 0.150. At the bottom of the list there was Switzerland at number 128 with an HDI of 0.986, Sweden at number 129 with 0.987 and Japan at number 130 with 0.996.⁷³³ However, when the index calculation changed, the ranking procedure indicated the most developed countries at the top, so that the HDR in 2009 gave the top three places to Norway in first position, Australia

⁷²⁹ *Human Development Reports Website. Questions, Comments & Critiques* (Accessed 17 September 2011).

⁷³⁰ HDI changed in 1992, 1994 and 1997 and in 2008. The achievements of the human development approach are reflected on in the 2010 HDR. United Nations Development Programme. *Human Development Report 2010 - 20th Anniversary Edition. The Real Wealth of Nations: Pathways to Human Development*.

⁷³¹ United Nations Development Programme. *Human Development Report 1990*. pp 128-9.

⁷³² See Section 5.5.2.

⁷³³ United Nations Development Programme. *Human Development Report 1990*. pp. 128-9.

second and Iceland third.⁷³⁴ ⁷³⁵ This made the list of countries seem more like a ranking list with the aim being to reach the top, in the way that it has subsequently been used by all participants.⁷³⁶

5.2.4.2 Complementary products

From its beginning in 1990, the UNDP has produced a range of complementary products and subsequently added different product lines and services for promoting human development. In 1990, in addition to the index itself, the ranking list and Report on Human Development were produced, which can be seen as complementary products as well as different ways to propagate the human development approach. Later additional products have included the National Development Reports, regional Development Reports, the HDR website, the UNDP network and support for local human development teams, the *Journal of Human Development*.

The HDI has been a successful product in attracting attention and combining different features of development in one index. Nevertheless, by itself the resulting index of a country is informative in only a limited way. For example, in 1990 Sweden yielded an HDI of 0.987⁷³⁷ which implied that Sweden was very close to 1 (fully developed), but the precision of the number presented with its three decimals did not actually give more information on what was actually entailed. In practice, the numbers only become valuable in a comparative context, either a comparison across countries at a moment in time or, since the method remains the same, via data on a single country across time. For example, knowing that in 1990 Norway had an HDI of 0.983 and Finland had an HDI of 0.967 gives some perspective on the importance of the Swedish value of 0.987.⁷³⁸ Or, as the HDR 2000 calculated, the HDI allows for comparison over time to identify the fastest and the slowest HDI progress in a given period. For example, from the group starting from medium human development (0.500–0.799), Tunisia made the fastest progress with its HDI moving from 0.511 to

⁷³⁴ United Nations Development Programme. *Human Development Report 2009. Overcoming Barriers: Human Mobility and Development* (New York Oxford: Oxford University Press for the United Nations Development Programme, 2009). pp. 143-6.

⁷³⁵ Section 5.5.2 elaborates on the critiques and on the UNDP has responded altering the HDI.

⁷³⁶ See Section 5.4.

⁷³⁷ United Nations Development Programme. *Human Development Report 1990*. pp. 128-9.

⁷³⁸ *Ibid.* p. 129.

0.703, thus an absolute difference between 1975 and 1998 of 0.192; Zimbabwe made the slowest, from 0.519 to 0.555, thus only absolute progress of 0.036.⁷³⁹

The individual HDI outcomes per country have been published in a list which ranks countries according to their performance and the ranking list can be seen as a complementary product to the HDI which facilitates this comparison. This ranking list has proved to be an effective distribution channel and an appealing product in itself, for ranking lists usually hint at competition and allow citizens to compare their country to neighbouring or other countries.⁷⁴⁰ In addition, ranking lists have worked well in journalism and other media and the UNDP has promoted the products actively with press kits and releases, as well as organising Report launches. These marketing activities made it easier for the media to take up the Report and messages for further distribution.

Furthermore, the rankings have created a competitive element in neighbouring or otherwise interacting countries and encouraged them to engage with the outcomes.⁷⁴¹ In this context it is not the HDI value itself, to three decimal places, that is important but the ranking – countries engage with each other on the basis of their ranking (whether they are 68th or 43rd in the HDI league table). And even when making comparisons over time, the tendency is for countries not to use the HDI value but rather to focus on whether their ranking has changed – have they moved up or down the HDI league table over time? Indeed, this comparative element based on ranking has become important in the way that users engage with what the measure can produce.

Of the three main complementary products, the Human Development Report⁷⁴² has been in some ways the most important and has certainly been more conventional. This is where the human development concepts are discussed in greater depth and where the HDI and the ranking list are published. Thus it serves as the main distribution mechanism for the HDI and the rankings, as well as for the other themes related to human development which are discussed in words rather than being represented in indices or league tables. The initial publication of the Report

⁷³⁹ United Nations Development Programme. *Human Development Report 2000. Human Rights and Human Development* (New York Oxford: Oxford University Press for the United Nations Development Programme, 2000). p. 150.

⁷⁴⁰ See Section 5.4.2.1.

⁷⁴¹ See Section 5.4.2.1.

⁷⁴² All Reports have been available online. *Human Development Reports Website. Reports* (Accessed 17 September 2011).

further facilitates marketing and advertising, both of the HDI and of the written information on human development themes that the Report has focussed on. Indeed the annual publication of the HDR has become a major event – the international press is invited and the event is further enhanced by politicians and other officials who give speeches at Report launches.

Sir Richard Jolly, the co-director of the UN Intellectual History Project, has pointed out that human development in this context means nothing more than investing more in education and health,⁷⁴³ which had been a quite intuitive but established notion within the development field. The emphasis on improving the lives of individual people rather than economic growth has been one of the main messages successfully promoted by the HDI.⁷⁴⁴ The argument here is that the success of the HDI in achieving this can in turn be explained by the UNDP's combining it with the complementary products. The numbers alone could not get the full message across, which is why the HDR and other complementary products were important. In turn, the HDR by itself lacks the advocacy power and quantitative appeal of the index as a competitor to GDP per capita.

The different complementary products have helped to deliver some of the stated aims of the UNDP, namely, to promote discussion about the development of the measurement⁷⁴⁵ and to maximise the distribution of the measure. This has been successful, in that from the outset academic users embraced and engaged critically with the HDI. Hence, they immediately adopted the HDI, while the UNDP engaged with the many responses gathered quickly by the HDI in the academic domain.⁷⁴⁶ This was important because it meant that the market was engaging with the new products and even when this engagement was in the form of critical comments it ensured publicity for the products and hence helped their promotion.

⁷⁴³ Opening presentation by Richard Jolly on 28 January 2010 in Cambridge UK. Workshop organised by the Von Hügel Institute/Capability and Sustainability Network, University of Cambridge, in collaboration with the United Nations Development Programme (UNDP) / Human Development Report Office (HDRO). 28-29 January 2010. Cambridge, UK.

⁷⁴⁴ The following quotation illustrates the establishment of the HDI: 'That human development need not be definite outcome of economic growth is a cliché now. Credit goes to the UNDP for this. Through its HDRs advances in economic theory on human well-being and its measurement are now translated into "taken for granted" goals for policy makers.' Padmini Vijayabaskar M, Swaminathan, Anandhi S, Gayatri Balagopal 'Human Development in Tamil Nadu. Examining Linkages,' *Economic and Political Weekly* (2004). p. 797.

⁷⁴⁵ United Nations Development Programme. *Human Development Report 1990*. p. 11.

⁷⁴⁶ For example Sudhir Anand and Amartya Sen. 'Human Development Index: Methodology and Measurement,' *Human Development Report Office Occasional Paper* (1994), *ibid*.

Due to the initial success of the annual global edition, the Report publications have been expanded to regional and national publications as well. By 2011 more than 700 Reports have been produced in 140 countries on national and regional issues.⁷⁴⁷

These issues often have a specific theme, such as gender, political reform, or climate change. While the global Reports have remained the main eye-catchers with the ranking lists and annual themes⁷⁴⁸ the UDNP has since produced an expanding range of regional, national and local reports. Examples include 'Challenges to Human Security in the Arab Countries' in 2009,⁷⁴⁹ the 1993 NHDR for Botswana entitled 'Planning for People,'⁷⁵⁰ the 2003 NHRD for Honduras 'Culture & Human Development'⁷⁵¹ and the local Tamil Nadu Human Development Report in 2003.⁷⁵² These products were developed in close collaboration with the local communities and take into account the circumstances and themes which are relevant for the country or region in question. Thus they show how the rather abstract global HDI has gradually filtered down to provide what its originators and the UNDP wanted – specific policy suggestions to improve the well-being of individuals and hence the human development of the region or country.

Moreover, the HDR website forms an additional distribution channel. The website allows the user to obtain the HDI products and provides interactive services which give the user additional information as well as making comparisons over time and over regions. All the publications can be downloaded, as well as interactive maps and background information on the Reports and concepts. It also provides platforms where researchers, officials and other interested parties can gather and share information. In addition, it provides toolkits for the national teams preparing their own report or constructing indices. The UNDP further promotes institution-building by supporting statistical practices, local advice and assistance through their teams. At Oxford University a recurrent training course is organised on 'Human development

⁷⁴⁷ *Human Development Reports Website. Reports.*

⁷⁴⁸ See Figure 5-7.

⁷⁴⁹ United Nations Development Programme. *Arab Human Development Report 2009. Challenges to Human Security in the Arab Countries* (Republic of Lebanon: United Nations Development Programme, Regional Bureau for Arab States (RBAS), 2009).

⁷⁵⁰ United Nations Development Programme. 'Planning for People,' (1993).

⁷⁵¹ United Nations Development Programme. 'National Human Development Report 2003 Honduras. Culture & Human Development,' Accessed 19 September 2011.

⁷⁵² See Section 5.4.2.2 and Vijayabaskar M. 'Human Development in Tamil Nadu. Examining Linkages.'

from theory to practice'⁷⁵³ where politicians, academics and other professionals are taught and can use the HDI concepts.

For academic purposes, the *Journal of Human Development* was launched in 2000 to expand the concepts and measurement tools regarding human development.⁷⁵⁴ This journal is connected to the 'Human Development and Capability Association' launched in 2004 and has approximately a thousand members.⁷⁵⁵ This association promotes interdisciplinary research from many disciplines on key problems, including poverty, justice, economic well-being and economics. As noted above, the first two presidents of the Association were Amartya Sen and Martha Nussbaum which further justified and promoted the HDI as an academic index.

Embedded within the UN, the UNDP has been able to expand its presence within and use of the UN network and framework, even though it is not a straightforward process to promote the human development approach through the different parts of such a large and complex organisational structure as the UN. Beyond its own organisation, the UNDP has used a website and the existing connections with the UN on the ground to construct a platform where different communities can meet. This involves users such as academics, advisors, the media and politicians. The network can thus be seen as an additional complementary product.

The network and website applications further bring out the global features of the human development products. The different HDI-related products are distributed to the local level where they are dispersed through academia and through use in the media and in the public domain. These user groups are interlinked, although they may not be specific in their geographical location. That is, the website, academia and networks are not bound to one geographical location, although they are clearly connected. The NHDRs require local inputs and measuring efforts which go beyond the information already available for the global HDI; hence the preparation for the NHDRs provides another interaction. The requirements to fulfil the UNDP standards

⁷⁵³ *Human Development Reports Website. Training in Human Development* (Accessed 17 September 2011).

⁷⁵⁴ Since 2008 it has been renamed as *Journal of Human Development and Capabilities* and published by Taylor and Francis. *Taylor and Francis Online. Journal of Human Development and Capabilities* (Accessed 17 September 2011).

⁷⁵⁵ Jolly, Emmerij, and Weiss. *UN ideas That Changed the World*. p. 188.

thus provide a further distribution of the HDI products when both the report teams and the local community engage with the human development concepts.

Within this process, the academic community also becomes part of the production, in advisory committees and production teams. The academic character of the HDI is actually an important feature of it. It was important to have the involvement and approval of Amartya Sen, because of his reputation as a prominent academic and his originating from a developing country. Moreover, statistics in general are connected to the academic character of the product: capturing a phenomenon of the world in a number not only produces a new product but is also an academic endeavour in itself, by analysing and making statements about the world – creating facts. This is an important difference from other products, whose inherent features are not aimed at academic progress.

This academic feature is further enhanced by the involvement of different academics, as well the organisation of the Human Development Course at Oxford University. Moreover, although questionably as its main authors, the UNDP has claimed that the Reports are written independently and has used the highly regarded Oxford University Press to publish them. The academic connection contributes to the fact-like character of the HDI, which can be compared to the health claims on behalf of consumption goods.

5.2.4.3 Additional product lines

After the initial success of the HDI, the UNDP has brought several other measures to the market, which can be seen as additional product lines. The UNDP has been active in creating innovative measures for development-related themes using composite indices, in addition to providing singular indicators on development issues which are included in each report. The Gender Development Index (GDI) and the Gender Empowerment Measure (GEM) were introduced in 1995. The first is an HDI adjusting for gender inequality, while the latter aims to capture gender inequality in three areas: female political participation and decision-making, economic participation and decision-making power and the power exerted by women over economic resources. The 1997 Report introduced two Human Poverty Indices. Poverty was viewed as the deprivation of choices and opportunities for living a life which one has reason to value. To take only the lack of income was considered too narrow a way to represent this notion and therefore the two measures differentiate

between developing countries (Human Poverty Index-1) and a group of select high-income OECD countries (Human Poverty Index-2).⁷⁵⁶

The UNDP also introduced measures which were not successful, recalling commercial products being launched but withdrawn after disappointing sales. As political and civil freedoms were viewed as essential to human development, the 1991 HDR introduced the Human Freedom Index. After a critical review and debate, the next Report in 1992 saw the publication of the Political Freedom Index. However, both these indices were discontinued. Whilst these products were not sold like conventional products, they were withdrawn much as a conventional product would have been withdrawn because of a critical reception by the market place – there were no sales but only critical reviews from the users. The 2000 Report lists three reasons for the discontinuation, arguing that, first, the indices used qualitative judgements rather than quantifiable empirical data; second, the use by the analysis of summary answers which did not justify the interpretations; and, third, the lack of possible policy advocacy because the freedom indices could not reveal the individual components nor the reasons for the resulting index.⁷⁵⁷

In sum, when considering the production domain of the HDI, it has become clear that there is not simply one product and one producer. As with conventional products, there have been raw materials, suppliers, stakeholders and a production process which cannot be seen in isolation. However, analysis has shown that the HDI has been a different product from Booth's poverty line and the US poverty thresholds. The UNDP as the institutional producer provided an environment in which the production of the HDI took place. As the HDI had a larger agenda, it was not one product only and it was not only income that was taken into account, as in conventional poverty measures. The aim was to capture human development in a number. Moreover, the number was not offered in isolation; it was developed in a package of different products, which reinforced their mutual success. Further, open to debate with its users, the UNDP actively allowed for the coproduction of the various products in the package. Put forward to offer a new approach to

⁷⁵⁶ The measurement is clarified in among others United Nations Development Programme. *Human Development Report 2007/8. Fighting Climate Change: Human Solidarity in a Divided World* (New York Oxford: Oxford University Press for the United Nations Development Programme, 2008). pp. 355-361.

⁷⁵⁷ United Nations Development Programme. *Human Development Report 2000. Human Rights and Human Development*. p. 91.

development, it can be seen to have competed with other producers already in the market, of which the World Bank was the most important.

5.3 The World Bank as a competitor in the production domain

In the market for poverty and development data, the HDI has competed with the World Bank's dollar-a-day measure, even though the two technically measure different things. They both find their origin within large international organisations focusing on reducing poverty and fostering development. As discussed in Section 5.2, the UNDP aims to help people build a better life and measures Human Development using the HDI to combine data on income, education and health. In contrast, the World Bank, 'working for a world free of poverty,'⁷⁵⁸ measures extreme poverty using one dollar per day per person as a poverty measure. Both measures are international and used to quantify and compare the development and poverty of different countries. They both use a global perspective, applying one measure to different countries around the world. These measures are extensively used in academia as well as in the media and for advocacy purposes by politicians, activists, charities and non-governmental organisations. Both have been developed and used since 1990 along similar main distribution channels in the form of their annual reports – in the case of the dollar-a-day the main vehicle of distribution is the *World Development Report (WDR)*.⁷⁵⁹

5.3.1 Production of the dollar-a-day

The WDR of 1990, entitled 'Poverty,' inspired the research which quantified the poverty line now known as the dollar-a-day. The aim was find a methodology for counting the poor and measuring the severity of absolute poverty, as well as using a fixed measure of poverty in order to reduce it.⁷⁶⁰ The scope was international, taking a global approach to compare poverty internationally with a focus on the developing world.

According to Yusuf, 'one of the enduring legacies of the WDR was the US\$1-a-day metric for measuring poverty.'⁷⁶¹ While the Report uses the quantified absolute poverty measure, it did not introduce and explain the measure in depth; nor

⁷⁵⁸ World Bank Website.

⁷⁵⁹ World Bank. *World Development Report* (New York: Oxford University Press, 1978).

⁷⁶⁰ Shahid Yusuf. *Development Economics through the Decades: A Critical Look at 30 Years of the World Development Report* (Washington, D.C.: World Bank, 2009).p. 345.

⁷⁶¹ Ibid. p. 32.

did it coin the phrase ‘the dollar-a-day measure.’ Instead, the measures used are justified in an academic peer-reviewed journal. Martin Ravallion, Gaurav Datt and Dominique van de Walle published the article ‘Quantifying absolute poverty in the developing world’ in the *Review of Income and Wealth*.⁷⁶² The footnote on the title refers to the research to prepare the World Bank’s WDR, but ‘the content is not to be attributed to the World Bank or any affiliated organization.’ Nevertheless, the article and the work of the World Bank are closely interlinked. The WDR was published in June 1990 and refers to the background research as the published article cited above, from December 1991. Tracing the history of the dollar-a-day, Ravallion states that the article was the background paper produced for the 1990 WDR.⁷⁶³ Thus, recalling the relations between the HDR and the HDI, the Report is both the place where the measure was first used and the one from which it was distributed. However, it was not as expressively promoted as the HDI. Furthermore, neither the WDR nor the article coined the name of the measures used as the ‘one-dollar-a-day’ but after publication it quickly became known as such.

All the authors of the article are economists and were working at the World Bank when the article was published. Martin Ravallion⁷⁶⁴ had a career in both academia and the World Bank and has published extensively on poverty and policy; Gaurav Datt published many articles on poverty in India; and Dominique van de Walle, after earning her MSc and PhD degrees in economics at London School of Economics and Australian National University respectively, started her career at the World Bank by researching for this article. Like the HDI producers, all had economics degrees, but the contrast is that for the HDI, Ul Haq had vast experience of policy on the ground and all the authors originated from India.

⁷⁶² Martin Ravallion, Gaurav Datt, and Dominique van de Walle. ‘Quantifying Absolute Poverty in the Developing World,’ *Review of Income and Wealth* Series 37, no. 4 (1991).

⁷⁶³ Martin Ravallion. ‘A Reply to Reddy and Pogge,’ in *Debates on the Measurement of Global Poverty*, ed. Sudhir Anand, Paul Segal, and Joseph E. Stiglitz (Oxford: University of Oxford, 2010), pp. 86-101. p. 87.

⁷⁶⁴ Ravallion worked as an academic at Oxford and Australian National University, as well as occasional policy advisor, before joining the World Bank in 1988. *World Bank Website. Data and Research. Director Martin Ravallion* (Accessed 16 September 2011).

The paper proposed a methodology for counting the poor and measured the severity of absolute poverty.⁷⁶⁵ The authors offered two interpretations of an absolute poverty line. The first suggests taking the cost of a bundle of goods which by international standards constitutes an absolute minimum, for example, in India, which would then have to be compared to other countries. The second was to assess a 'typical' poverty line' amongst the poorest countries, which would include an 'absolute' component which was constant across all countries and a 'relative component,' which was specific to each country. The base was taken as the lowest real poverty line and the relative component was determined by mean private consumption.⁷⁶⁶

Using the second approach, they compiled local poverty lines for 33 countries, using as sources local governments, the World Bank and independent researchers. They converted the local poverty lines to a common currency using purchasing power parity (PPP). The poverty lines were then compared with mean private consumption per capita⁷⁶⁷ which in turn yielded two poverty lines. The first poverty line used the lowest mean consumption amongst 86 countries studied in the WDR (Somalia, \$23 per person per month in 1985 PPP prices) to determine the lower bound poverty line, 'extreme absolute poverty.'⁷⁶⁸ The second used a more representative absolute poverty line of \$31, which was shared by six countries – Indonesia, Bangladesh, Nepal, Kenya, Tanzania and Morocco. Whilst the article did not yet make this connection it can be seen that \$31 per month is more or less a dollar a day.

The authors used both these measures for a headcount index, 'the proportion of the population with consumption below the poverty line,' and the poverty gap, 'the average consumption distance of the poor from the poverty line, expressed as a proportion of the poverty line.'⁷⁶⁹

⁷⁶⁵ Ravallion, Datt, and Walle. 'Quantifying Absolute Poverty in the Developing World.' p. 345 In addition, a working paper elaborated on the details and background of the quantification: Martin Ravallion et al. 'Quantifying the Magnitude and Severity of Absolute Poverty in the Developing World in the Mid-1980s. Background Paper for the 1990 World Development Report,' *World Bank. Policy Research and External affairs Working Paper 587* (1991).

⁷⁶⁶ Ravallion, Datt, and Walle. 'Quantifying Absolute Poverty in the Developing World.' p. 346-7.

⁷⁶⁷ Ibid. pp 346-349.

⁷⁶⁸ Ibid. p. 349.

⁷⁶⁹ Ibid. p 350.

The article used the poverty lines in addition to Lorenz curves for particular countries, or an extrapolation when this was not available⁷⁷⁰ to provide estimates of aggregate poverty. The ‘rough estimates’ suggested that one in three persons (1,137 million people) in the developing countries lived in absolute poverty, while one in five (645 million) lived in extreme absolute poverty.⁷⁷¹ They further use the lines for economic assessments, to investigate which elasticities to change, comparisons over regions, redistribution effects and projections on GDP growth developments. Consistent with the World Bank’s emphasis on growth, the paper argued that economic growth was the main way to reduce poverty,⁷⁷² although the authors noted that the poor would need to share at least proportionally in this growth.⁷⁷³

The article is clearly written and makes explicit the limits of and reservations about the method, data and implications. In the article, the measure is not given the name of the ‘dollar-a-day’ measure. Ravallion later explained that ‘The 1990 WDR \$1/day line had been picked by eye-balling the scatter of points in the relationship between national poverty lines and national mean consumption. For the revision we used instead the median of the lowest 10 poverty lines amongst the 33 countries, which gave the figure of \$1.08 at 1993 PPP.’⁷⁷⁴ Thus, while the actual poverty lines used are not exactly one dollar a day, this is the way that the measure became known.

5.3.2 The World Development Reports compared to the Human Development Reports

The WDR proposed the dollar-a-day as an international poverty measure in 1990 and the HDR resembles the WDR both in publication type and layout (the latter first appeared in 1978, twelve years before the first HDR). Both Reports have appeared annually, often with a special theme.⁷⁷⁵ Both reports are published by the Oxford University Press; the names of the Reports are alike, as are their physical appearance and the layout of their content. In addition, both Reports provide statistics, such as the HDI and the World Development Indicators. A difference is that it was an article

⁷⁷⁰ Ibid. pp 350-4.

⁷⁷¹ Ibid. p 354.

⁷⁷² Ibid. pp. 357-9.

⁷⁷³ Ibid. p. 345.

⁷⁷⁴ Ravallion, Martin. ‘How Not to Count the Poor? A Reply to Reddy and Pogge’ *Online Edition* (Accessed 17 September 2011). p. 4. For the book edition this quotation was amended to ‘The 1990 WDR \$1 a day line had been picked by eyeballing the scatter of points in the relationship between national poverty lines and national mean consumption. Since then we have taken an average of the lines for the poorest countries and provided tests of sensitivity to alternative methods of forming that average.’ Ravallion. ‘A Reply to Reddy and Pogge.’ p. 89.

⁷⁷⁵ See Figure 5-7.

in an academic journal that first published the measure that became known as the dollar-a-day. The production and distribution of the dollar-a-day as a measure are discussed below as a contrast to the HDI measure and will demonstrate the competition between the producers and the two products.

On 16 August 1978 the World Bank first published the WDR and it has since appeared annually, with the expectation of ‘providing a comprehensive assessment of the global development issues.’⁷⁷⁶ The first Report was titled ‘Prospects for Growth and Alleviation of Poverty.’ As later describes by Yusuf, the first Reports used broad brushes to discuss poverty while the later Reports become longer and more explicit in depth.⁷⁷⁷ The importance placed on the Reports by the World Bank itself can be seen by its claim that ‘The WDRs emerge as an annual flagship publication of the World Bank.’⁷⁷⁸

Although the dollar-a-day measure did not formally appear in the WDR until 1990, the World Bank’s concern with discussing poverty can be traced back to the early 1970s. Robert McNamara was the President of the World Bank when the first WDR was published. He had been Secretary of Defence under Kennedy and Johnson between 1961 and 1968 including the period of the War on Poverty⁷⁷⁹ and afterwards served as the President of the World Bank from 1968 to 1981. During a speech in 1973 he called for the eradication of absolute poverty by the end of the 20th century⁷⁸⁰ and in the early 1980s the World Bank’s main mission shifted towards targeted poverty reduction.⁷⁸¹ In the Foreword of the first WDR he stated that

⁷⁷⁶ World Bank. *World Development Report*. p. iii.

⁷⁷⁷ Yusuf. *Development Economics through the Decades: A Critical Look at 30 Years of the World Development Report*. p. 19.

⁷⁷⁸ World Bank Website. *Archives. Historical Chronology 1970-1979* (Accessed 17 September 2011).

⁷⁷⁹ See Section 4.5.2.

⁷⁸⁰ Yusuf. *Development Economics through the Decades: A Critical Look at 30 Years of the World Development Report*. p. 15

⁷⁸¹ On 5 July 1983 the poverty focus was furthered by President Clausen who sent an end-of-fiscal-year summary to staff which included poverty alleviation as the central mission. *World Bank Website. Archives. Historical Chronology 1980-1989* (Accessed 17 September 2011).

(...) some 800 million individuals continue to be trapped in what I have termed absolute poverty: a condition of life so characterized by malnutrition, illiteracy, disease, squalid surroundings, high infant mortality and low life expectancy has to be beneath any reasonable definition of human decency.⁷⁸²

The report refers four times to these 800 million⁷⁸³ without a clear explanation where the number 800 million comes from or which measurement procedure is used. Numerical information features also in for example the table to project a decline in poverty between 1975 and 2000⁷⁸⁴ (see Figure 5-6 below) although it is not explained what exactly is taken as ‘absolute poverty’ or which methodology produced this projection. Figure 5-6 shows the percentage of population in poverty in 1975 as well as the number of poor in millions in different classification of countries, as well as two scenarios depicting the situation in 2000. The methodology or background information is not given, but as can be seen, the percentages and absolute numbers of poor are projected to show a sharp decline.

Figure 5-6 Table from WDR 1978: projected decline in absolute poverty⁷⁸⁵

	34. Projected Decline in Absolute Poverty, 1975-2000					
	1975		Simulated Result in 2000			
	Percentage of Population	Number of Absolute Poor (millions)	Base Scenario		Alternative Scenario	
		Percentage of Population	Number of Absolute Poor (millions)	Percentage of Population	Number of Absolute Poor (millions)	
Low Income Countries	52	630	27	540	13	260
Middle Income Countries	16	140	4	60	—	—
All Developing Countries	37	770	17	600	7	280

— Negligible.

Although it is stated as a poverty line, in relation to ‘Low Income Countries’ a quantity is noted. The ‘Low Income countries’ are taken to be countries with annual income per person up to US\$250, but it is not made explicit how the authors view this income level in relation to poverty or a poverty line, apart from the numbers that are given in the table. Moreover, this approach uses a national focus to identify the countries suffering from poverty. While the UNDP has employed the national focus in their measurement, the World Bank would, with the development of the dollar-a-day, enable the analysis to enter the personal levels as well with individual counts and assessments with household surveys that get down to the

⁷⁸²World Bank. *World Development Report*. p. iii.

⁷⁸³ Ibid. pp. 1, 3, 7 and 65.

⁷⁸⁴ Ibid. p. 33.

⁷⁸⁵ Ibid. p. 33.

individual level. This would also allow for the identification of who is poor and use headcount measurement from survey research.

In envisioning use of poverty information for poverty reduction or alleviation, no explicit connections were made. The focus was mostly on economic growth: ‘Rapid growth and alleviating poverty are inextricably linked.’⁷⁸⁶ The ways forward are for the Low Income countries to raise agricultural productivity and create employment opportunities.⁷⁸⁷ This can be seen in line with the World Bank’s focus on economic growth.

Thus while there are suggestions on how to increase growth and alleviate poverty are made, there are no clear linkages with data or a poverty line. On the other hand, the importance of quality of information and its role for government decisions is stressed⁷⁸⁸ and monitoring performance is emphasised to create clarity for administrative responsibility for implementation or to evaluation the effectiveness of different approaches to poverty alleviation.⁷⁸⁹ The methodology or the role of numbers in this process was not mentioned in the first Report.

Since its first edition in 1978, the WDR has become an annual publication. The Reports became increasingly specific and used more quantitative approaches to development economics, which would yield the research measuring poverty in 1990. Since the first publication, the WDRs have addressed different themes each year, including themes such as the ‘state in a changing world’ (1997), ‘investing in health’ (1993), ‘industrialization and foreign trade’ (1987). This is the same practice that the HDR has taken up, each year a theme is developed in the Report. Figure 5-7 lists the different themes.

⁷⁸⁶ Ibid. p. 1.

⁷⁸⁷ Ibid. p. 26.

⁷⁸⁸ Ibid. p. iii.

⁷⁸⁹ Ibid. p. 36.

Figure 5-7 Themes of the WDRs and HDRs⁷⁹⁰

	World Bank	UNDP
Year	World Development Report titles	Human Development Report titles
2011	Conflict and Development	The human development challenges of sustainability and equity (forthcoming)
2010	Development and Climate Change	The Real Wealth of Nations: Pathways to Human Development
2009	Reshaping Economic Geography	Overcoming barriers. Human mobility and development
2008	Agriculture for Development	n/a
2007	Development and the Next Generation	Fighting climate change: Human solidarity in a divided world (2007-8)
2006	Equity and Development	Beyond scarcity: Power, poverty and the global water crisis
2005	A Better Investment Climate for Everyone	International cooperation at a crossroads: Aid, trade and security in an unequal world
2004	Making Services Work for Poor People	Cultural Liberty in Today's Diverse World
2003	Sustainable Development in a Dynamic World	Millennium Development Goals: A compact among nations to end human poverty
2002	Building Institutions for Markets	Deepening democracy in a fragmented world
2001	Attacking Poverty 2000/2001	Making new technologies work for human development
2000	n/a	Human rights and human development
1999	Entering the 21st Century (1999/2000)	Globalization with a Human Face
1998	Knowledge for Development (1998/1999)	Consumption for Human Development
1997	The State in a Changing World	Human Development to Eradicate Poverty
1996	From Plan to Market	Economic growth and human development
1995	Workers in an Integrating World	Gender and human development
1994	Infrastructure for Development	New dimensions of human security
1993	Investing in Health	People's Participation
1992	Development and the Environment	Global Dimensions of Human Development
1991	The Challenge of Development	Financing Human Development
1990	Poverty	Concept and Measurement of human development
1989	Financial Systems and Development	
1988	Public Finance in Development	
1987	Industrialization and Foreign Trade	
1986	Trade and Pricing Policies in World Agriculture	
1985	International Capital and Economic Development	
1984	Population Change and Development	
1983	Management in Development	
1982	Agriculture and Economic Development	
1981	National and International Adjustment	
1980	Poverty and Human Development	
1979	Structural Change and Development Policy	
1978	Prospects for Growth and Alleviation of Poverty	

⁷⁹⁰ Human Development Reports Website. Reports, World Bank. The Complete World Development Report Online (Accessed 17 September 2011).

As can be seen, the WDR directly addresses poverty in the first Report in 1978, in 1980, 1990 and 2000/1. The titles demonstrate the difference in perspective between the World Bank and the UNDP: the themes of the *World Development Report* have been more conventional and more economic and growth oriented; in contrast, the *Human Development Report* allows for less economically focused themes such as ‘Peoples Participation’ (1993),⁷⁹¹ ‘Gender and human development (1995),’⁷⁹² ‘Human Development to Eradicate Poverty’ (1997),⁷⁹³ or ‘Cultural Liberty in Today’s Diverse World’ (2004).⁷⁹⁴ At the same time, the titles demonstrate that the two organisations operate in the same market and elaborating on the same themes. The WDR has the word ‘development’ appear in seventeen of the thirty-two titles. The HDR explicitly addresses economic growth in 1996 and the eradication of poverty in 1997, which is the World Bank’s current mission.

Even though the Reports might look similar, the aims of the WDR and the HDR have been different. While the WDR has aimed to describe the current state of thinking on development issues around the world, it is also clear that it does promote the view of the World Bank that the best way to ensure development is to focus via economic growth- unlike the view promoted in the HDR which has seen development as an end in itself.

The dissemination of the information has been key and the Report has been successful in attracting attention. The HDR has focused on initiating and inspiring new research and creating a network and paradigm to investigate human development, which explicitly aimed to broaden the scope beyond economic growth. This can be seen in the titles of the HDRs which show that the UNDP allows for research to venture into under researched or innovative areas, using participation, culture, gender themes that are not conventionally present in economics literature.

⁷⁹¹ United Nations Development Programme. *Human Development Report 1993. People's Participation* (New York: Oxford University Press for the United Nations Development Programme, 1993).

⁷⁹² United Nations Development Programme. *Human Development Report 1995. Gender and Human Development*. (New York: Oxford University Press for the United Nations Development Programme, 1995).

⁷⁹³ United Nations Development Programme. *Human Development Report 1997. Human Development to Eradicate Poverty* (New York: Oxford University Press for the United Nations Development Programme, 1997).

⁷⁹⁴ United Nations Development Programme. *Human Development Report 2004. Cultural Liberty in Today's Diverse World* (New York: Oxford University Press for the United Nations Development Programme, 2004).

In 2009 the World Bank published *Development Economics through the decades. A critical look at 30 years of the World Development Report*.⁷⁹⁵ The author Shahid Yusuf, who directed a WDR,⁷⁹⁶ claimed that the HDR is one of the Reports that imitated the WDR. The competition between the Reports and a sense of pride can be noticed in the following quotation where Yusuf describes the success of the WDR in reference to the HDR and other Reports. 'If imitation is the sincerest form of flattery, then the WDR has certainly received more than any serial publications in the annals of development. Other Reports have carved out niches for themselves and have built their own brand names, but the WDR remains the towering oak in the forest that has sprouted on all sides.'⁷⁹⁷

In addition to the dollar-a-day outcomes, the *World Development Reports* have further published the World Development Indicators, providing quantitative information on all countries. With these WDRs have become a standard source for indicators for international comparisons and development statistics and by 2010 included more than 900 indicators, in print organised in sections World View, People, Environment, Economy, States and Markets and Global Links.⁷⁹⁸ The Reports therefore have been important as a distribution channel of the World Bank for more indicators than the numbers of extreme poverty only. The UNDP used a similar approach to distributing the HDI and the human development ideas, which is discussed next.

5.4 Users of the HDI

Statistics can be seen as an information product which have been gathered free of cost if the numbers are already in the public domain, making it difficult to trace the actual usage thereafter. However, poverty measures have had important uses and consequences. These depend on the users of the measure, which for the HDI can be identified as international users, national and policy users, the 'poor' and the NGOs who aim to represent the poor.

⁷⁹⁵ Yusuf. *Development Economics through the Decades: A Critical Look at 30 Years of the World Development Report*.

⁷⁹⁶ Ibid. p. ix.

⁷⁹⁷ Ibid. pp. 1-2.

⁷⁹⁸ *World Bank Website. Data* (Accessed 17 September 2011).

5.4.1 International users and usage

The effects of numbers are difficult to isolate and prove. In the book which he co-edited with William Alonso, Paul Starr writes: ‘to say that statistics count is not to identify (much less measure!) their effects. The effects of information or communication are notoriously difficult to specify.’⁷⁹⁹ However, both use and research on the use have been made easier with digital formats, online access and search engines, which offer new ways to trace the use of numbers digitally. As the HDI and dollar-a-day are mostly distributed and used digitally, using web searches as a methodology gives an impression of the different users and uses. The users can be identified as those who refer to the measure and then the different uses can be traced. This section employs the method of tracing the use of the HDI through the main websites of the international institutions. The websites of the main international bodies were used to search for ‘HDI’ and ‘human development index’ in the search field, which was mostly on the main interface of the website.⁸⁰⁰ As the websites can be seen as the main entry point for all uses and the main interface offers the search option, the results give an important indication of the uses made of the HDI.

This has not been a systematic or exhaustive search and the results depend on the way in which the main search engines were set by these organisations. Nevertheless, the main interface of the website can be seen as presenting the information that the organisation values most and the results of a search can therefore give an impression of the depth and breadth of the use made of the HDI.

First I searched within the UNDP, the main UN site and the website of the UN statistical division. Within the umbrella organisation of the UN I searched the websites of the sister organisations the World Health Organisation (WHO), United Nations Educational, Scientific and Cultural Organisation (UNESCO), United Nations Children’s Fund (UNICEF) and others more regionally focused on Latin America and Africa, such as the Economic Commission for Latin America and the Caribbean (CEPAL) and the Economic Commission for Africa. Other international users are cooperating and competing organisations, such as the International Labour Organisation (ILO) and the Organisation for Economic Co-operation and

⁷⁹⁹ William Alonso and Paul Starr. ‘Uses and Effects: Do Statistics Count?’, in *The Politics of Numbers*, ed. William Alonso, Paul Starr, and National Committee for Research on the 1980 Census (New York: Russell Sage Foundation, 1987). p. 53.

⁸⁰⁰ This research was performed between 21 June and 6 July 2010 and the websites referred to were checked in September 2011.

Development (OECD). UNDP's and the World Bank's engagement with users is discussed in Section 5.5.

5.4.1.1 UNDP

One of the main users is the UNDP itself. The UNDP has human development as its core goal and the Reports are important products for it; the *UNDP Annual Report* in 2010 emphasised the success by quoting the distribution: in three months the HDR 2009 had been launched in 'over 70 countries and downloaded over 80,000 times. It received media coverage totalling over 1,000 articles and was distributed widely by UNDP Country Offices to key policy makers, development stakeholders, academics and civil society.'⁸⁰¹ The Reports and Report Office also have a considerable budget allocated to them, even though they do not support projects directly. To illustrate the scale and finances involved: from the Grand Total Programme Expenditure of \$4.1 billion, \$343 million dollars were spent on 'other programme-related expenditure' which includes 'global, regional and country programme expenditure not linked to the UNDP Strategic Plan development results framework, in addition to resources for Development Support Services, Evaluation, Human Development Report Office, Special Unit for South-South Cooperation, Office of Development Studies, Economist Programme and special initiatives.'⁸⁰² The UNDP team for the Reports has a special unit of four staff.⁸⁰³

The Reports are clearly viewed as important and the UNDP has judged the HDI a 'key component of every Report.'⁸⁰⁴ The success of the Reports and HDI has been mutually beneficial.

⁸⁰¹ United Nations Development Programme. *UNDP Annual Report. UNDP in Action 2009-2010. Delivering on Commitments* (New York: United Nations Development Programme, 2010). p. 3

⁸⁰² Ibid. p. 9.

⁸⁰³ UNDP Corporate Policy on NHDRs, p. 6, quoted in United Nations Development Programme. 'Evaluation of the National Human Development Report System 2006,' Accessed 15 September 2011. p. 5.

⁸⁰⁴ *Human Development Reports Website. Bringing Human Development into Focus* (Accessed 17 September 2011).

Since its inception, the HDI has become a prominent global measure of well-being. By offering a comparison of where countries stand in the world, the HDI led the way in moving away from income as the sole measure of development. The HDI has been the hallmark of the Report and a major factor in its success and ongoing interest.⁸⁰⁵

Elsewhere, the HDI has been identified as 'key to the success of the Human Development Report.'⁸⁰⁶ Thus, the Reports promote the HDI and vice versa.

Apart from mutual promotion, the UNDP has used the HDI to classify the development of countries as very high, high, medium and low. The cut-off point for each category is: Low HDI (0.000 to 0.499), Medium HDI (0.500 to 0.799), High HDI (0.800 to 0.899), Very High HDI (0.900 to 1.000).⁸⁰⁷ While this classification would be expected to yield more or less funding or resources allocated in response, in terms of programme expenditure or geographical allocation of resources, there is little evidence to date of the HDI or this classification being used for resource allocation. The head of the HDR research team, Francisco Rodríguez, notes the 'use of the Human Development Index for the allocation of development funding at the sub-national level in several countries' but does not specify where or to what extent this has been pursued.⁸⁰⁸ Nor does the UNDP itself seem to use the HDI for its own programme planning. Instead, the focus has been on advocacy and raising awareness.

The HDR teams for global and national editions have used the HDI and the Reports to draw attention to the human development and capability approach and to shift the focus from the GDP per capita, which had been the original measure for development. For them, the HDI functions as a flagship, an 'attention grabber' for the human development approach which raises awareness of the underlying information and additional products and services. The factual appeal of the HDI's being quantitative has added strength to its aim of advocacy and it offers direct competition with the more traditional measure of GDP growth. While the messages of the capability approach were being sent before 1990, the fact that the HDI presents the message in quantitative form is essential. This is because the product is different, it is not merely a packaging of the same human development message in a quantitative format. It is through the numbers that attention is channelled to take into

⁸⁰⁵ Ibid.

⁸⁰⁶ Francisco Rodríguez. 'Human Development Comes of Age,' *OECD Newsletter Measuring the Progress of Societies* 7 (2010). p. 9.

⁸⁰⁷ United Nations Development Programme. *Human Development Report 2009. Overcoming Barriers: Human Mobility and Development*. pp. 143-6.

⁸⁰⁸ Rodríguez. 'Human Development Comes of Age.' p. 9.

account the elements standards of living, health and education and, more importantly, it combines the different elements in one composite index. This makes comparison possible, which in verbal or other formats of information would have been more difficult. However, as the academic users have pointed out (see Section 5.5.2), this composite index as well as the comparative features can be criticised or can justify dismissing the measure. Despite the criticism on the content, the index has worked very well as a quantitative expression of development, allowing countries to compare their situation and to allow for the broader development perspective instead of focusing on economic growth alone.

5.4.1.2 UN and UN statistical division

Although the UN as the umbrella organisation was likely to be a main user of the HDI, the UN and its statistical division⁸⁰⁹ cannot easily be connected to the direct use of the HDI. Interestingly, a search for the HDI on both websites yielded no results. This basic search on the websites was performed on 4 June 2008 by entering HDI and Human Development Index on the search field of the search page of both the UN and UN statistics division websites. However, the same search three years later yielded 1050 results on the UN page.⁸¹⁰ The search engine could have been set differently, or it may have taken a while before the measure finally penetrated the market even within the UN. As Michael Ward notes, the ‘HDR was a bold departure from the data traditions of the UN.’⁸¹¹ In addition, the UN provides a complex maze of development initiatives of which the human development frame is only one. Jolly maintains that ‘UN agencies fail to see its relevance as an analytical frame of human-centred development within which their own operations could be set.’⁸¹² The bureaucracy and size of the UN has been a maze through which the HDI has not yet penetrated to the point of being fully adopted. Thus, even though the UNDP has been part of the UN, the umbrella organisation does not fully embrace the HDI as a development measure, not even for the Millennium Development Goals (MDGs) for which it would be the most obvious choice.

⁸⁰⁹ The United Nations Statistics Division (UNstats) has been internationally active in cooperating and standardising statistical data since the Second World War.

⁸¹⁰ *UN Search For: Hdi* (Accessed 17 September 2011).

⁸¹¹ Michael Ward. *Quantifying the World: UN Ideas and Statistics, United Nations Intellectual History Project* (Bloomington, Ind.: Indiana University Press, 2004). p. 202.

⁸¹² Jolly, Emmerij, and Weiss. *UN Ideas That Changed the World*. p. 195.

5.4.1.3 UN and other international bodies

The different sister organisations of the UNDP and other international organisations illustrate a variety of the uses to which the HDI has been put. The World Health Organisation can be expected to value the HDI because one of their core aims is healthy and long lives. The uses vary widely, from making it a source of background facts, to connecting the HDI rankings with blood safety in member states.⁸¹³

The UNESCO websites yield HDI use in such forms as a Report for the 'Education for All' initiative, which correlates the HDI with crisis education. One of the conclusions is 'Conflict is strongly related to the level of human development (60 per cent of low Human Development Index (HDI) and 24 per cent of medium HDI are conflict countries).'⁸¹⁴ Interestingly, this conclusion does not take on any HDR analysis or additional information. Instead the 'education for all flagship initiative' refers only to the HDI to demonstrate the correlation between crisis and HDI without probing more deeply for further analysis.

The search on the UNICEF website yielded 75 results, most of which were social policy documents referring to the HDI as background information for specific countries the HDI is used in statements,⁸¹⁵ but also as a blueprint for a new index.⁸¹⁶

The World Food Program gave five results all using the HDI to note the ranking of a specific country which they reported on.⁸¹⁷

Two of the more regionally focused bodies surveying Latin America and Africa are CEPAL and the Economic Commission for Africa. A search on their websites yielded results from Reports and the use of the HDI for 'background facts.' In addition, the HDI is linked to gender issues, for example, in the African Women's Report 2009.⁸¹⁸

Other international users are cooperating and competing organisations which are not part of the UN. These organisations are not focused on the developing world. The ILO has been identified as having pioneered work on basic needs in the 1970s

⁸¹³ World Health Organisation. *Global Database on Blood Safety Report 2004–2005* (Accessed 18 September 2011).

⁸¹⁴ Unesco Website. *Efa Flagship Initiatives* (Accessed 18 September 2011).

⁸¹⁵ Unicef Website. *Dr. Ernest C. Madu: 'Investment and Development Will Secure the Rights of the Child'* (Accessed 18 September 2011).

⁸¹⁶ Bob Baulch, Axel Weber, and Joe Wood. *Social Protection Index for Committed Poverty Reduction*, ed. Bob Baulch, et al. (Mandaluyong City, the Philippines: Asian Development Bank, 2008).

⁸¹⁷ World Food Programme Website. *Search* (Accessed 21 June 2010).

⁸¹⁸ Economic Commission for Africa. *African Women's Report 2009. Measuring Gender Inequality in Africa: Experiences and Lessons from the African Gender and Development Index* (Addis Ababa, Ethiopia: United Nations Economic Commission for Africa, 2009).

and this work can be seen as a precursor of the HDI.⁸¹⁹ The search on the ILO website yielded 83 results, with a variety of uses. The director general used the HDI as a key statistic in the Report on ILO activities in Africa between 1994 and 1999. Official meetings refer to the HDI and also evaluate its Reports.⁸²⁰ As with most organisations, the HDI is used for background information in country-specific documents. In addition, the HDI is used in working papers in relation to labour indices.⁸²¹

As the ILO website includes dates, the results illustrate the time of use. Most of the current documents dated from 2009 and 2010, except for three which were dated 2007. This may be a result of the search function, of uploads of documents, or indicative of the time it has taken for the HDI to penetrate the market.

The OECD results demonstrate two types of use: on the one hand, the HDI is analysed as a measure, while on the other, documents on certain countries use the HDI to specify background information – mostly on the placing of a certain country in the HDI the rankings.

5.4.1.4 Variety of use and aims for use

The results of the searches on the websites of the organisations varied between no hits at all (UN and UN statistics in 2008) and over 2400 hits (UN 2010) while some websites did not specify the number of results. Some websites indicated the type of documents in which the HDI was used. For example, the main UN website yielded more than 2400 results and included a variety of different types of hit, including power point presentations, PDF files, full Reports, word documents, press releases, etc.

The results depend on the settings of the search engines which may be more restrictive in some cases than others. For example, the websites used different search engines: some would refer to Google, whereas others would remain within the organisation's own interface. Whereas no interpretation can stretch to a full conclusion about the actual use of the HDI, the results give an impression of where the HDI has penetrated the market.

⁸¹⁹ Jolly, Emmerij, and Weiss. *UN Ideas That Changed the World*. p. 191

⁸²⁰ *International Labour Organization. Final Evaluation ILO/Japan Asian Regional Program on the Expansion of Employment Opportunities for Women Project 2002* (Accessed 18 September 2011).

⁸²¹ *International Labour Office Geneva. Employment Paper 2002/36. World and Regional Estimates for Selected Key Indicators of the Labour Market Employment Sector* (Accessed 18 September 2011).

As with commercial products, we have seen that the HDI and its complementary and related products took different amounts of time to penetrate different markets. Although the HDI instantly drew much attention and users engaged with it, initially it seems that the academic market was the first to engage with it. At the same time, the ranking lists were far more successful at penetrating the media and political markets – indeed this product was an almost instant success with the media. After its initial success in the academic market, the HDI has gradually managed to extend its penetration into other markets, perhaps most notably those of international and national development, economics and politics – the HDI is now seen as the main development indicator and a ‘politically important and widely used simple composite index of progress.’⁸²²

The examples from the international organisations clarify several different ways of using the HDI and which aims it has served. The most common seems to be to use the HDI and mostly the rankings on the list to offer ‘background facts’ on a specific country. The HDI ranking is then seen as a ‘key statistic.’ The HDI is also used to find the relationship between development and other variables or themes. Examples include health variables such as blood donation safety⁸²³ or the success of stem cell transplant rates⁸²⁴ or social variables such as education⁸²⁵ and social vulnerability.⁸²⁶

While the newspapers use the HDI for comparative purposes,⁸²⁷ the international organisations seem not to draw conclusions from comparing the rankings, nor is there much evidence of competition or explicitly using the HDI for the purpose of advocacy.

Meanwhile, organisations not specifically focused on development, such as the ILO and OECD, do not use it uncritically but, unlike the UN organisations, challenge its methodology. The evidence examined also suggests that whereas developing countries use the indicator as an advocacy tool, to support their concerns

⁸²² Ward. *Quantifying the World: UN ideas and Statistics*. p. 201.

⁸²³ Blood donations safety is related to the HDI classification in *World Health Organization. Western Pacific Region. Fact Sheets. Blood Safety and Voluntary Donations* (Accessed 18 September 2011).

⁸²⁴ *Science Daily Website: Human Development Index Linked to Stem Cell Transplant Rates and Success in Leukemia Patients* (Accessed 18 September 2011).

⁸²⁵ *Cepal Report. Education and Its Impact on Poverty: Equity or Exclusion. Paper for Unesco Forum on Education for All in the Caribbean: Assessment 2000* (Accessed 18 September 2011).

⁸²⁶ Usage to develop other measures such as the social vulnerability index: *Cepal Report. Eclac/Cdccc Report on the Ad Hoc Expert Panel for the Development of a Methodological Approach for the Construction of the Social Vulnerability Index (Svi)* (Accessed 18 September 2011).

⁸²⁷ See Section 5.4.2.1.

on the development agenda, the use of the indicator in the developed world tends to consider the meaning and value of the measure itself more deeply.

Even though the HDI was set up with people in mind for human development, the global HDI does not facilitate this directly. The main outcomes are the national HDI and the ranking – how a country is doing compared to others – but these do not take into account inequalities within countries or how the HDI can itself be improved. The HDI has evolved into an advocacy tool for focusing attention on the developing world as a whole and development work, but it does not guide policy advice. With the success of the global HDI and Reports, however, the UNDP has become active at the national level, which is where the human development approach can actually become more specific.

5.4.2 National and policy users

The way that the HDI has been used on a national level has been through the mass media, political engagement and advocacy. In addition, the success of the HDI and HDR has encouraged their national activities through the local UNDP offices and regional, national and local Reports. These are examined in turn below.

5.4.2.1 The media and political engagement

The UNDP has actively reached out to the media, which from the beginning embraced the Reports and the rankings. Through the media and the increased popular awareness, the HDI has been used for debate and advocacy. Most effective has been the comparison which the HDI ranking allows, in making it easy for countries to compare their situation to their neighbours', or their peers in size or culture or to otherwise important countries.

The ranking list has proved very effective, attracting much attention from journalists which has fed into the public debate and in turn transformed the position in the ranking into a competitive prestige issue for many countries, both highly-ranking and less so. India and Pakistan yield the following statements.

In the Human Development Index (HDI), India stands at a low 138th (of the total 175 countries). *But the fact is that for the first time, India has done better than Pakistan.* HDI of Pakistan is only 139 and this does bring a small measure of solace.

Pak beat India, both lose! The United Nations Development Programme Report for 1998, released on Wednesday, shows that India and Pakistan continue to be somewhere at the bottom of the ladder of human development.... Had the ‘*human development*’ contest between the two been for the top positions, there may still have been something in it for either side to crow about.... The UNDP has given Canada the top rank on the human development scale for the fifth consecutive year. *India should study and adapt the Canadian model* for moving up the human development ladder.⁸²⁸

These comments demonstrate the element of competition between the two countries. Moreover, one refers to the human development contest, appealing to the idea that in order to win countries have to make an effort. A connection is then made between the Canadian outcome, which was ranked highest at the time, and India, arguing that India should follow the Canadian model. While this type of reasoning has been the UNDP’s goal, the writer leaves it unclear what ‘studying the Canadian model’ would do for India. Problems of their different contexts and histories arise, as well as questions such as what exactly the Canadian model is which parts of the model are relevant or even applicable to India. Although these issues are problematic, they deserve more attention and the HDI makes them known. Thus these examples show that the HDI serves as a way of drawing attention and as an advocacy tool to focus on development issues. The HDI rankings and the HDI can thus be seen as gateways to the underlying data and the ways in which the policy changes inspired by other countries can make a difference for human development.

The UNDP has been active in creating political engagement and forming alliances on national and even more local levels. The link between the global human development approach and its local application has been made by reaching out to the media and also to the politicians and policy makers. The local UNDP offices have involved politicians in the launch of the Reports and there has been lively interaction between government and UNDP, using the HDI for policy. For example, Brazil has actively used the HDI for refining income-distribution policies. President Cardoso

⁸²⁸ The quotations, respectively from *Indian Express Newspaper* (India; June 12 1997) and *The Tribune* (India; September 14, 1998) are from Stephen Morse. ‘For Better or for Worse, Till the Human Development Index Do Us Part?’, *Ecological Economics* 45, no. 2 (2003). pp. 292-3 (Emphasis added).

launched a US\$ 6.5 billion Social Program specifically targeting the 14 Brazilian states with the lowest HDI.⁸²⁹ Therefore, the product design of the HDI has allowed the index to function as an advocacy tool for taking the human development concept into account for policy and not merely focusing on economic growth. Given the complexity of development, the HDI does not facilitate target setting in terms of aiming for an increase in the HDI by a set number of points. The measure is set up to make only education the most accessible part of the HDI for targeting policy to improve the HDI outcome. This is because the proxy for education acts as an input measure: a government can act on improving the enrolment rates and thus directly improve the HDI. In contrast, the proxies for health and standard of living are output measures; any investment in improving these elements is delayed and influenced by broader policy efforts and other causal chains which are not directly related to policy efforts alone. Thus, by focusing on increasing enrolment rates, a government can increase its HDI immediately, while investments in health and GDP growth will only become visible in the HDI over time and even then are hard to identify separately. Thus the HDI allows for use as a policy target but mostly an indirect one. More generally it can be used for emphasising government investment in health and standard of living, though without this use being easily audited by the HDI, because the results are indirect and lagged. This is also the reason why the HDI as a global measure is problematic as a policy device, since the causal relationship between policy and outcome is complex and policy intervention is only one of many factors that influence the elements. In any case, these elements are also combined in the index, which further obscures the direct effects.

Therefore the UNDP has been active in working more closely towards making the index more relevant on the national level, using national Reports which facilitate the local circumstances and issues to be taken into account, using the human development framework.

5.4.2.2 National, regional and local Reports

The national level is where most of the policy is designed and has the most potential. The UNDP actively works with countries in the field and has local offices in 177

⁸²⁹ As declared by H.E. Ambassador Luiz Felipe Lampreia, Minister of External Relations of Brazil: *UNDP Ministerial Meeting Intervention by H. E. Ambassador Luiz Felipe Lampreia Minister of External Relations of Brazil in New York on 11 September 2000* (Accessed 18 September 2011).

countries.⁸³⁰ It has built alliances with governments and its HDR teams go down to the national level to produce national Reports. These derive from the combined success of the HDI and of the global Reports. The national Reports have a main framework set up by the UNDP, yet the content shows the input from each local situation. The Report team consists of international academics, a UNDP team member and locals.

In 1992 the UNDP expanded the range of its Reports to include National Human Development Reports and since then 675 national Reports have been published.⁸³¹ The evaluation of the NHDRs system in 2006 clarified the three main objectives of the NHDRs: to raise public awareness of the human development perspective; to strengthen national statistical capacity to identify and measure human development status and its shortcomings and strengthen the analytic capacity to understand them; and to shape policies and programmes to achieve improvements in human development through solid analysis.⁸³²

While the global Reports offer the HDI and related indices for the different countries, the national Reports allow for local circumstances to be taken into account and national policy needs to be addressed. As the evaluation emphasises:

The NHDR has therefore evolved as the one vehicle in which UNDP's core concern is seriously discussed and analysed in the local context. It is, or should be, the intellectual and analytic expression at the national level of UNDP's mission.⁸³³

The success of the HDI and the HDR has created a space in which the national Reports could be produced to further advance human development. This can be seen in the way that the evaluation focuses not on the Reports only but takes the

NHDR system as a whole, to refer 'to the processes and partnerships involved in producing and disseminating NHDRs and working to achieve their intended outcomes – namely, to influence macro-level decision-making, strengthen capacity to advocate human development measures and promote human development awareness throughout society.'⁸³⁴

This places the Reports and the measures in context, to function not only as statistical tools, but to be part of a larger system. Still, the HDI and statistics are a

⁸³⁰ *United Nations Development Programme Website. About Us.*

⁸³¹ *Human Development Reports Website. National Reports* (Accessed 18 September 2011).

⁸³² United Nations Development Programme. 'Evaluation of the National Human Development Report System 2006,'

⁸³³ *Ibid.* p.4.

⁸³⁴ *Ibid.* p. 1.

core component of the Reports and could have an even larger role. One of the twelve recommendations for corporate decision-makers gives statistics an even more explicit role and advises their disaggregation, since this has proved useful for countries with inequalities, it creates less controversy and it encourages political ‘champions’⁸³⁵ to take on particular issues. Recommendation eight is ‘Disaggregate statistics to cover sensitive issues.’⁸³⁶

The NHDRs have notably been a main channel for UNDP dialogue with stakeholders, in particular decision-makers at the national and regional levels and civil society organisations. The production of NHDRs is usually a ‘highly decentralized exercise.’⁸³⁷ Even though the content is allowed to emerge bottom up, the main brand is still the Human Development Report and this is supported by the UNDP. The UNDP website provides a separate workspace with ‘Regional, National and Local Human Development Reports Resources’⁸³⁸ which has set out the guidelines and toolkits for ‘achieving excellence in HDRs.’⁸³⁹

The role of the UNDP as comparable to that of a multinational organisation for commercial products can be illustrated by the way that the UNDP Administrator presented a ‘Business Plan’ which asserted the function of the Reports: to raise awareness and trigger action.⁸⁴⁰ The evaluation noted that ‘corporate policy’ employs six principles for NHDRs: ‘national ownership, participatory and inclusive preparation process, independence of analysis, quality of analysis, flexibility and creativity in presentation and sustained follow-up.’⁸⁴¹

On the influence of NHDRs the evaluation Report is positive: NHDR succeeded in spreading – and firmly establishing – the concept of human development in development discourse.

⁸³⁵ Ibid. p. viii.

⁸³⁶ Ibid. p. viii.

⁸³⁷ Ibid. p. 4.

⁸³⁸ *Human Development Reports. Regional, National and Local Human Development Reports Resources* (Accessed 18 September 2011).

⁸³⁹ *Human Development Report Toolkit for National and Regional Human Development Report Teams. Practical Guidelines, Examples and Resources for Achieving Excellence in HDRs* (Accessed 18 September 2011).

⁸⁴⁰ United Nations Development Programme. ‘Evaluation of the National Human Development Report System 2006,’ p. 4.

⁸⁴¹ Ibid. pp.4-5.

[T]his accomplishment included new or improved production of human development-related statistics, including those needed to calculate the major HDIs; 'if one wishes to promote human development, then the NHDR is UNDP's only instrument available for defining what the goal of human development entails at the national level and analysing obstacles to achieving it. The NHDR thus constitutes UNDP's unique *brand*, for no other international organization is responsible for promoting human development in all its dimensions.'⁸⁴²

The UNDP therefore has the agenda to spread the human development perspective and the success of the global HDI and HDR has encouraged the activities on the national level. These activities have a different dynamic, as can be seen in the six principles, which illustrate that these activities are engaged actively with the users of the human development products. This contrasts with the World Bank, which does not engage with its users as such and does not have the larger system approach to foster a paradigm. A NHDR unit of four full-time staff was created in 2000, which explains the importance of the local needs:

The NHDRs must be country based and country driven. They must focus on country realities and reflect well-defined national perspectives on human development in addressing priority national themes, emerging trends, opportunities and challenges. They must promote national policy dialogue, constructive expression of divergent views and the identification and analysis of development.⁸⁴³

These remarks illustrate again the attempts made by the UNDP to work from the bottom up. Although the main framework and template of the NHDRs are set by the main office, the actual work and content of the Reports are supplied and informed by local needs.

In addition to the national Reports, the range of Reports and the level of analysis have expanded to include regional Reports⁸⁴⁴ and more local Reports, for example the Report of one of the states of India: Tamil Nadu.⁸⁴⁵ This Report aimed to be a 'document of the people and blueprint for future action.'⁸⁴⁶ It revealed regional disparities within the state and in the nation as a whole. To this end, specific HDIs were produced yielding outcomes such as the state having an HDI of 0.657 in

⁸⁴² Ibid. p.4 (Emphasis added).

⁸⁴³ UNDP Corporate Policy on NHDRs, p. 6, quoted in *ibid.* p. 5.

⁸⁴⁴ In 1994 there was a first Regional Report for Asia and the Pacific to stimulate debate and focus on human development in the Pacific. United Nations Development Programme. 'Pacific Human Development Report,' Accessed 19 September 2011.

⁸⁴⁵ United Nations Development Programme. 'Tamil Nadu Human Development Report,' (Delhi: Government of Tamil Nadu in association with Social Science Press, 2003).

⁸⁴⁶ *Ibid.* p. xix.

comparison to the national average of 0.571. In addition, the reactions to the ranking of all the Indian states included noting the four-position rise of Tamil Nadu between 1981 and 2001 and a challenge 'to combine the Kerala model of human development,' the highest on that list, with the economic growth of Punjab,⁸⁴⁷ which comes second. This subnational use of the HDI demonstrates similar applications to national results and rankings, such as described above in the reaction to the comparison of India and Pakistan and the idea to 'use models' at the top of the rankings, even though it remains unclear what that might mean in practice. This limitation is also noted by a critical review which lists eight limitations, including the 'far from concrete' recommendations for policy intervention.⁸⁴⁸ Thus, even though the Reports already zoom downwards from the global to the regional, national and local levels, the HDI and the Reports are mostly used for opening debates and advocacy rather than direct policy guidance. The aim is to help the people in need but it remains problematic how to act upon this notion using the human development approach.

5.4.2.3 The poor and international NGOs

The use of the HDI for the poor is also problematic, for it is an aggregate measure, taking development on the national level only and therefore obscuring inequality, which is often a serious problem in the developing world, but also combining the three elements of development. Even the Reports which discuss development themes cannot report direct links between action and results as the effect of human development efforts, such as those which occur through the interaction between local UNDP teams and politicians. The effect of such action on the poor is indirect and the causality and effectiveness in actually reaching the beneficiaries are complicated to trace.

The HDI was created with the aim of making a difference to people, to those who would benefit from better human development. However, while the 'poor' are the main intended beneficiaries of most development work, they are not a group as such to the users of the HDI or the dollar-a-day indices. The 'underdeveloped' are not in a position to use the HDI for their own advocacy. The poor do not exist as a group and are not geographically or otherwise organised.

⁸⁴⁷ *Economic and Political Weekly*, 'Tamil Nadu: Growth Disparities,' 23 August 2003, p. 3517.

⁸⁴⁸ Vijayabaskar M. 'Human Development in Tamil Nadu. Examining Linkages.' p. 802.

Poverty measures enable others to represent the poor, but even though the ultimate aim is to alleviate poverty and aid development, the HDI by itself does not aid anyone. Action must emerge from the academic and political decision-making process before the poor can be targeted. This is the case for all poverty measures; in one way they unite the poor, but only on paper. In practice the poor cannot be treated as a group, although the measure does collect them in statistical terms. For this reason, the unemployed are more easily organised through government tax and benefit requirements involving employment bureaus and registration. The poor, however, cannot be brought together as easily; they remain individuals who through legislation for poverty relief or other state support can become eligible, while still remaining a group for others' intervention. This creates the problem of their being represented by parties who in effect are accountable to their funders but not to the people whom they target.⁸⁴⁹

Nevertheless, the local HDIs do identify areas where development is most needed, which then can be taken up by the UNDP, non-governmental organisations (NGOs) and politicians, who then use the HDI to give the poor a voice. Some NGOs are active at local, national and regional levels, as well as on the international level, such as OXFAM. The website of Oxfam international lists five results, including a press release which refers to the HDI in a briefing on sexual violence in Columbia.⁸⁵⁰ While the HDI offers comparison, this does not help to assemble groups which are missing out on economic progress and hence it is difficult to use the HDI except indirectly; its role as an advocacy tool rather operates at a more general level, as a means to draw attention to the need for development work. As one director of UNICEF mentioned, the HDI is not easily used for development practice. The Millennium Development Goals seem easier to deal with since they offer targets and a more specific approach to development themes which as the joint efforts by government, international organisations and NGOs offer a common platform which for the UNDP is attainable through the human development approach, still to be

⁸⁴⁹ I would like to thank Professor Tim Allen for drawing this to my attention at the 22 May 2008 LSE workshop about aid organisations and evidence reporting schemes.

⁸⁵⁰ www.oxfam.org.uk/resources/policy/conflict_disasters/downloads/bp_sexual_violence_colombia.pdf — 10 September 2009 —

accomplished. But even the MDGs do not offer clear policy guidance or are too broad to be used on the ground.⁸⁵¹

In sum, the success of using the HDI has varied according to the different user groups. International organisations have used the HDI mostly for background information on specific countries and for comparison, using the rankings and development over time. In addition, countries have used it to comparing themselves to others or to find another at the top of the list to emulate. The success of the global HDI and Reports facilitated regional, national and local expansion, which allowed for national Reports which could accommodate the circumstances and development issues proper to the countries concerned. This links the global approach of human development to national guidelines and policy guidance. Nevertheless, the HDI is still hard to connect to direct development work, although the network and interaction between the UNDP, politicians and NGOs have helped to emphasise human development rather than growth. The HDI has also been used to give a voice to the poor, despite the difficulty of doing so for such a diverse group. The HDI and MDG have been referred to, although a more direct measure such as the World Bank dollar-a-day, identifies countries according to their numbers and proportion of population below the poverty line. The main use of the HDI is through the appeal and emphasis of human development; the UNDP has actively worked on reaching out to and engaging with the users of its products. The World Bank has interacted with the users of the data in a very different way, as the next section discusses.

5.5 Engagement with users: UNDP versus World Bank

The UNDP and the World Bank (as producer of the dollar-a-day) have engaged very differently with the users. There are contrasts in the way that the measures were distributed, how the organisations engaged with academic critiques, the ownership of the measures and the way in which the nature of the organisation has affected the interaction between producer and user.

5.5.1 Distribution

The UNDP has used various distribution channels, which in effect are separate products, including the Reports, the online access to information and data, as well as

⁸⁵¹ Point raised during discussion at Workshop organised by the Von Hügel Institute/Capability and Sustainability Network, University of Cambridge, in collaboration with the United Nations Development Programme (UNDP) / Human Development Report Office (HDRO). 28-29 January 2010. Cambridge, UK.

the networking and discussion panels that are available. The activities of the UNDP related to the HDI can all be seen as part of the mutual promoting of the HDI and the human development approach: they are promoted in both directions, the HDI as a competitor to the GDP growth – thus to actively compete with the growth agenda and focus of development agencies such as the World Bank. In addition, the HDI yielded the ranking list that has proved successful in generating news coverage and this in turn has promoted the human development focus and its policy implications.

In contrast the World Bank's dollar-a-day was a research tool that allowed poverty to be quantified, without further agenda for policy. In terms of the promotion of the dollar-a-day the World Bank has not seemed very active in distributing the measure, other than publishing the research paper, which was done in its own right rather than to promote the dollar-a-day as a measure. Indeed, as discussed above, from a technical viewpoint the research did not quantify the poverty line as a dollar-a-day, the measure was only coincidentally close to one dollar-a-day. As this phrase was catchy, it stuck; the media used it and so did World Bank itself in its follow-up research and publications.

After their first production, both measures became better known, at first separately but increasingly in competition. In the product approach this could be seen as the first mover being the World Bank, as a leading poverty authority in the development field, until another producer enters the market, actively seeking its own market share and all that this implies in terms of efforts to promote and advertise itself. In promoting the index, publications and website services, the new market entrant used the reputations of the UN, the publisher of the Report (the well-known academic publisher, Oxford University Press) and a panel of advisors to strengthen its credibility and widen its distribution. Moreover, although it cannot be directly compared to product advertisement by celebrities, the involvement of the Nobel laureate Amartya Sen added to the appeal and acceptability of the measure.

That the distribution strategies of the UNDP were successful can be judged by the fact that the World Bank went on to adopt similar strategies – a sign that it was losing market share to the new entrant and was forced to acknowledge the UNDP's measure and presence as a serious threat. A World Bank official has been

quoted as saying ‘your HDI is driving us crazy.’⁸⁵² Thus, for example, the World Bank became more active in using its website for dissemination purposes. The website distributed a variety of research data and information to different client groups. While the website offered targeted information and allowed the visitor to choose a portal such as ‘academics,’ or ‘youth,’ interestingly, the data group at the World Bank had no information on who actually accessed the website and what they used the data for.⁸⁵³ The World Bank can therefore be seen as a more unself-conscious distributor than the UNDP. The information was ‘sent out there’ without engagement with the users. Thus, while the UNDP was first to make extensive use of a website, including comparative graphs and interactive tools, the World Bank later followed and also embraced the internet as a distribution channel.

5.5.2 Interaction with academic critiques

5.5.2.1 Framework for critiques

The dollar-a-day has provided a simple metric which does not allow for much internal manipulation. The academic responses to it reflect this and allow for a different response – to take unquestioningly or refuse⁸⁵⁴ the dollar-a-day as a measure. In contrast, the UNDP with its first Report deliberately and successfully opened up a debate on the use and significance of the HDI itself and the human development approach and received critiques on the concept, institutions, inputs, calculation and presentation (see Figure 5-8).

⁸⁵² Opening presentation by Richard Jolly on 28 January 2010 in Cambridge UK. Workshop organised by the Von Hügel Institute/Capability and Sustainability Network, University of Cambridge, in collaboration with the United Nations Development Programme (UNDP) / Human Development Report Office (HDRO). 28-29 January 2010. Cambridge, UK.

⁸⁵³ Interview I held at the World Bank in Washington, D.C. on 14 June 2007.

⁸⁵⁴ For example by Reddy and Pogge, see Section 5.5.2.3.

Figure 5-8 Debated aspects of the production of the HDI

Aspect of production	Critique	Authors
1. Concept	Concept HDI	Srinivasan Streeten
2. Institutions	Nat. Stat. Systems UNDP	Srivinasan
3. Inputs	Available data Reliable data National aggregation Choice elements	Morse Murray Loup et al.
4. Calculation	Index number -normalization -weighting - equation	McGillivray Kelly Rao Streeten Sagar and Najam Gormerly Acharya and Wall Mazumdar

The first row shows that the concept itself can be criticised. Here the comparison with the hitherto common measure of development, per capita GDP, is important. The approach of not only taking income into account, but also longevity and knowledge, clearly differs from the conventional approach. Where income and growth are the usual centre of attention, income in the human development approach is seen as means, not as an end. Moreover, whereas many handbooks of international economic development approach knowledge and health as mere means to gain more income, in the human development approach knowledge and a long life are seen as goals in themselves and not as means only. Changing the focus from income to longevity, knowledge and its possibilities requires the quantification of these terms in terms of measurable items. Quantification is thus important for the concept of HDI: whether it is possible to quantify these items and also for the way in which the terms are translated into measurable data. This is the first step on which the collection of the data by the institutions (second row) is based.

The second row refers to institutions. National statistical systems are important in delivering the data to the UNDP. Institutions affect the quality of the data collection and so influence the availability, reliability and national aggregation of data, which are seen in row three. The quality of data is not static, since as the institutions develop, quality and availability improve. Data on income, for example,

now widely available, was not always so. Only since the Second World War has the amount and quality of data about national product and income increased sharply. Previously, information on income had been perhaps as hard to access as information on development is at present. The building of statistical institutions is thus important in increasing the amount and quality of data. This also means that the different aspects above make their own progress.

In the third row on inputs, the selection of data is central. The availability, reliability and method of national aggregation determine the usefulness of the data. There is an interconnection between the second and the third row, since the elements to be chosen for use in the index number may not be there at first and must be collected for the index number. In the fourth row, the method of calculation is under review. It is an index number for which normalization, weighting and equalising are needed. The fifth row concerns presentation. Annually, the HDI is presented in the *HDR* in a ranking list headed by the most developed countries. To illustrate, Figure 5-3 reproduces the most developed countries, Figure 5-4 the least developed countries and Figure 5-5 the averages for comparison. Criticisms of these different aspects in the construction of the HDI need not connect, as the review of critiques below shows. The quality of the statistical systems, for example, cannot be taken as arguments against the use of the HDI in general. These systems can be improved, just as the statistical systems to collect data on GDP have improved in the last fifty years.

5.5.2.2 Review of critiques

The UNDP invited reaction and the academic critiques below illustrate some of the more debated aspects of the HDI (see Figure 5-8).

Usefulness

The fact that the HDI was new initially provoked questions of whether it was necessary at all. The concept of the index, its usefulness and its construction have been discussed by McGillivray,⁸⁵⁵ Kelley,⁸⁵⁶ Rao,⁸⁵⁷ Srinivasan,⁸⁵⁸ Streeten⁸⁵⁹ and Sagar and Najam.⁸⁶⁰

⁸⁵⁵ Mark McGillivray. 'The Human Development Index: Yet Another Redundant Composite Development Indicator?,' *World Development* 19, no. 10 (1991).

⁸⁵⁶ Alen C. Kelley. 'The Human Development Index: "Handle with Care",' *Population and Development Review* 17, no. 2 (1991).

McGillivray⁸⁶¹ examines the composition and usefulness of the HDI as a composite development indicator. Based on simple statistical analysis, he claims that the HDI is a redundant indicator. He concludes that the composition of the index is flawed since it is significantly and positively correlated individually with each of its component variables. The HDI does not add value: the inter-country development levels on any one of the individual elements yield similar results to those which the index itself yields. In addition, the index taking the elements together does not give any new insights into inter-country development that differ significantly from those given by GNP per capita.

Kelly is critical of the usefulness of the conceptual framework of human development, as specifically represented in the HDI.⁸⁶² According to him, there are five debatable issues. The HDI takes exceptional values for the endpoints on which a country's position is based. Moreover, it is not consistent, since the elements are normalized in different ways. The endpoint for literacy and life expectancy are taken as the highest country value, while the GDP per capita is taken to be the developed country's poverty line. Furthermore, since developed countries are close to the maximum values for the HDI, these countries can make little progress. Fourth, the equal weight attached to the three elements is challenged. Finally, he states that overall human development is advanced by a more equal distribution as well. Kelly concludes that the HDI does not give more insights than does the GDP per capita transformed into logarithms. He states that, until the conceptual underpinnings of the HDI are more firmly established, analysts and policymakers are better served by using much simpler measures and methods for evaluating human development.⁸⁶³ The basis of Kelly's objections are the decisions made in the construction (row 4). His argument about choosing between new and established measures does not imply an objection to the human development concept in itself, however, since he argues

⁸⁵⁷ V.V. Bhanoji Rao. 'Human Development Report 1990: Review and Assessment,' *World Development* 19, no. 10 (1991).

⁸⁵⁸ T.N Srinivasan. 'Human Development: A New Paradigm or Reinvention of the Wheel,' *The American Economic Review* 84, no. 2 (1994).

⁸⁵⁹ Paul Streeten. 'Human Development: Means and Ends,' *American Economic Review* 84, no. 2 (1994).

⁸⁶⁰ Ambuj D. Sagar and Adil Najam. 'The Human Development Index: A Critical Review,' *Ecological Economics* 25, no. 3 (1998).

⁸⁶¹ McGillivray. 'The Human Development Index: Yet Another Redundant Composite Development Indicator?.'

⁸⁶² Kelley. 'The Human Development Index: "Handle with Care".' p. 315.

⁸⁶³ Ibid. pp.315-6.

that the conceptual underpinnings need to become more established before it can become of more value.

Rao comments on the fact that there is not much new about the approach of the *HDR*.⁸⁶⁴ He makes a distinction between economic growth, economic development and human development, where the use of the terms has been indiscriminate. The equal weighting is also taken into account⁸⁶⁵ and a second problem is the way the HDI computes deprivation in purchasing power, for which the average poverty line income in industrial countries is taken as a base line. His arguments thus deal with calculation (row 4).

According to Srinivasan,⁸⁶⁶ the Report incorrectly claims that the growth rate of per capita GDP had in the past been the sole measure of development and that distribution had been forgotten. He gives examples of using the notion of the instrumental role of income growth, which was noted earlier and more often than the *HDR* indicates. According to him, the interesting question is not conceptual but empirical: whether or not other indicators besides income provide additional information in assessing development performance. According to him, they do not. Another issue is the low quality of the data for each of the components.⁸⁶⁷ He concludes that the HDI is conceptually weak and empirically unsound. It is not comparable over time and space; his point is thus a matter of measurement errors and biases. He states that meaningful inferences about development cannot be made with its use and neither performance nor policy implications can be drawn from variations in the HDI.⁸⁶⁸ He thus disputes the main rationale for the introduction of the index and the additional value as opposed to income, thus, the concept (row 1). He is also critical about the quality of data, due to poor institutions (row 2).

Streeten⁸⁶⁹ has a more positive view, which also sheds light on the virtues of indices in general; thus he argues about the choice of an index number (row 4). He states that there is no single index that can capture the entire concept of human development, but concedes that indices are useful for focusing attention and simplifying the problem. Indices have a greater impact on the mind and draw public attention more powerfully than a complex system of many indicators combined with

⁸⁶⁴ Rao. 'Human Development Report 1990: Review and Assessment.' pp.1453-4.

⁸⁶⁵ Ibid. p. 1454.

⁸⁶⁶ Srinivasan. 'Human Development: A New Paradigm or Reinvention of the Wheel.'

⁸⁶⁷ Ibid. pp. 240-1.

⁸⁶⁸ Ibid. p. 241.

⁸⁶⁹ Streeten. 'Human Development: Means and Ends.'

discussion. He claims that their highest value is in demonstrating the inadequacies of other indices, such as GNP. He sums up eight arguments which show why averages of human indicators are less misleading than income per capita and then argues for the inclusion of life expectancy and literacy, as is done in the HDI. First, he claims that the distribution of literacy and life expectancy is much less skewed than that of income. Second, the average of these indices already gives an insight into distribution. Third, any upward move in a human indicator can be regarded as an improvement. Fourth, while growth in income can cause deprivation for some, increasing human indicators can be regarded as an improvement for all. Fifth, over-development can be shown by human indicators, while the negative effects of high incomes are not interpreted by focusing on income alone. Sixth, indicators measuring impact are preferable to indicators measuring inputs. Seventh, looking at world development gives a more cheerful picture than looking at the international income gaps. Eighth, for political reasons, simple indicators identifying important objectives are appealing.⁸⁷⁰

However, while he lists these arguments as eight in number, some appear twice. Streeten's first arguments about the distribution is about the aggregation of national data (row 4), which to him are not representative of the actual development of the people, since developing countries often have great inequalities. He further argues that including literacy and life expectancy in an index is preferable to GDP. Most of his arguments deal with whether the representational power of the HDI is greater than the GDP, which concerns the essence of the HDI and therefore deals with its concept (row 1). A few of his arguments are more questionable. For example, that there is general improvement when all components in the index increase is as doubtful as the statement that increasing income benefits all. This then should not to be taken as an argument that one is preferable to the other. Furthermore, his claim that international gaps look more 'cheerful' is not an argument; the issue at stake is of course whether it is a better reflection of reality. Finally, he argues that, for political interpretations, using income growth as an indicator is easier than a combined index such as the HDI.

Sagar and Najam⁸⁷¹ share the general philosophy of expanding the scope of development beyond a focus on national income, but they are critical about its

⁸⁷⁰ Ibid. pp. 235-6.

⁸⁷¹ Sagar and Najam. 'The Human Development Index: A Critical Review.'

translation into an index (row 4). They find flaws in the process, the assumptions and the aspects ignored.⁸⁷² They even propose multiplication instead of an averaging of the HDI components. This would treat each dimension as essential and control the trade-offs between them.⁸⁷³ Also, they urge that the standard-of-living dimension should be changed since it does not currently give a realistic view. They use the example that Mexico and Switzerland are almost equal in outcomes, which is obviously absurd. Third, they urge that the inequality issue should be taken into account. Where early versions of the *Report* argue for the improvement of the data and their use, later versions have been quiet about the effort to ensure this.

Ranking and alternative construction

Morse⁸⁷⁴ and Gormely⁸⁷⁵ discuss the fact that the list makes a ranking (row 5). Morse argues that ranking countries causes attention to shift to comparisons between them and to moving up or down the lists, instead of development itself and what needs to be done in order to improve development. Morse also shows that the ranking itself is subject to movements which are more influenced by the measurement and quality of data than by the actual situation in the countries. It is not the most important issue to be leading the charts, to be 17th instead of 18th and to be placed above a neighbouring country. But Morse claims that the press interprets the listing like this.⁸⁷⁶

Gormely⁸⁷⁷ also discusses the ranking and disagrees with the way in which income is measured. He disagrees with the threshold levels taken by the HDI, in particular when this implies that higher-income countries can hardly develop once they have reached the threshold income level of \$ 5120.⁸⁷⁸ This deals with the way that the income element is normalised (row 4).

Acharya and Wall⁸⁷⁹ share this opinion. They also discuss the treatment of the elements, the implicit value judgments and the manipulations of data in the HDI.

⁸⁷² Ibid. p. 251.

⁸⁷³ Ibid. p. 263.

⁸⁷⁴ Morse. 'For Better or for Worse, Till the Human Development Index Do Us Part?.'

⁸⁷⁵ Patrick J. Gormely. 'The Human Development Index in 1994: Impact of Income on Country Rank,' *Journal of Economic and Social Measurement* 21 (1995).

⁸⁷⁶ Morse. 'For Better or for Worse, Till the Human Development Index Do Us Part?.'

⁸⁷⁷ Gormely. 'The Human Development Index in 1994: Impact of Income on Country Rank.'

⁸⁷⁸ Ibid. p.263.

⁸⁷⁹ Arnab Acharya and Howard J. Wall. 'An Evaluation of the United Nations' Human Development Index,' *Journal of Economic and Social Measurement* 20 (1994).

They criticise the treatment whereby the higher the increases in income, the less important they are, while increases in life expectancy and literacy are assigned constant importance.⁸⁸⁰ They criticise in addition the choice of the average poverty level of nine industrial countries as the maximum value for income. They provide alternatives, as does Mazumdar.⁸⁸¹ She questions the construction (row 4) by proposing a new estimate which makes the gap between the rich and poor countries wider than is shown by the HDI. According to her, this modification improves the technical quality for cross-country as well as temporal comparisons of human development.⁸⁸²

Quality of data

Apart from the construction, the inputs are crucial for the outcomes of an index. Obviously, the reliability of the data is essential for reliable outcomes. Since it is a global index, data should come from all the countries involved. Because there are few countries with well-developed statistical systems, the UNDP and the World Bank have been working on improvements in statistical systems and on the internet actively pursue reliable data to improve statistical systems. National expertise or cooperation of governments or central banks is necessary to get the required data. Morse states that the dependence on good quality national data is easily forgotten when scanning through the list of indexes.⁸⁸³ Murray⁸⁸⁴ (1991) and Loup et al.⁸⁸⁵ also criticise the quality of data on which the HDI is based (row 2).

Even though there are many more reactions, this selection shows that the critiques address different parts of the HDI. As seen in Figure 5-8, the concept has been questioned twice, the institutions once, data three times, the construction seven times and the ranking twice. The more a critique is made does not necessarily imply its greater importance, but it is clearly important that the construction of the HDI has been most often debated.

⁸⁸⁰ Ibid. p. 57.

⁸⁸¹ Krishna Mazumdar. 'A New Approach to Human Development Index,' *Review of Social Economy* LXI, no. 4 (2003).

⁸⁸² Ibid.

⁸⁸³ Morse. 'For Better or for Worse, Till the Human Development Index Do Us Part?.' p. 285.

⁸⁸⁴ Christopher J.L. Murray. 'Development Data Constraints and the Human Development Index,' *UNRISD Discussion Paper* No.25 (1991).

⁸⁸⁵ Jacques Loup, David Naudet, and Développement et insertion internationale., 'The State of Human Development Data and Statistical Building in Developing Countries,' *Human Development Report Office Occasional Paper*, Accessed 17 September 2011.

The concept itself can be questioned, but this is more a matter of opinion. The quality of the data can only indirectly be improved by developing institutions for collecting them. However, investigators can directly influence the choices made in the process of construction and in the presentation of the results. The literature discussed above clearly shows the interventions in the production process, but it also shows how the HDI is used for analysing the measures and their meaning. This debate is initiated and acknowledged by the UNDP which has for example responded to some of the critiques in its updates and activities on data improvement.

As well as initiating and facilitating the debate, the UNDP actively responded to the critiques. The UNDP gave Sudhir Anand and Amartya Sen the facilities to write an occasional paper reflecting on the critiques.⁸⁸⁶ As noted in Section 5.2.4.1, the HDI changed in 1992, 1994 and 1997 and in 2008. Relating to the rows in Figure 5-8, the concept and the presentation have remained the same, but the UNDP has made an effort to improve the national statistical systems by offering support from the UNDP and the local offices. The inputs have improved accordingly, as more and better data became available. For the calculation, the normalisation has changed in subsequent years after the first production, as has the equation. The weighting has remained the same, although this was acknowledged as owing to the lack of a satisfying alternative way of weighting the elements.

Thus, the academic users of both HDI and dollar-a-day differed, as did the way the UNDP and World Bank related to the critiques. As the HDI was a clear innovative approach to combine different elements of development into one index, the measure inspired many academics to provide their reflections on and technical approach to it and to this day technical responses are made on the way in which to measure the weights to attribute to the different elements. In addition, the HDI has been used for background facts, correlation with other variables and further research, on whether to suggest better measurement, better ways of incorporating the elements and which other features to include. The UNDP has responded actively by updating the HDI and creating different measures to include gender, poverty indices separated for development and developed countries (as discussed in Section 5.2.4). In addition, the new measure is used to provide inputs for other models and measurements, such

⁸⁸⁶ Anand and Sen. 'Human Development Index: Methodology and Measurement.'

as those for historical articles such as the one by Nick Crafts, who has used the HDI in his historical perspective on globalisation and economic growth.⁸⁸⁷

5.5.2.3 Ownership and nature of the organisations

The World Bank can be seen to retain ownership of its measure, while in contrast the UNDP has shared the debate and opened up various themes to its users, thereby partly giving up full ownership or control of the journey of the measure.

The dollar-a-day was introduced in an academic article and was produced and distributed from the top downwards. The production of the WDR is also top down, since it focuses on providing a synthesis of the existing work. The Reports build on the literature, mostly economic, and see current developments from an economic perspective, following economic conventions in the writing. The data used are already present in the databases and are brought together to be presented as the global perspective. Similarly, with the production of the dollar-a-day, the authors gather and synthesise data to produce the dollar-a-day measure, which they then use to provide data on the number of the poor and a country's proportion of poor people.

With the increased availability of online access and technology, the World Bank has employed similar distribution techniques to those of the UNDP. The World Bank has disseminated its products by supplying the users with data and programmes to use its results interactively. 'PovcalNet'⁸⁸⁸ is the 'Online Poverty Analysis Tool' which allows the different data to be used for research or interest. The World Bank facilitates and encourages the use of its products, as is explained on the main portal: '*PovcalNet* is an interactive computational tool that allows you to replicate the calculations made by the World Bank's researchers in estimating the extent of absolute poverty in the world, including the \$1 a day poverty measures, as published in the background papers by Chen and Ravallion and in the 2007 World Development Indicators.'⁸⁸⁹

The World Bank has further embraced the dispersal of its data, possibly inspired by the UNDP and the attention it gets from reaching out. On 20 April

⁸⁸⁷ Nick Crafts. 'Globalisation and Economic Growth: A Historical Perspective,' *The World Economy* 27 (2004).

⁸⁸⁸ Worldbank website facilitates using the data and research and offers additional software: *World Bank Website. Povcalnet. An Online Poverty Analysis Tool* (Accessed 18 September 2011).

⁸⁸⁹ Ibid.

2010,⁸⁹⁰ the World Bank opened access to more than 2,000 financial, business, health, economic and human development statistics on a new portal.⁸⁹¹ Taking into account the popularity and increased public use of smart phones an iPhone application is offered for access to and use of the data.⁸⁹² It has proven successful:

The World Bank Open Data Initiative launched 18 months ago. It's been a hit - every day, 15,000 visitors from across the world enjoy free access to over 1,200 carefully curated indicators via the web, our apps and APIs.⁸⁹³

Interestingly, while the World Bank has been clearly involved with distributing the numbers, they have not invited user feedback; their engagement with users adopts a top-down approach. It has not monitored the use of the website or feedback mechanism of the users.⁸⁹⁴ This is revealing, not only for the way in which the producers engage with the distribution, but also for the production and engagement with users, which can all be characterised as top-down.

The reactions to the dollar-a-day can be seen as activist-dominated and the World Bank authors replied to aggressive critiques in a defensive manner. This can be seen in the lively online debate regarding the critique ‘How *not* to count the poor’ written by Sanjay Reddy and Thomas Pogge, who started their attack on the dollar-a-day in 2001. The documents of the critique reached as far as version 6.2.⁸⁹⁵ Martin Ravallion’s response in April 2008⁸⁹⁶ has also been available online, as well as the reply to this document. The debate continued online between 2002 and 2008 before it was published in the book *Debates on the Measurement of Global Poverty*,⁸⁹⁷ making the debate part of the formal academic discourse.

Interestingly, Ravallion acknowledges that the use of the measure in the field is limited: ‘the vast bulk of the Bank’s analytic and operational work on poverty does not use the “\$1-a-day” line and with good reason.’⁸⁹⁸ However, he also defends the measure and engages with the criticisms. The following examples give a flavour of the sharp tone of the debate. Referring to the criticism of ‘methodological poverty

⁸⁹⁰ World Bank Website. *News & Broadcast. World Bank Frees up Development Data* (Accessed 18 September 2011).

⁸⁹¹ World Bank Website. *World Bank Live. The Future of Open Data* (Accessed 19 September 2011).

⁸⁹² World Bank Website. *Datafinder for Iphone* (Accessed 18 September 2011).

⁸⁹³ World Bank Website. *World Bank Live. The Future of Open Data*.

⁸⁹⁴ Interview I held at World Bank in Washington, D.C. on 14 June 2007.

⁸⁹⁵ Social Analysis Website. *How Not to Count the Poor. Version 6.2* (Accessed 18 September 2011).

⁸⁹⁶ Ravallion, Martin. ‘How Not to Count the Poor? A Reply to Reddy and Pogge’ *Online Edition*.

⁸⁹⁷ Sudhir Anand, Paul Segal, and Joseph E. Stiglitz. *Debates on the Measurement of Global Poverty* (Oxford: Oxford University Press, 2010).

⁸⁹⁸ *Ibid.* p. 88.

revision,' Ravallion defends: 'Reddy and Pogge chastise us for making such changes. A knowledgeable external consumer of these numbers would surely be far more inclined to criticize us if we had not made these revisions.'⁸⁹⁹ In his conclusion he states that

Reddy and Pogge have oversimplified the problem of measuring poverty in the world. That is not to deny that there are problems galore in the data and methods of measuring poverty – problems that the Bank has taken the lead in exposing and addressing. There is still much more to do. While I have serious doubts about their proposed alternative method, the attention that Reddy and Pogge have given this issue is welcome.⁹⁰⁰

Although the attention aroused by the online version of the critique is still 'welcome', the published version is less inviting, with a revised conclusion:

Reddy and Pogge begin their chapter in this volume as follows: "How many poor people are there in the world? This simple question is surprisingly difficult to answer at present". I would argue instead that there is nothing simple about the question and nothing surprising about how difficult it is to answer it. Reddy and Pogge have oversimplified the problem of measuring poverty in the world, have greatly exaggerated the supposed faults in the Bank's methods and their proposed alternative method does not take us very far in the goal of setting an international poverty line.⁹⁰¹

The World Bank's engagement with the critiques, in short, has not been very inviting and contrasts with the UNDP's interaction with its users. The nature of the institution and the existing relationships between the World Bank and the countries concerned can be seen as an explanation of the differences in the engagement between producers and users. As a lending institution and with national governments as clients, its power dynamics have been different. Moreover, the measure was not matched by an agenda of changing the way to think about development. There was less need to facilitate a platform for and emphasis on creating new networks to share and create an impact with the measure in the case of the dollar-a-day.

The indicators and the dollar-a-day have been widely used, for example, by journalists who use the data as background information on the developing world. The absolute poverty measure became the main focus of the first of the Millennium Development Goals, which is to eradicate extreme poverty and hunger. The first

⁸⁹⁹ Remarkably Ravallion considers Reddy and Posse as consumers of the numbers. *Ravallion, Martin. 'How Not to Count the Poor? A Reply to Reddy and Pogge' Online Edition.* p. 5.

⁹⁰⁰ *ibid.* p. 6.

⁹⁰¹ Anand, Segal, and Stiglitz. *Debates on the Measurement of Global Poverty.* p. 97.

target is to halve the proportion of people living on less than a dollar-a-day.⁹⁰² Interestingly, the UN and the UNDP are in charge of the MDG and they use the dollar-a-day rather than their own development measures, such as the HDI. The reason, it is said, has been the large bureaucracy of the UN and the failure of the HDI to penetrate within the UN's sister organisations, even though the HDI has been successfully marketed outside the UN.⁹⁰³

These differences between the HDR and WDR may partly be explained by the nature of organisation. That the World Bank is a bank, employing mostly economists, whereas the UNDP as a body within the UN, already involves more themes than economic ones alone, such as international diplomacy and peace keeping. The UN can be seen as a more open institution in general and the UNDP is more involved with different bodies within society than the World Bank has been. Alliances are sought with politicians; for example, the UNDP has asked politicians and leaders to launch national Reports. In addition, the HDI was set up explicitly to start a debate and the UNDP has engaged with the criticisms which the subsequent debate generated in the following Reports and additional background documents. Furthermore, the Reports are not stand-alone publications but are supported and supplemented by several other activities. The Reports are instrumental in gathering attention through press releases. In addition, conferences are organised to raise awareness and it very actively researches on the ground on improving familiarity with the HDI and Human Development paradigm. Moreover, for those already active and interested in human development, Oxford University has held the Human Development Course every other year and the *Human Development Journal* has investigated development themes. The UNDP has also made financial contributions to allow international visitors to attend meetings.⁹⁰⁴ The UNDP has aimed to approach development from the bottom up, even though it does not always do so in its work. The HDI itself, for example, is not produced bottom-up, as it still starts with

⁹⁰² *United Nations Millenium Development Goals Website. Goal 1: Eradicate Extreme Poverty & Hunger* (Accessed 17 September 2011).

⁹⁰³ Points raised at Workshop organised by the Von Hügel Institute/Capability and Sustainability Network, University of Cambridge, in collaboration with the United Nations Development Programme (UNDP) / Human Development Report Office (HDRO). 28-29 January 2010. Cambridge, UK.

⁹⁰⁴ An example is the provision of travel support to international workshops such as the Workshop organised by the Von Hügel Institute/Capability and Sustainability Network, University of Cambridge, in collaboration with the United Nations Development Programme (UNDP) / Human Development Report Office (HDRO). 28-29 January 2010. Cambridge, UK.

statistical data which were gathered from international databases. Moreover, while people are supposed to be the focus of development, they do not feature in the Report, in contrast to the World Bank's project *Voices of the Poor*, in which three books were published with 'the experiences of over 60,000 poor women and men.'⁹⁰⁵ Nevertheless, the National Reports have allowed for direct engagement with academics, UNDP staff and the local governments and also allow for more creative approaches to human development.

The two institutions have different perspectives on policy interventions and engagements, which inform the different aims for the Reports and the measures. While the World Bank economists can be viewed as favouring policy towards economics, the UN has a broader perspective and agenda. The UNDP and the HDRs have a clear incentive and agenda to further the Human Development approach. This makes the Report and indeed the measure instrumental in a larger agenda, rather than a representation of the current state of economic development, as the World Bank seeks to be. The HDI and Reports explicitly seek to create an impact, to affect the lives of people in poverty. The WDR aims to share a global perspective on development themes. The policy implications remain on the growth path and do not focus on developing other areas which might not benefit growth directly, as the changes in poverty numbers reflect. While the 2008 article changing the poverty measure (see below) reports more people in poverty, it still argues that the efforts to alleviate poverty are effective. The changes in poverty outcomes are mostly influenced by the economic growth in India and China, whereas in effect, while growth was occurring, the situation of the poor need not necessarily have changed accordingly.

Facilitated by the top-down approach, the World Bank still controls the ownership of the dollar-a-day measure.⁹⁰⁶ This can be seen in the way that both the dollar-a-day was initially introduced and how it was changed in 2008. In both cases, the words used were that the authors 'propose a methodology'⁹⁰⁷ and then refer to the proposed new international poverty line.⁹⁰⁸ Even though they write 'propose,' what they are doing is imposing the measure, for the users are not directly addressed and

⁹⁰⁵ *World Bank Website. Voices of the Poor*. See Section 1.7.

⁹⁰⁶ In contrast to the other producers of poverty measures studied in the present thesis.

⁹⁰⁷ Ravallion et al. 'Quantifying the Magnitude and Severity of Absolute Poverty in the Developing World in the Mid-1980s. Background Paper for the 1990 World Development Report.' p. 345.

⁹⁰⁸ Martin Ravallion, Shaohua Chen, and Prem Sangraula. 'Dollar a Day Revisited,' *The World Bank Development Research Group. Policy Research Working Paper* 4620 (2008). p.4.

nor is the acceptance doubted: the World Bank simply goes on to use the measure and the new poverty line is used for the Millennium Development Goals, referred to as the 'international poverty line' and those living in extreme poverty.⁹⁰⁹

The main impetus for the change in 2008 is the updated PPP measures and in the light of the new data the authors investigate the international poverty line and further expanded and updated data sources and research methods. In May 2008 the World Bank published a policy research working paper 'Dollar-a-day revisited'⁹¹⁰ by Martin Ravallion, Shaohua Chen and Prem Sangraula.⁹¹¹ The paper used new data for a similar exercise as the one of 1990 and proposed \$1.25 as the new international poverty line.⁹¹² The methodology remained the same, but the data sources had been improved and expanded. In keeping with the World Bank's general approach, no response was invited to the new proposed line of \$1.25. Interestingly, the new measure still has a sense of a rounded number (rather than \$1.32 for example) but does not have the same 'ring' to it as the article in *The Economist* (see below) comments. While the academic users critique the methods, the media have used the measures for background information when stating general facts underlying their stories. The dollar-a-day features more prominently, for example, on BBC radio, which used the dollar-a-day notion as the basis for a documentary series investigating what it is like to live on a dollar-a-day in different developing countries, such as Kenya and Peru.⁹¹³ With the Millennium Development Goals gaining attention in the developing world both in the media and for development organisations, the dollar-a-day measure was used then as well.

In addition, the 2008 change to \$1.25 made some headlines. For example, the *Hindu Business Line* describes the change to the dollar-a-day measure in relation to the HDI and to the Asian Poverty Line, which takes into account the sensitivity of poverty estimates in relation to PPP. This article thus directly uses the different

⁹⁰⁹ United Nations. *The Millennium Development Goals Report 2010* (United Nations Department of Economic and Social Affairs, 2010). pp. 3,4 and 6.

⁹¹⁰ Ravallion, Chen, and Sangraula. 'Dollar a Day Revisited.'

⁹¹¹ All producers were employed by the World Bank and familiar with the concepts and production process of the poverty numbers. Ravallion, director of the Development Research Group of the World Bank, was the producer in 1990 as well. New authors were Shaohua Chen, Senior Statistician in the Development Economics Research Group of the World Bank and Prem Sangraula, 'Economist in the Development Research Group and he updates and maintains the global poverty database for generating \$1/day, \$2/day Bank's official poverty estimates.' *World Bank Website. Research. Author Profile Shaohua Chen* (Accessed 17 September 2011). *World Bank Website. Research. Author Profile Prem Sangraula* (Accessed 17 September 2011).

⁹¹² Ravallion, Chen, and Sangraula. 'Dollar a Day Revisited.' p. 23.

⁹¹³ *BBC Radio World Service. A Dollar a Day* (Accessed 17 September 2011).

poverty measures, albeit in more a complementary than a competitive manner. The article takes the south Indian state Kerala to exemplify high human development yet a low GNP and examines the development of poverty numbers from the World Bank.⁹¹⁴

The change in 2008 was also covered by *The Economist*. The article offers an example in which its ownership, method and use were noted. The *Economist* reports on the change, describing the World Bank as proposing to update the previous poverty line. *The Economist* writes that they ‘return to first principles, repeating the exercise done two decades ago using the improved data.’ The journal makes strong claims about the supposed interest and use of the measure.

Give or take a dime or two, it matters little where a poverty line is drawn. Like a line in the sand, an absolute poverty standard shows whether the economic tide is moving in or out. It does not matter too much where on the beach it is drawn.

For practical purposes, policymakers will always care more about their own national poverty lines than the bank’s global standard. The dollar-a-day line is more of a campaigning tool than a guide to policy. And as a slogan, \$1.25 just doesn’t have the same ring to it. A better option might be to reset the poverty line at \$1 in a 2005 PPP, which would line up reasonably well with at least ten countries in the authors’ sample. In adding a quarter to the dollar-a-day poverty line, the researchers may cut its popular appeal by half.⁹¹⁵

This observation highlights several points on the use of the measure. First, there is scepticism about the importance of the numbers chosen, whether it matters where to draw the line. For this statement to hold, it would need to be more specific about the importance of the measure for what and to whom. This then turns out to be a question of the user domain - who uses the measure? For individuals the measure may not impact directly on their lives, but, through international efforts, policy can make a difference. Moreover, a measure can help to identify and compare different states of development.

A second point comes from whether the global focus aids national policy-makers; the use of the global comparisons of numbers for national policy is not clear, since it offers no insights into ways to alleviate poverty at a national level. Moreover,

⁹¹⁴ *Hindu Business Line: Living on a Dollar-a-Day by K.G. Kumar. 22 September 2008* (Accessed 19 September 2011).

⁹¹⁵ *The Economist*, 'On the Poverty Line: Has “a Dollar a Day” Had Its Day?,' 24 May 2008.

even on an international level the measure does not directly guide policy decisions. For example, the first Millennium goal is to halve poverty, but the numbers themselves do not reveal how.

A third point in the article relates to a different use of the measure. International poverty measures do have an advocacy role and the dollar-a-day has been a successful slogan. With the recent change to \$1.25 *The Economist* questions whether the measure will have the 'same ring to it.' The dollar-a-day became known and used very quickly because of the 'ring to it' but this quality is in question now that one-point-twenty-five-dollars-a-day is clearly not as catchy.

In conclusion, the production, distribution and use of the dollar-a-day offer similarities and contrast to the HDI and the effect of competition has been clearly visible. The two global institutions, UNDP and the World Bank are different, yet operate within the same development field. While the production of the measures occurred at the same time in 1990, the measures themselves are different, as are the aims, ownership, distribution and use both by the producing institutions themselves and by the other users in academia, development organisations and the media.

5.6 Conclusion

This chapter has analysed the production domain, users and engagement with the users of the HDI and contrasted them with the World Bank's dollar-a-day to answer the questions: 'How successful has the HDI been and how has the HDI competed with the dollar-a-day?'

Within the international development field, these two organisations have competed with their information goods, their quantifications of development and poverty. In 1990 the UNDP entered the market with the HDI. The production of the HDI saw the measure emerge as an index to compete with the economic growth-focused measure of GDP per capita growth and aimed to place people at the centre of development. The UNDP has been active in allowing the producers to develop the measure and interact with the suppliers of data; it has fostered the production process and product development over the years since the first production. Within the production domain, the World Bank had been publishing the *World Development Report* since 1978, but in 1990 published the article which introduced the dollar-a-day, arguably a competitor for development information. The user domain demonstrates that the measures are used on different levels and for different

purposes. The way that the UNDP and World Bank have engaged with the users is in contrast, with the UNDP allowing bottom-up interaction while the World Bank retained ownership of the measure and propagated the measure and its applications from the top down. The comparison with the World Bank leads to four conclusions about the success of the HDI.

First, the aims of the producers at the UNDP were different from those at other statistical organisations. The UNDP aimed to inspire change. This makes the HDI different from the dollar-a-day and other statistics, which focus on capturing a certain concept in numbers, not necessarily envisioning a political use for the statistics. This aim for change also informs the way in which the UNDP emphasised the distribution of the data. Although this is also increasingly the concern of other statistical organisations, including the World Bank, the aims and opportunities for the UNDP were unusual because it could rely on the global nature of the organisation and its networks. Resource allocation, political aims and prestige became attached to the HDI, partly because the index was widely dispersed and the ranking lists created an element of competition.

Second, the way that the HDI was set up as a quantity was essential for its success. The production of the HDI created a measurable fact by being quantified and the numerical nature of the HDI helped its travels. While attention on education and health has been present within the development field, the HDI provided a number which allowed for comparison and benchmarking. Although the quantification and production process have been criticised, they have produced a number on human development which previously had not existed. The HDI was therefore successful in offering a quantity, a numerical fact of human development as opposed to a verbal message. This was due to the attempts of its producers to create a competitor to the GDP per capita. The global production process was essential for the provision of the HDI as a competing quantity.

Third, the product was not one product in isolation; instead, it was a package of goods, which in combination proved mutually promoting and a key to success. This combination of concept, numbers and products has been mutually beneficial in terms of getting attention and increasing the use of the products. The HDI has been successful because of the emphasis placed by the producers on the distribution and marketing of their products, which partly occurred with and through these different products. The UNDP has offered the data and information globally, in non-technical

terms and through various channels. The ranking lists, Reports, press releases and internet stimulated the media coverage and in addition the national Reports addressed local interests and concerns more directly. The distribution of the HDI actually involved a larger package of goods and services which included not only the index itself, but also the complementary products such as the HDRs and website services. These have encouraged the products to disperse, which has been successful due to the distribution channels chosen, as well as the format requirements which demand local interaction with the UNDP.

Fourth, because the HDI is a composite index and education, health and standard of living require different policy decisions, the HDI does not offer direct policy use. However, through the comparative and ranking device, the HDI is used by the public and the media, acting as an effective advocate to gather attention to development topics so as to get them on the political agenda. The user groups can be identified on international, national and local levels, while the poor themselves are the aimed eventual beneficiaries but not the users of the HDI. There is some tension between the global product and local applicability which makes the local use of the global HDI problematic, in particular considering the aim by the HDI of serving as an advocacy tool for policy purposes. In this regard the National Reports have been effective in connecting the Human Development approach to local circumstances.

While the intrinsic features of the HDI have been criticised in the academic domain, the UNDP has actively engaged with the critiques and has worked on creating networks and alliances. In a way, its use by academics was actually enhanced by the caveats on the theoretical basis of the HDI. The theoretical basis, the UNDP's willingness to open the debate and the academic mentors of the HDI actually make the HDI successful in academia in terms of attracting attention and inspiring new research and debates, which have resulted in such things as the academic *Journal of Human Development*. The HDI through new research and intellectual debates aroused greater interest in the concept of human development and its improvements.

Moreover, the UNDP, with its ties to the academic community and the media, created the networks which allowed the HDI to travel well. The alliances on the local level and interaction with local governments, activists and academics have also been important for network building.

The user groups and their aims have determined whether the HDI and the additional products have been used effectively. The product can be seen to have travelled well, despite criticism on the concept and its measurement. At the same time, the simplicity of the HDI, in taking a composite index of three elements of development which people can relate to, makes the HDI effective in the public and political domains. The globalisation of the HDI has aided its use so that it not only functions as an end product, but also has value during its production process because the UNDP formats ensure that the local users engage with the human development issues, which without the HDI would not have been possible.

6 Reflecting on poverty measures

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6.1 Poverty measures and the product approach

This thesis has investigated measurement and the role of numbers in their socio-economic contexts. The focus has been on poverty measures. Poverty has been a damaging problem for millions of people around the world. The capacity to understand what poverty is and what it means to live in poverty is influenced by poverty measurement. This is what defines, determines and channels attention to facets of poverty. Out of the many poverty measures and numbers, this thesis has investigated three case studies which included four significant and influential poverty measures, spread over both time and space, to understand how poverty measures have been produced, distributed and used. It has aimed to contribute to the literature on measuring social issues and a better understanding of both poverty measures and numbers and the way in which they are used to understand and reduce poverty.

Each chapter has contributed to the literature on the individual histories of the poverty measures. The three different case studies provided different accounts in terms of geographical scope, time frame, character and the institutional embedding and use of the measures. Moreover, in combination, the three case studies offer additional conclusions. This chapter discusses how poverty measures can be understood using the product approach, the concepts from the travelling facts project, and how they relate to three main themes: trust, politics and users as co-producers.⁹¹⁶ While these themes run throughout the entire thesis, they are here used to bring together the various topics contained within it, namely the production process, distribution, and competition.⁹¹⁷ The aim is to demonstrate how the product approach complements the different contributions from the literature discussed in Chapter 1 for the understanding of poverty measures.

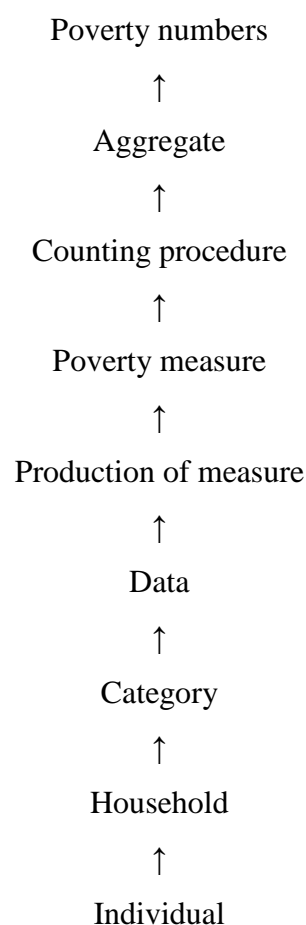
6.1.1 Production process: poverty from person to number

The product approach has offered an additional way to open up the black boxes and investigate the production process of poverty measures. The different producers have taken different approaches to capturing or representing poverty in a number. Figure 6-1 demonstrates the production process: how poverty measurement takes poverty from the individual to a number. On all levels – political, moral and defining – decisions are taken.

⁹¹⁶ See Sections 6.2, 6.3 and 6.4 respectively.

⁹¹⁷ See Sections 6.1.1, 6.1.2 and 6.1.3 respectively.

Figure 6-1 Poverty measurement from individual to poverty numbers



At the bottom of Figure 6-1 is the individual who may be poor. When a person fails to meet basic needs in order to live or function properly, poverty manifests itself. This is where poverty is felt and where poverty limits life. The quantification of poverty dissociates the observer from this experience of poverty by analysis, where the focus is not on the hardship felt on a personal level, but on poverty through numbers.

The household level is often taken as the unit of analysis for research because individuals mostly share budgets with a partner or family with whom they live. Different poverty measures take different forms: Booth surveyed individuals within their households, Orshansky took households and families as the focus, while the HDI uses country data and the dollar-a-day used country data but translated it to a dollar per day per person in every country.

The next level is where the households are categorised according to various similarities. This is a hybrid level, as the same household can simultaneously be part

of different categories. Examples are the category of those residing on farms or of those who have three children. In addition, the information which differentiates them from each other can be combined with other information. For example, the Census bureau data were combined with Orshansky's poverty lines to identify groups which are more prone to fall beneath the poverty thresholds. The categories act as a template which can be fitted to match the poverty data viewed according to the characteristics which coincide with demographic features. For example, categories can yield information about whether the household is led by a female or male, whether they are single or employed and what race they have. This information can subsequently be used to design poverty interventions such as employment programmes or child benefits.

There are different kinds of raw material or data. On the one hand, there is the data that yield the poverty measure, the information for the US poverty thresholds from the food plans, the information from the food survey and additional information that becomes part of the method of deriving the poverty measures. On the other, the empirical data are the items of collected raw material to be used for the measure to produce the numbers. This makes it easier to compare the actual status of the individuals or households with the poverty line so as to assess whether they fall beneath it or not. For the US poverty thresholds, this work is done by the Census Bureau, which provides the data used to assess the poverty. The poverty measure has become part of the survey questions in 1964; this demonstrates the organic procedure of the measurement.⁹¹⁸

The development of the poverty measure entails its production, thus, the method used to establish the poverty measure. It involves the levels and decisions on which elements to take into account, as visualised for the HDI in Figure 5-1. This process from world to number can also be applied to Booth's measurement and the dollar-a-day and more generally to all numerical measurement. This production of the poverty measure encompasses the selection of elements to include, how the data are combined and how the poverty line is established. It moves the attention from poverty as it is experienced (the lowest level) to capturing the concept of poverty by a number, based on a poverty measure which establishes facts on who is counted as poor or not.

⁹¹⁸ This is in contrast to the UNDP which uses the data already supplied by the UN and national governments, which is not affected by the HDI (See chapter 5).

Next, the counting procedure uses the poverty measure to compare to the actual households. The poverty measure in a line becomes the income level that establishes a cut-off point often relating to the income level of the household. This can then be used to assess someone as poor or not and hereby this counting procedure can produce the aggregates, thus the poverty numbers that are time and region bound.

Poverty numbers can be produced for different geographical levels. This can be to create a perspective on poverty in a city (Booth), country (US), or world (HDI and dollar-a-day). The 'aggregate' in Figure 1-1 on poverty measurement implies the actual poverty numbers, are the result of using the poverty measure in the production process from individual to number.

The different cases have demonstrated that the production is not always as linear as the Figure 6-1 depicts. In the case of Booth's poverty measurement he started collecting data from the individual level and worked his way up towards aggregate poverty numbers but there was continuous reiteration between the levels. He carefully worked his way through each stage, working with impressions on households, creating different categories and classes to organise and produce the data. The actual poverty measure came out of the iterative process between data collection and method building, and he used double checking methods to secure the most accurate counting procedure, that would then allow him to provide aggregate poverty numbers.

The product approach investigated how the poverty numbers were produced and in doing so revealed different kinds of innovation. The case of Booth's poverty measurement illustrates the case of his invention of poverty measurement through which he built up from the person to the number (see Figure 6-1) to produce the poverty number and his additional innovations through his use of a variety of sources and methods (see Chapter 3).

Orshansky established her method differently, by creating a 'typical family' based on survey and other data sources, which would not directly start at different individuals, but would still take the household level as the main unit. Her innovations were to create different categories of household depending on their characteristics and thereby she differentiated the measure into different thresholds.

The product approach has shed light on the production process actually producing several products including the poverty measure and the poverty

numbers.⁹¹⁹ Booth's case demonstrated that the poverty numbers are rarely the only product; the production process often yields packages of related products which include maps, reports, books, and ranking lists. The HDI as a development measure was only one of the products within the human development package, which included ranking lists, global, national and local reports, networks, and internet platforms. In addition to the finding that poverty measures come in packages, the notion of packaging influences how they travel, as the next section discusses.

6.1.2 From numbers to use: travelling facts and the product approach

While the technical features of the measures define the production of numbers, this thesis suggested that they do not necessarily determine where poverty measures and numbers go after their production. The measures move between production and user domains. The product approach has illustrated this with its focus on the distribution and marketing of poverty measures, which are concepts usually not related to statistical and social indicators. Within this move from the production numbers to their use, the notions from the travelling facts agenda⁹²⁰ and especially those of company and fruitfulness have been useful. This can be illustrated according to the cases of the HDI and Orshansky's thresholds, two cases of poverty measures that, for different reasons, were very successful travellers.

Morgan⁹²¹ offers the insight that facts travel well with companions of packages, labels and chaperones. The company of poverty measures and numbers has been essential in the way they have travelled. The production often already included labelling and packaging of the facts, and the product approach revealed that a poverty measure rarely comes as one product and that it often comes with a package of products. Moreover, these are further packaged and transported by different distribution and marketing methods as the product approach suggested.

The HDI was packaged into a ranking list which became the product by which the HDI was used most and travelled best and it was chaperoned by three internationally renowned professors which increased its credibility. Moreover, the HDI has been able to use the network already in use by the UNDP. In addition, the success of the HDI further increased the production and use of the package of

⁹¹⁹ See Chapter 2.

⁹²⁰ See Section 1.6.

⁹²¹ Howlett and Morgan. eds., *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*.

products expanding from global to national to local level human development products.

Moreover, the fruitfulness of travelling facts can be seen as attracting new users⁹²² and uses,⁹²³ for which demand is critical.⁹²⁴ The product approach explicitly focused on the market for poverty measures and numbers, and identified the different contexts in which the poverty measures and numbers were used. For the US thresholds the demand was instantly provoked by the War on Poverty but also by various uses within the political space (see Figure 6-2 in Section 6.3.2). The thresholds travelled instantly throughout the US government system to find various users that were not envisioned by the producers. The demand can be seen to almost have pulled the thresholds to various users even when the thresholds were not the most representational, or even practical for use.

The product approach has helped to demonstrate that the factors and actors which influence the poverty measure are not confined to the production domain, as people at the destinations of the facts interact with the measures and numbers, and use them for different purposes. Morgan's notion of fruitfulness suggests that when facts travel far and wide they can be seen to accumulate many different users and uses.⁹²⁵ For the Orshansky case the user side determined where the thresholds travelled, as there was an unmet demand for poverty measures in the US when the War on Poverty was declared. When the thresholds became used as the official US poverty measure it gained wide usage as decision tool for eligibility to welfare programs and in resource allocation to various policy programs. The different user groups employed the measures for different purposes and the measures travelled wide and far. These different uses made for a complexity within political space (see Figure 6-2) that did not allow for easy alterations in the US thresholds and allowed them to travel successfully. Despite the strong case for updating the thresholds established in the mid-1960s (a case put forward by many, including Orshansky herself) debates between different, primarily political, user groups have prevented this from happening. From a production point of view there may have been better products, but for the users the existing product served their needs, which meant that

⁹²² See Section 6.4.

⁹²³ See Section 6.5.

⁹²⁴ Morgan, 'Travelling Facts.' p.18.

⁹²⁵ Morgan, 'Travelling Facts.' p.12.

there was not enough demand for new products.⁹²⁶ The thresholds held their integrity and have continued to travel well, for a wide range of uses.

The character of facts influencing their travels⁹²⁷ has also been relevant for poverty measures. The quantitative nature of poverty measures makes them stand out from other sources of poverty information and allows them to obtain new functions in comparisons over time and space as well as in political functions⁹²⁸ to understand and act upon poverty. Moreover, the quantitative nature mattered for how they were trusted,⁹²⁹ and whether they were trusted enough for use, which implied the facilitation of travel.

6.1.3 Competition within the market

This thesis has integrated the product approach on poverty measures with the different conceptual views from the literature (see Chapter 1) and yielded insights on innovation, packages and packaging for distribution and the importance of demand and the user side. The product approach offered a new way of thinking about social measures and served as an organisational tool to analyse the case studies. It also brought out the notion of competition which other views on social indicators have not brought forward as such.

The HDI is a case where competition between the UNDP and the World Bank has been illustrated. The producers of the HDI had a clear aim for the human development approach and created a new measure to compete with GDP growth based measures. The UNDP used the distribution and marketing effectively to have the human development approach and the HDI reach its users and create new users. The interaction between the producers and the users for the UNDP can be contrasted with the World Bank who did not allow for co-construction of its dollar-a-day measure, while the UNDP allowed for active engagement of different user groups via various routes of distribution including internet platforms, networks and reports ranging from global to local editions, made in cooperation with local academics and governments. While the World Bank's dollar a day remained a 'supply led' measure, the HDI has been in co-construction with its users. The analogy with products inspired the notion of competition between measures and this thesis has illustrated

⁹²⁶ Similar to Manning's *n* that was not perfect yet successfully travelled for use, see Section 1.6.

⁹²⁷ See Morgan. 'Travelling Facts.'

⁹²⁸ See section 6.3.

⁹²⁹ See section 6.2.

the way the competition between these two institutions and measures and demonstrated how distribution and competition and user interaction matter as well as the initial production.

Orshanky's thresholds can be viewed in a contrasting light. Through the way the thresholds were produced within a governmental setting, the poverty thresholds can be seen to have travelled far and quickly throughout the entire US governmental system. They travelled so well that it became used for all government purposes and despite various attempts, co-production has proven difficult. Through the early adoption as the official US poverty measure by the government, this measure was shielded from competition and can be seen within a monopsony setting rather than a free market. The users have not been willing to allow successful competitors to enter the market.

Thus, the product approach can be seen to offer an additional view on poverty measures, which brings out the production process, integrates notions from the travelling facts agenda and illustrates how social indicators can be competing. Analysing how the poverty measures were produced, distributed and used suggested that poverty measures rarely came as a single product, but often as a package of products. Moreover, they travelled as a package: the main product that emerged for use turned out to be not simply a measure or number, as the case studies illustrated and as discussed in Section 6.2.2 below. <Deleted rest paragraph>

6.2 Trust

Inspired by Porter's book,⁹³⁰ Chapter 1 viewed trust and numbers in relation to scientific and social investigation within the public domain. The product approach broadens the scope to view the features of poverty measures as they relate to the sources of people's trust in numbers. The case studies demonstrated that a certain trust is needed in the domains of science, social investigation, government and international domains before they can be used. In addition, the focus of each chapter has suggested other factors of the trust given to measures, which show how the measures have gained enough status to become the main characters of the story.

⁹³⁰ Porter. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*.

6.2.1 Sources of trust in social and public domains

The case studies demonstrated different relations between ‘science’ and the social and public domains. Poverty measures and numbers have had origins which were not purely academic. They were developed by social science practitioners, who worked to produce them in the field, even though the connections to academia were close. For example, Booth entered a more academic career through his poverty measurement. The research for the dollar-a-day was first published in an academic article, by authors who already had academic credentials and worked for the World Bank. The HDI was produced by established economists working for different universities who became involved with the UNDP. Therefore the production of poverty measures cannot be seen in isolation within a scientific domain and the product approach assessed the production domains in a broader context than academia.

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The case studies highlighted that the main source of trust is not necessarily in the nature of the measure itself. The producers and circumstances in the production domain have played an essential role. Booth was an individual but gained trust by his systematic and thorough research and establishment of the poverty line and categories. The trust in the US thresholds can be related to the fact that they were developed within the government administration. Moreover, because they were detailed and operational they were soon used within the US government and gained official status because of their circumstances: the production was within a governmental institution and it coincided with the focus on the War on Poverty. The HDI and dollar-a-day were both initiated by academics and promoted by international institutions; they were trusted for use despite debates on the technical make-up of the HDI or the way in which the dollar-a-day altered over time. One of the contributions of the product approach in this regard is that it helps to clarify that trust was not necessarily, or even generally, located in the measure itself. Thus, the measure and numbers themselves need not be the main determinant of the trust awarded to the measure. The thesis also suggested that the use and acceptance of the measure often had more to do with issues beyond the production domain.

The case study on Booth showed that with his innovations he created trust in his poverty numbers as facts. At the time of Booth’s investigation there were no trustworthy poverty numbers. The age of positivism created a need to find a fact-like

poverty number so as to know what the state of poverty was and how many people were poor. The Booth case study demonstrated that, as an innovator in poverty measurement, Booth provided a variety of products which would come to be seen as trustworthy, largely because of his work in the production domain, where he developed a systematic, scientific way of investigating poverty. In contrast to the other case studies, which were institutionally embedded, Booth was unattached and unhindered as an individual without being part of any governmental or other interest group. Even though he had certain authority as a rich person and a philanthropist, his affiliations were not the main source of trust, or even of authority, as they were for the Orshansky, HDI and dollar-a-day case studies, where trust was at least partly a function of their institutional context. In contrast, Booth's poverty measurement on their own created trust in Booth, his methods and his additional products. They impressed members of the Royal Statistical Society by their thoroughness and work and he subsequently became their President thus further enhancing his trustworthiness, as well as that of his work. The number and quantitative character of his work created the facts and in addition would supply a range of products advancing the measures and knowledge of poverty.

Nevertheless, trust in the actual poverty measure and its production are not always essential for creating trust in the outcomes or having impact. As the US thresholds and HDI case studies demonstrated, the production domain did not supply the sole determinants of the success of the poverty measure. In fact, despite being heavily debated, the trust obtained in the production domain was not crucial to the success of these last two measures.⁹³¹ However, as the increasing availability and use of poverty measures demonstrate, there is still a large demand for poverty numbers compared to competing sources of poverty information, such as personal observation or judgement. The measures and numbers here provide distance and an air of objectivity, as Porter suggests. Regardless of whether this objective appeal is justified, it serves the purpose of increasing the usefulness of poverty measures and numbers, as the next section discusses.

⁹³¹ Similar to Manning's n, discussed in Section 1.6.

6.2.2 Usefulness and the market for poverty measures

The project 'How well do facts travel?' and the agenda of 'useful and reliable knowledge'⁹³² offer the view that facts and numbers can offer information and their use demonstrates some degree of trust is given them. The case studies demonstrate that even though certain aspects were debated, the poverty measures were trusted enough to be used. Subsequently, the use of the measures increased the use of the numbers, further establishing the measure. Thus, trust and use reciprocally mutually strengthen the measures and numbers.

The facts which are trusted are multiple. Poverty measures create facts which are 'not just numbers,' in three ways. First, a poverty number is 'not just a detached number.' More broadly, any number cannot in itself be objective and free from judgment or decision. As seen in the conceptual chapter on the product approach,⁹³³ poverty measures are similar to economic products: they are influenced by producers' decisions in each phase. For example, the availability and quality of the raw materials and the facilities have to be taken into account. Therefore the number associated with a measure is never simply a detached number and each of the decisions in the production can attract criticism, for example, on the elements taken into account and the way that this has been done. This in turn is affected by the people who produce and use and invest in the poverty measures. Thus, any measure and number can be distrusted. However, trust is not the only reason for their use or impact, as the case studies showed.

Second, poverty is measured 'not just by one measure or number': there are different measures, such as Booth's poverty classifications, Orshansky's poverty thresholds per year, the World Bank poverty lines, whether \$1 per day, \$1.08 or \$1.25, and the HDI measure for development. These measures produce the actual poverty numbers: being the HDI for one country for one year, the number of people living under the poverty line in London, the proportion of poor people in the USA. In turn these numbers can be analysed over time (if the measurement has stayed the same) or over countries and levels of development, thus facilitating other calculations and numbers. Moreover, they can be compared to targets and evaluation purposes, even though the causality is much more complex than often assumed,

⁹³² Morgan. 'Travelling Facts.' pp. 10-11.

⁹³³ See Chapter 2.

which creates problems for this type of use. The format of the measure brings out different features to trust and use according to what they offer.

Third, the poverty measures do ‘not just generate numbers.’ As the product approach has revealed, they create a package of products, including a variety of forms of numbers and additional information and products, such as facts on causes, books, reports, national reports and research practices focusing on engagement with the field, internet platforms and professional networks. Together with, or because of, the other products in the package, the measures and numbers can create trust, become successful and create impact. For example, despite disagreement over the technical make-up of the index, the HDI has been very successful in gaining awareness, becoming used and competing with the dollar-a-day as a useful measure in the market.

By examining three case studies spread over a hundred years, this study has also shown the significance of time as a contextual factor. When Booth offered one of the first poverty measurements, the market for poverty information was in its infancy. Poverty had not been properly quantified and thus Booth in effect created the modern market for poverty measures. Over time the focus on numbers increased and the market for poverty measures grew. By the 1990s the approach to numbers was no longer the same as in the era of positivism. The marketplace could not be dominated by a single researcher and an abundance of numbers and suggested measures was available, from numerous individuals, groups and institutions. In this context the HDI and dollar-a-day relied as much on their institutions as on their own ‘value added’ and production processes of their measures.

In addition to the technical features of the measure and the market, context matters. In order to understand poverty measures, their historical context is important and the production domain demonstrates how the poverty measures originate and are situated. For example, even though by the 1960s different measures of poverty were available in theory, the poverty thresholds adopted by the government originated from the method and material which Orshansky combined, rather than on a focused comparison of ‘what was in the market’ in terms of theoretical approaches. Orshansky produced a new measure without any intention to investigate the measures already available in the market or indeed any intention of providing official thresholds. Thus, in addition to determining whether a measure is trusted, the market

and the context can play an essential role in determining what use is made of the measure.

6.3 Politics

In Chapter 1, poverty measures were related to statistics, which as Desrosières analysed in *The Politics of Large Numbers*,⁹³⁴ have the double role of both being and referring to social facts. He connected the level of establishing statistics and acting upon them within the state. The case studies have demonstrated that poverty measures and numbers are political. Poverty measures provide both a scientific language of establishing ‘what is’ and also a political and administrative language of ‘we must.’⁹³⁵ However, as they operate in both areas, there is a tension in understanding poverty measures as one of these two different languages, as shown by the inconclusive debates about changing the US thresholds. Effective use of poverty measures depends on the user’s aims for the poverty measure in question. Without clarity on the different levels and policy interactions, no analysis of the way in which poverty measures and numbers work in society can be effective.

6.3.1 Political embedding of poverty measures

The case studies in the present thesis showed how poverty measures have been embedded within politics. Booth was an individual when he started his investigation, but through his work became important within both social science and government. The US thresholds originated as an initiative within a sub-bureau of the US government. The HDI and dollar-a-day were produced in two large international organisations. These different institutional settings influence the way that the numbers both operate and were distributed and adopted by the market.

Booth’s case was not at first politically embedded; his products did not depend on an institutional setting or political connections. Instead, his products were accepted and became part of political action because he convincingly entered the market and created new markets through the thoroughness of his work and insight, and later through the people involved, who became politically active and influential.

By contrast, the US thresholds found their origin in a bureaucratic institution and therefore already had a position within the political domain. In addition, they coincidentally were swept into the politics of the planning and practice of the War on

⁹³⁴ Desrosières. *The Politics of Large Numbers. A History of Statistical Reasoning*.

⁹³⁵ See Section 1.4.2 and below in Section 6.5.

Poverty and were further taken up by the government as the first set of official poverty thresholds.

Even more politicised, the HDI not only emerged within an international institution focusing on development, but was actually deliberately and strategically developed as a defining measure to characterise human development and enhance the approach of the UNDP. The World Bank developed the dollar-a-day in the same period but acted differently with its interest groups and stakeholders. As a result, even though the UNDP was actively seeking competition, as a newcomer to the market it did attract enough attention and offered a suitable competitor within the international development field and research. The UNDP actively engaged with its stakeholders and offered them a more democratic approach than that of the World Bank. The World Bank has taken more a top-down approach and has not been keen to for political interest groups to take an active role within the production domain of the dollar-a-day. This can be demonstrated by the almost silent manner in which the measure was transformed into the \$1.08 and \$1.25 the dollar-a-day that it currently represents.

Distribution connected production and user domains and the politics of poverty numbers concerns how both groups interact. Different groups have their priorities differently aligned, according to policy dynamics. Without initial awareness, acceptance or implementation of the measures, there can be no use of the numbers. Examining the distribution process prevents us from falling into the trap of assuming that the products simply appear in the user domain without problems. Inspired by Howlett and Morgan,⁹³⁶ the product approach contributes to our understanding of this process by also focusing on the distribution domain, allowing for a more nuanced view of the movement of products between producers and users.

Moreover, this distribution may be a political process, as the case studies on the US thresholds and HDI demonstrated. The US thresholds emerged within the political setting of Johnson's War on Poverty and quickly became used for different purposes, not only to help decide who was in poverty and their eligibility for welfare programmes, but also to become the official poverty thresholds representing poverty as such. Its subsequent use further distributed the product. The HDI was political from the start: the agenda was to compete with growth measures and a way to

⁹³⁶ Howlett and Morgan. eds., *How Well Do Facts Travel? The Dissemination of Reliable Knowledge*.

distribute the Human Development Paradigm and its philosophy, which in turn was an attempt to change views on development and what to value in development. Therefore the HDI served the distribution of a larger agenda and the reciprocity between promoting the numbers and the measure helped advance the scope and impact of the HDI. The distribution included the political activities of promoting the product package (including the report), the underlying research and therefore the focus of the researchers and the local governments; hence, besides its ostensible purpose, the report serves to focus attention on local development themes and issues and ways of channelling the debate. Booth's case showed that his numbers helped to distribute his methodology and the broader idea of the need of a social science methodology to investigate society. Moreover, it helped him to receive enough trust to join the Royal Statistical Society as well serve in numerous governmental roles.

Therefore, after the initial production of the poverty measure, the producer can lose control over it as different interest groups become involved and the varieties of use become more difficult to align. Political pressures, in their broadest sense, emerge and the numbers themselves become highly politicised.

6.3.2 Poverty measures in their political space

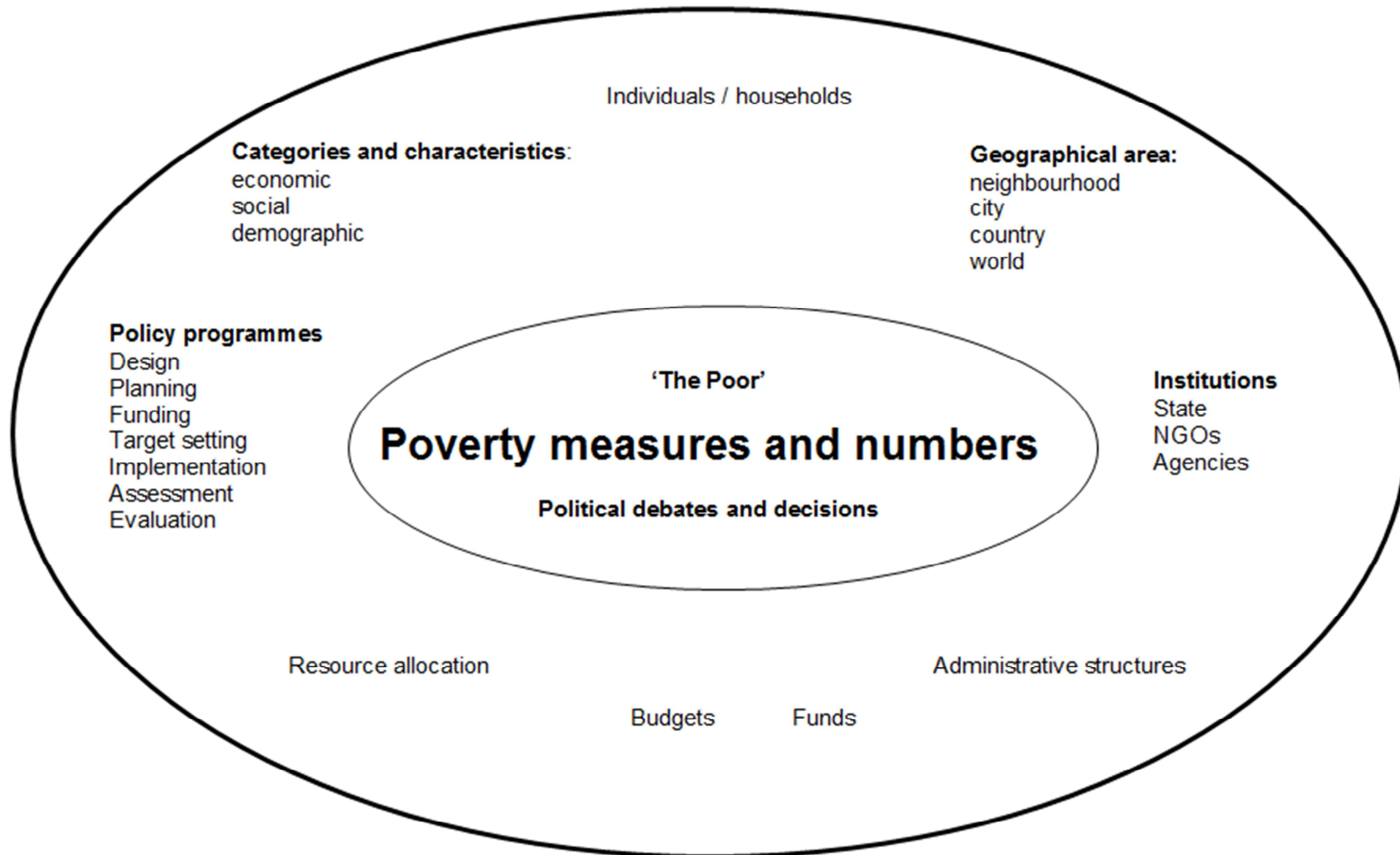
The research in the present thesis has encouraged reflection on the political process and the question why some poverty measures such as the US thresholds have remained relatively resilient despite problems and attacks on their validity. In order to understand the politics of measures and numbers, different levels should be identified which are blurred in the discussions. For example, the update of US thresholds can be seen to have taken a dead end by not taking into account the fact that the levels of analysis have not been aligned with levels of political intervention.

The levels in measuring poverty as depicted in Figure 6-1 (Section 6.1.1) differ from the ways in which the measures and numbers function in the political space. Different users are involved and their interests and purposes for using the numbers interact. Figure 6-2 below illustrates the possible interactions related to poverty measures and numbers in their political space. For policy purposes the poverty measures and numbers can be a starting point in establishing how many and whom are poor and through poverty measurement 'The Poor' are defined and analysed. The individuals and households can be located within geographical areas and they are categorised according to economic, social and demographic

characteristics. The way the measurement characterises and localises the poor matters for policy programmes. All policy phases from design to evaluation interact with poverty measures and numbers. The policy programmes are embedded within certain institutions in which different structures determine the implementation processes. Moreover, the measures and numbers influence political debate and the finances that are involved.

The different parts of Figure 6-2 interact and all interrelate to poverty measures and numbers of the process depicted in Figure 6-1. The individual, household, or geographical area can be compared to the poverty measures to establish 'the poor.' The policy implementation is geared towards these different groups and can be connected to the pragmatic issues involved with policy implementation. This involves issues of administrative structures such as which government agencies design and implement which programmes and which departments work together or deal with the responsibilities of budgeting and programme implementation. The characteristics are important for being the categories to act upon, to establish whether the focus may be on the unemployed, families headed by women, for example, or more structural interventions in the minimum wage, unemployment benefits, child benefits. When a category is assessed as more susceptible to being poor, such as those headed by females, this may offer guidance to policy designers regarding a good target to aim at. This leads back to the categories. Nevertheless, the 'poor' and even 'poor families headed by a female' are still heterogeneous and not physically a group as such, but more an outcome of the measurement process which categorises them.

Figure 6-2 Poverty measures and numbers: the political space



The categorisation is important in combination with the policy design and policy funding, which depends on resource allocation, both within the ‘poverty’ focus and in the wider budgeting decisions of government spending. Therefore, this is a political decision taken in a way which considers other programmes, as well as the ways to approach the problem – be it through poverty alleviation programmes, laws, interaction with other programmes on, for example, social exclusion, lack of education, unemployment or chances on the labour market. Poverty measures also play a role within policy target setting and evaluation, though this is problematic due to the complexity of poverty and the delays and causal relations between policy interventions and results. The rhetoric on the War on Poverty entailed an implicit reference to the notion of the government’s being able to conquer poverty, which President Reagan subsequently captured in his speech to the State of the Union in 1988: ‘the Federal Government declared war on poverty, and poverty won.’⁹³⁷

As can be seen from Figures 6-1 and 6-2, poverty measures are still important on different levels and in different roles within the political space. ‘Politics’ are important in terms of decision processes on analysing poverty and those on ways to design and implement policy. Figures 6-1 and 6-2 show different purposes and interests at stake. This is one of the reasons why discussing the measurement elements and processes alone is not enough to change a measure, as the US case demonstrated. For the US thresholds in particular but also for the HDI, many suggestions on improving the measures have been offered. However, while the sophistication or improvement of the measure can offer better representations of poverty in numbers, it does not necessarily offer greater usefulness for policy programmes. The debates on poverty and what to do about it are related but very different, even though poverty measures and numbers feature in both.

Moreover, Figure 6-2 demonstrates that the politics and impact of poverty measures go beyond the numbers. The packages of poverty products as well as the people involved in production take the impact further and influence the money spent and the ways in which the resources are allocated and policy plans are implemented towards poverty reduction and alleviation. At the same time, understanding the functions and use of poverty measures and numbers requires consideration of each of

⁹³⁷ Ronald Reagan. *Public Papers of the Presidents of the United States: Ronald Reagan: 1988-89. Book 1, P.87 Annual Message to the Congress on the State of the Union 25 January 1988*, vol. 1, Washington, D. C.: Government Printing Office (1988).

the stages in analysing and acting upon poverty, because the interaction runs both ways.

6.4 Users as co-producers

Oudshoorn and Pinch suggested that ‘users matter’ for technology,⁹³⁸ a dictum which the present thesis applied to poverty measures. Different uses and functions of poverty measures can be identified (see Section 6.5 below). Moreover, from the notion of co-production the present thesis used the statement that ‘society and the statistics that measure and describe it are mutually constructed’⁹³⁹ for its analysis of poverty measures and show co-production as well as lack of co-production.

The product approach has analysed what happens with poverty measures after they are produced, which is difficult to research. Because they are information products, the analogy with commercial products is not entirely positive, but the product approach still offers a focus on the different groups which use the poverty measures and for which purposes the measures are employed. As illustrated in Figures 6-1 and 6-2, there are different levels and policy interaction relating to poverty measures. In terms of users, different groups can be associated with these levels. The producers, statisticians and governmental bureaucratic employees responsible for data gathering can be seen as the users for the levels in Figure 6-1. A variety of different political users can be associated with Figure 6-2, ranging from government leaders, policy design and evaluation teams, budgeters, political parties debating the importance of poverty, pressure groups in advocating and the media in reporting. It also includes the people involved in the different departments on the pragmatics of the policy implementation and those benefiting from these programmes. The aim of poverty programmes is to target alleviating the plight of the poor, even though whether they are effectively and efficiently reached is a different issue. Therefore, the product approach has offered a way to identify and analyse the user groups of poverty measures and bring out the different levels and functions of poverty measures that were previously unidentified but relevant for the assessment of policy setting and implementation and of political debate.

The user domain has been particularly important in the case study of the US thresholds. The number was taken up by the users in ways that the producer did not

⁹³⁸ Oudshoorn and Pinch. *How Users Matter: The Co-Construction of Users and Technologies*.

⁹³⁹ Saetnan, Lomell, and Hammer. *The Mutual Construction of Statistics and Society*. p. 1.

envisage at the time of production. The most important and unexpected user was the President of the United States, who instigated the War on Poverty and thereby initiated the adoption of the newly developed poverty thresholds as the official US poverty measure. The case of the US poverty thresholds has demonstrated that Orshansky reached the market for poverty measures unintentionally and lost control over the measure in the market. The variety of interests among the users has made the discussion about updates too complex to actually decide upon a route, with the result that the measure is still currently used. Even though various attempts were made to change the measure, no agreement was found. The users actually produced many alternatives over the years, therefore actively engaging with the aim to co-produce, but this turned out unsuccessful. Despite co-producing intentions and efforts, this result therefore demonstrates lack of co-production.

The Booth, HDI and dollar-a-day cases demonstrated different kinds of co-production. Booth's work offered a package of goods which actively engaged with the users. Through their political careers, many of the researchers involved in his project made a powerful impact on poverty via political routes, as did Booth himself. His package of innovations had a lasting impact and included a benchmark for poverty measurement, facts on poverty, facts on causes, survey methods, and the use of maps and social science methods.

The UNDP, actively interacting with their users, set up the HDI and related products. With the emphasis on community building and outreach, the human development approach has been actively shared. The UNDP reached out to new users and invited debates on concept and measures. Co-production can be seen as successful in the ways that the debates, journals, research and policy practice interact and further form the human development paradigm. This includes the HDI, which has been developing and continues to develop because the UNDP has allowed for a dispersed ownership of the measure which facilitated interaction and co-production. The World Bank in contrast, has not allowed for such interaction and co-production. Their dollar-a-day measure has stayed within their control and the World Bank has retained close ownership over its measures and data, which did not facilitate co-production.

The main group missing from the users and therefore also in co-production is 'the poor' themselves. Policy programmes based on the measurement aimed to reduce the poverty rate and thereby poverty as it is manifested. Typically the poor

have to rely on other user groups, such as charity groups or NGOs, to represent them and give them a voice. The poverty measures establish who are counted as poor and therefore artificially create a group – even though the poor themselves remain heterogeneous and can therefore not as easily be approached as neat classifications or tables or numbers would imply. Poverty measures produce ‘the poor’ even though they themselves do not exist as a group or use the poverty measures.

6.5 Functions and use of poverty measures

The present thesis discussed poverty measures from production to use and identified and clarified the functions and use of poverty measures and numbers. They provide poverty information and function in various ways. Poverty numbers describe, illustrate and provide a record of poverty in a certain place at a certain time. In its numerical form, and thus facilitated by its quantified format, the information can be easily shared. In addition, over the years measures can record and demonstrate a certain state or change. At the same time, through the decisions made in each of the stages of analysing poverty measures, the information creates new concepts and transforms the meaning of old ones. In addition, it can aggregate and summarise information on poverty, as well as allowing for comparisons over time and space.

In Section 1.4.2 of Chapter 1 the following five functions of statistics⁹⁴⁰ were related to poverty measures:

1. *The paradox of statistics simultaneously being the referent and reality.*
2. *Statistics meaning both method and numerical results.*
3. *Attitudes towards statistics as real or made, demonstrating positions of being realist or objectivist versus relativist or historicist.*
4. *Statistics being both the scientific and political language to describe ‘what is’ and ‘what we must do.’*
5. *Statistics providing the change in perspective from the singularity of individual actions to summaries and comparisons.*

As point one states, poverty statistics both refer to and become poverty facts. Moreover, in both functions they influence attitudes towards poverty (point three). Poverty measures thus function as producing numerical facts, under quantifying rules. They answer a search for objectivity and the growth of trust, as the cases of Booth and the HDI demonstrated in their ways of bringing together information that

⁹⁴⁰ See Section 1.4.2.

previously was difficult to quantify a number. Because the concept could be captured in a number, it gained a different status, that of fact, or that of competitor to the GDP growth indicator in the case studies of Booth and HDI respectively. In this role, they offer a way to 'trust in numbers' rather than in expert knowledge or other sources of information, on both the number and its measurement (point two).

As can be seen in Figure 6-2, the poverty measures can also be used to direct behaviour and help or serve directly as a tool for decision making. The poverty measures establish a new group: 'the poor,' they identify and establish who are in poverty according to their definition. Through the process of measuring poverty, information on the causes of poverty can or need not be taken into account, depending on the measure. For example, Booth was explicitly concerned with identifying the causes of poverty, whereas the US thresholds and the HDI and dollar-a-day were developed without a direct focus on the causes. Poverty measures and numbers can be seen to serve as a gateway to the underlying information and understanding of poverty and the poor, which in turn can guide the behaviour towards policy interventions. But even without a full understanding of the causes, the poverty measures and numbers are an essential starting point of the design of policies for poverty, by establishing the scope of poverty and quantifying and categorising those who suffer from it.

Within the same policy dynamics sphere, different groups use the same poverty measures. They have different demands for numbers and aims for use. Quantification can be seen as strength or weakness, depending on the user group and use. Politicians can make a speech using the level of poverty in the population to emphasise the severity of the problem. At the same time, they can use an anecdote to bring the personal side of poverty back to life, from which it was abstracted through the quantification process. The measures also allow for comparisons over time to establish the trends in poverty. The quantitative character of poverty measures allows for the use of proportions, aggregation, comparisons and channelling the focus through those aspects, as decided in the production domain. In turn, however, this makes changes in the poverty measures problematic. The US case study demonstrated that the attempts to alter the established measure have been unsuccessful. After becoming reliant on the measures, the debate could not be brought back to one level and therefore involved reopening debates with more user groups with different interests. This is not only the process outlined in Figures 6-1

and 6-2, but an even more complex range of political, semantic and technical decisions, which proves to be system dependent.

Thus, the user domain involves a variety of user groups, all with their own purposes and aims for using the poverty measures. The measures and numbers can function differently for each group: as statistics; as policy tools; as representation of a social concept; to link a social problem to policy interventions; as a tool to advocate and put poverty on the political agenda; as a tool to allocate resources; to identify the poor; to demonstrate the severity of poverty as a problem.

Yet another function can be seen: their use for policy target setting and evaluation,⁹⁴¹ which is problematic. Poverty measurement by itself can describe 'what is' without necessarily offering guidance on 'what we must do' (point four in the list). Poor relief and programmes can be offered on different levels, ranging from national to household level, all with the aim of improving the situation in which the individual lives. Poverty measures can also function as an eligibility check for individual applications. They can also guide programmes targeting certain groups. Yet whether these groups are actually reached is another issue. Because even when programmes are designed, in reality policy planning and implementation do not always reach the people targeted. For example, Orshansky identified that of those under the US poverty thresholds only a proportion of the poor obtained the state support available. Thus, those identified as poor, those who qualified for state support, still did not actually receive the allocated funds. This may have happened because the benefits did not reach them due to difficulties in implementing well targeted programmes, or to beneficiaries being unaware of or unable to apply for the programmes.

In addition, the connection between being counted as poor and the causes for it, as identified by poverty measurement and related research, is problematic. Subsequently, it can be questioned whether policy programmes can actually change those causes in order to alleviate poverty and whether this in turn will be reflected in the poverty numbers when used for evaluation purposes. Because poverty is a complex problem and is rooted in problems which take time and investment (for example, through education programmes which require years to show results). The

⁹⁴¹ Coinciding with the popularity of evidence based policy, see for example *Overseas Development Institute. Research and Policy in Development. Documents on Evidence- Based Policymaking* (Accessed 17 September 2011).

poverty numbers will therefore not immediately demonstrate results, even if the programmes are effectively reaching the target group and the causes and solutions for poverty are identified correctly. The discussions and debates often take the links between the levels as direct and therefore point out the ‘failures’ of programmes, when in fact all interactions between the levels in the Figures 6-1 and 6-2 are complex and involve secondary outcomes, political and practical tensions and negotiations which inhibit the policy programmes from directly benefiting the poor and as such reflected in the poverty numbers. Poverty is multifaceted and so is policy practice.

There is a further administrative factor, in that programmes are located within different departments within government and are therefore affected by the way in which the system is organised and how effectively it is working. Poverty programmes often interact with other public policy programmes (for example, on housing, education, health and unemployment) and again these interactions affect the success of poverty programmes. They are yet another example of the links not being as direct as the use of the measures and numbers for this purpose would seem to imply.

For example, despite the initial optimism that the enemy could be defeated and the war could be won, the programmes for the US War on Poverty involved a variety of approaches and target groups. The hearings on the Act involved positive language and direct targeting and the aim of using the money effectively; yet according to the planning and evaluations the policy did differently.⁹⁴² Thus policy pragmatics involve issues such as whether the programmes reach the group intended; have the desired effect on causes; have instant and direct results; can reach targeted outcomes; are uncomplicated by corruption, political changes, bureaucratic costs and other processes, which all interfere with target setting and evaluation. The different levels of poverty measurement and policy interactions shed light on these relations and the tensions between individuals to aggregate poverty measures and how to act upon poverty (see point five in the list).

⁹⁴² Literature on the war on poverty discusses the evaluation as a failure. Frank Stricker. *Why America Lost the War on Poverty – and How to Win It* (Chapel Hill: University of North Carolina Press, 2007). Robert F. Clark. *The War on Poverty: History, Selected Programs, and Ongoing Impact* (Lanham, MD: University Press of America, 2002). Zarefsky. *President Johnson's War on Poverty: Rhetoric and History*.

6.6 Conclusion

This thesis has demonstrated a variety of routes via which poverty measures have travelled from production to use. Although the direct impact of the numbers themselves in alleviating poverty has been difficult to ascertain or to prove with explicit reference to the poverty measures and numbers for decision making and resource allocation, using the product approach has broadened and deepened the understanding of poverty measures in their context.

Poverty measures need to be analysed and understood within their context, as do all numbers. They are neither hard facts nor mere manipulations. The production domain of poverty measures demonstrate that poverty numbers are not just objective representations but that the producers, other stakeholders and also the context determine their outcomes. The distribution and the user domains show that there can be a first mover advantage and that some poverty measures are system dependent. The levels of measurement are not directly aligned with the political processes and programmes. Different users of poverty measures have different interests, importance and power. The poor have been identified as being in certain categories or classifications, yet 'the poor' remain heterogeneous individuals who are only artificially brought together by poverty measurement. They are affected by the different ways in which different user groups use poverty measures and numbers in deciding poverty action. Poverty measures are part of larger packages of poverty measures, poverty numbers and poverty information via proportions, maps, graphs, the analysis of causes, internet platforms and applications and the professional and academic networks of those working on poverty. Understanding the complexity of poverty measures allows for a better understanding of the production and use of poverty measures and numbers in the interests of more effective work to reduce poverty.

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