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Inequality, Poverty and Well-being

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Introduction

With more than a billion people living on less than one dollar per day, some evidence of increasing gaps in living conditions within and between countries and clear evidence of substantial declines in life expectancy or other health outcomes in some parts of the world, the related topics of inequality, poverty and well-being are core international issues. The international community has a long history of concern for them and resolve to tackle poverty in the developing world, in income and other well-being dimensions, has evidently heightened in recent years given the commitment to the Millennium Development Goals (MDGs) at the United Nations Millennium Summit in September 2000. Among the many MDG targets are to halve the number of people living in extreme income poverty and to achieve universal primary schooling by 2015 (UN Millennium Project 2005). Concerns for well-being achievement in the developed world are also clearly evident, despite it having achieved ever higher levels of average incomes and improvements in traditional well-being measures. Issues such as social exclusion, human security, well-being sustainability, levels of personal satisfaction and happiness are widely discussed.

The research community has an intense interest in inequality, poverty and well-being. The literature is vast and many different disciplines have contributed to it, aided by the efforts of various national and international agencies in supplying statistical data. Many conceptual and methodological advances have been made and data have increased in availability, coverage and reliability. Social science research, as McGillivray and Shorrocks (2005) point out, has increasingly recognized the importance of non-income dimensions of well-being achievement and of population heterogeneity.

The recognition of non-income dimensions reflects a greater acceptance that well-being and poverty are multidimensional and, in particular, that no single uni-dimensional measure adequately captures the full gamut of well-being achievement. Accordingly, many multidimensional well-being conceptualizations have been developed, and include those of Sen (1982, 1985, 1993), Stewart (1985), Doyal and Gough (1991), Ramsay (1992), Max-Neef (1993), Schwartz (1994), Cummins (1996), Narayan *et al*. (2000) and Nussbaum (2000). The best known indicator of multidimensional well-being achievement at the level of nations is the UNDP's human development index (HDI). Used since 1990, the HDI is updated annually and available for more than 170 countries (UNDP 2005). While often criticized within the academic community, the HDI is used extensively in research and policy work (McGillivray and Shorrocks 2005). The UNDP also publishes country level data on its human poverty index (HPI), gender-related development index (GDI) and gender empowerment measure (GEM) (UNDP 2005).

The increased recognition of population heterogeneity is reflected in the attention given to inequalities in income and other well-being dimensions, both among and within countries (McGillivray and Shorrocks 2005). Most research has tended to focus on income inequality, taking advantage of the much improved income data that have become available in recent years. Changes over time in global income inequality have been hotly debated with some studies showing evidence of increasing inequality since the 1960s in national income per capita among countries (Jackman 1982, Barro and Sala-i-Martin 1992, Sheehey 1996, Jones 1997, Korzeniewicz and Moran 1997, Ram 1999). Other studies report evidence of stability (Berry *et al*. 1983, Peacock *et al*. 1988), while some find evidence of decreasing national income inequality among nations (Melchior *et al*. 2000, Sala-i-Martin 2002). Firebaugh (1999) demonstrates that results from studies of inequality among countries are dependent on whether each country's income is weighted by its share in world population. Studies that do not do this tend to report increasing world inequality.

More is now known about inequality, poverty and well-being than ever before, as a result of the studies cited above and the many more studies that comprise the research literature on these topics. Yet despite progress, the vitality of underlying concepts and quality of empirical measures are still challenged. Plenty of debates are yet to be settled, in addition to that on global income inequality, and there remain many interesting and exciting challenges for the international research community.

Volume contents

This book looks at advances in underlying inequality, poverty and well-being concepts and corresponding empirical measures. It has a strong analytical orientation, consisting of a mix of conceptual and empirical papers that constitute new and often highly innovative contributions to the literature. It consists of a further ten chapters, each of which attempts to push the literature into new and inspiring directions, addressing some of the challenges alluded to above.

Public policies often involve prioritizing or ranking alternatives in which the size and the composition of the population may vary. Examples are the allocation of resources to particular intended well-being outcomes and the design of aid packages to developing countries. In order normatively to assess the corresponding feasible choices, criteria for social evaluation that are capable of performing variable-population comparisons are required. Chapter 2, by Charles Blackorby, Walter Bossert and David Donaldson addresses this issue. Entitled 'Population Ethics and the Value of Life', the chapter reviews some of the properties of criteria for conducting variable-population comparisons.

Chapter 3 examines inequality measurement. It is written by Alain Chateauneuf and Patrick Moyes and is entitled 'A Non-welfarist Approach to Inequality Measurement'. An important principle in inequality measurement is the transfer principle. This principle requires that inequality decreases and welfare increases as a result of a progressive transfer. Recent experimental studies have shown that the principle of transfers is, to a large extent, rejected by the public, something that raises doubts about the ability of the Lorenz criterion to capture the very notion of inequality. Chapter 3 introduces different generalizations of the concept of a progressive transfer, where the solidarity among the individuals taking part in the transfer plays a crucial role. It shows how these transformations are related to the measures of deprivation and satisfaction that are proposed in the literature. Finally, it identifies classes of the Yaari (1987, 1988) social welfare functions that are consistent with these weaker notions of the principle of transfers.

Chapter 4, written by Christian Seidl, Stefan Traub and Andrea Morone, is entitled 'Relative Deprivation, Personal Income Satisfaction and Average Well-being under Different Income Distributions: An Experimental Investigation'. An individual's perception or categorization of their income will depend on the context in which it is viewed. For example, the level of satisfaction individuals derive from their incomes will depend in part on the incomes of other individuals. This and similar issues relating to the categorization of incomes is examined in Chapter 4. More precisely, the chapter looks at income categorization effects of uniform, normal, bimodal, positively skewed and negatively skewed income distributions. Among the chapter's findings is a paradox between individual income satisfaction and aggregate well-being, with the latter being higher for a negatively-skewed distribution than a positive one.

The focus on income inequality continues with Chapter 5. That chapter, written by Steve Dowrick and Muhammad Akmal, is entitled 'Contradictory Trends in Global Income Inequality: A Tale of Two Biases'. It asks whether global income inequality, defined in terms of population-weighted income inequality among nations, rose or fell during the last decades of the twentieth century. The chapter initially provides results consistent with those discussed earlier, suggesting that income inequality rose if the comparisons are based on exchange rates but fell if purchasing power comparisons based on information from the Penn World Tables are employed. The chapter then argues that both measures of real incomes lead to biased international comparisons, because observations based on exchange rates ignore the relative price of non-tradeables, while the fixed price PPP method underlying the Penn World Tables is subject to substitution bias. The contradictory inequality trends reflect growing dissimilarity between national price structures that increase the degree of bias in each method of comparison. Dowrick and Akmal use the multilateral true index methodology of Dowrick and Quiggin (1997) to yield 'true' PPP income comparisons that are free of both substitution bias and traded sector bias to examine changes in income inequality during the period 1980 to 1993. No evidence of a significant change in global income inequality is reported.

Mobility is closely related to inequality. Economic mobility refers to changes over time in the economic status of an individual or group. Are, for example, the income poor upwardly mobile or do they stay in the same economic position over time? The economic mobility literature investigated this and many similar questions, using a variety of indices. Mobility indices and their conceptual underpinnings are examined in Chapter 6. Written by Gary S. Fields, it is entitled 'The Many Facets of Economic Mobility'. It observes that the different mobility indices used by different authors are not measures of the same underlying conceptual entity; rather, different mobility indices measure fundamentally different concepts. Using data for the United States and France, Chapter 6 addresses such fundamental mobility questions as whether mobility has been rising or falling over time and which groups in the population have more mobility than others. The results show that the answers to even these most fundamental questions depend on the mobility concept used. The implication is that before social scientists 'do a mobility study', we need to be very clear about the mobility concept or concepts we wish to study. The choice can and does make a vital difference.

The book then focuses on the issue of poverty, commencing with Chapter 7. The chapter is entitled 'Social Groups and Economic Poverty: A Problem in Measurement' and written by S. Subramanian. This chapter points to some elementary conflicts between the claims of interpersonal and inter-group justice as they manifest themselves in the process of seeking a real-valued index of poverty which is required to satisfy certain seemingly desirable properties. It indicates how 'group-sensitive' poverty measures, similar to the Anand–Sen (1995) gender-adjusted human development index and the Subramanian–Majumdar (2002) group-disparity adjusted deprivation index, may be constructed. Some properties of a specific 'group-sensitive' poverty index are appraised, and the advantage of having a 'flexible' measure that is capable of effecting a trade-off between the claims of interpersonal and inter-group equality is spelt out. The implications of directly incorporating group disparities into the measurement of poverty for poverty comparisons and anti-poverty policy are also discussed.

A non-income dimension of well-being and poverty is examined in Chapter 8, which is written by Satya R. Chakravarty and Amita Majumder. The chapter is entitled ‘Intersociety Literacy Comparisons’. Basu and Foster (1998) characterized a sophisticated literacy measure using five axioms. These axioms are externality, anonymity, monotonicity, normalization and decomposability. The essential idea underlying the first of these axioms is that a literate person confers positive externalities on all illiterate persons of the household to which they belong; appropriate situations where normalization and decomposability do not hold. Chapter 8 provides a class of literacy measures that may or may not satisfy decomposability but satisfies the remaining four axioms. This class can then be extended to a larger class of measures whose members will fulfil anonymity, monotonicity and externality but not necessarily the other two Basu–Foster axioms. The chapter also illustrates different measures numerically using the national sample survey household level data for the rural sectors of seven states in India for the year 1993–94, and derives some policy implications of intra-household positive externality from literacy.

Chapters 9 to 11 look at topics relating to multi-dimensional well-being measurement. Chapter 9 is entitled ‘The Human Development Index Adjusted for Efficient Resource Utilization’ and is written by F.J. Arcelus, Basu Sharma and G. Srinivasan. The UNDP obtains HDI values by taking the average of three equally weighted measures of longevity, education and income. However, this computational process is independent of the resources being devoted by each country to the achievement of the three outcome levels. Hence, it is conceivable that two different countries may consume vastly different amounts of resources in achieving the same outcome, say, longevity. This difference in the efficiency of resource utilization is not reflected in the HDI. Chapter 9 addresses this efficiency issue, providing HDI values adjusted for the efficiency of resource allocation processes.

Chapter 10 looks at the incorporation of environmental factors into well-being indices. It is entitled ‘A Framework for Incorporating Environmental Indicators in the Measurement of Human Well-being’ and is written by Osman Zaim. Relying on an economic–theoretical approach to index numbers, it also proposes an improvement index which alleviates the well-known deficiency of across time comparison of deprivation index. A feature of the index proposed is that it does not require any normative judgements in the selection of weights to aggregate over constituent indices. Rather, within an activity analysis framework optimally chosen weights are determined by the data. In developing the index which incorporates environmental indicators to the measurement of human well-being, due emphasis is put on production with negative externalities and a very recent analytical device – directional distance functions – is employed as a major tool in constructing quantity indexes and improvement indexes.

The final chapter, Chapter 11, is entitled 'Measuring Non-economic Well-being Achievement' and written by Mark McGillivray. The chapter observes that income per capita and most widely reported non-income based human well-being indicators are highly correlated among countries. Yet many countries exhibit higher achievement in the latter than predicted by the former. The reverse is true for many other countries. Chapter 11 commences by extracting the inter-country variation in a composite of various widely reported, non-income based well-being indices not accounted for by variations in income per capita. This extraction is interpreted as an aggregate measure of not only non-economic well-being achievement, but also of achievement in converting economic into non-economic well-being. The chapter then looks at correlations between this extraction and a number of new or less widely used well-being measures, in an attempt to find the measure that best captures these achievements. Various empirical procedures are performed, which *inter alia* allow for measurement error in the non-income-based measures. A number of indicators are examined, including measures of poverty, inequality, health status, education status, gender bias, empowerment, governance and subjective well-being.

The topics covered in this book address important issues relating to research on inequality, poverty and well-being. They are useful in their own right, but beyond that it is hoped that they will stimulate further research along similar lines.

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Notes: f = figure; n = note; t = table; **bold** = extended discussion or heading emphasized in main text.