Review of Income and Wealth
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EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT ECONOMIC INEQUALITY—BUT DID NOT KNOW WHERE TO LOOK TO FIND

Review of *The Oxford Handbook of Economic Inequality*, edited by Wiemer Salverda, Brian Nolan, and Tim Smeeding (Oxford University Press, Oxford, 2009)

The *Oxford Handbook of Economic Inequality* assembles a star-studded cast and, with an Editors' Introduction, 26 distinct chapters, and over 700 pages of text, it delivers a massive compilation. The objective is to provide "an overview and evaluation of the current state of international research on economic inequality" and "to add new insights and open up novel perspectives for further research." And it succeeds. Those who can afford to purchase it will want it on their bookshelves and those who cannot buy it themselves will want their library to pay—economic inequality in action!

A major strength of the volume is its breadth. There is a judicious combination of attention to themes which are now less popular than they used to be (such as Glyn's discussion of the functional distribution of income in Chapter 5) and themes that are currently much hotter (e.g. Chapter 15 by Van Praag and Ferrer-I-Carbonell on Inequality and Happiness). Since each of the 26 chapter topics represents a major research area of its own, each is potentially vast. One can only sympathize with the efforts of editors and authors to squeeze each topic's overview, evaluation, new insights, and novel interpretation into a bit over 20 pages (plus bibliography)!

Nevertheless, there are a few overarching themes. Much of the academic research on inequality has been empirical, since the level and trend of "economic inequality" is a hotly contended component of some basic political and social debates, so a major focus of the literature has been to establish what the "facts" really are. Because most chapters are empirically grounded, an important contribution of this volume therefore is its authoritative summarization of "the facts"—what we now know, and what we do not now know.

On some important issues, it is a useful contribution to establish that there is no "fact"—no clear generalization that can be extracted from international data.

Is there a general trend to greater economic inequality? Brandolini and Smeeding (Chapter 4, p. 89) are worth quoting at length:

> Changes in inequality do not exhibit clear trajectories, but rather irregular movements, with more substantial changes often concentrated in rather short lapses of time. Together with the lack of a common international pattern, this suggests looking at explanations based on the joint working of multiple factors which sometimes balance out, sometimes reinforce each other, rather than focussing on explanations based on a single cause . . .

Is there a single, clear explanation for low pay? Lucifora and Salverda (Chapter 11, p. 269) comment:

> The conditional probability of low pay is seen to depend on both personal attributes and firm characteristics. The relative importance of individual and job characteristics versus establishment effects, however, seems to vary widely across countries.[1]

Does greater inequality in annual incomes reflect greater mobility in annual incomes? Burkhauser and Couch conclude Chapter 21 by saying (p. 541):

> Most studies find no clear relationship between greater cross-sectional inequality and greater intragenerational mobility.

Is there a trade-off between inequality and growth? In Chapter 22, Voitchovsky notes (p. 561) that:

> In spite of a large number of studies on this topic, the contemporary empirical literature has so far failed to reach any substantive conclusions regarding the overall influence of inequality on economic performance.

But Ferreira and Ravallion (Chapter 24, p. 628) are blunter:

> . . . there is no systematic empirical relationship between economic growth and changes in inequality.

And one could continue. These agnostic conclusions, based on a careful assessment of the international evidence, are important partly because they often contrast so starkly with the simple certainties of faith. One only has to open one's daily newspaper or (worse) watch television to observe pundits pontificating, with great self-assurance, on the clear lessons of history on exactly these issues.

But this volume is also unambiguous in some conclusions. As Nolan and Marx note, for example, in their chapter on poverty, "No advanced economy achieves a low (relative) rate of poverty with a low level of social spending, regardless of how well it does at maximizing employment—arguably one of the most robust findings of comparative poverty research" (p. 330). ("Virtually all studies conclude similarly . . ." is the way Esping-Anderson and Myles express the same conclusion in their chapter (p. 655) on the welfare state.) Ferreira and Ravallion are also quite emphatic in concluding (p. 632); (a) that "there is a clear negative correlation between average levels of inequality and the level of development . . . there are no developed countries today with inequality levels above a Gini of 0.5"; and (b) "economies that grow faster reduce absolute poverty much more rapidly."

In some important respects it is the combination of chapters which produces a conclusion. With Lane's Chapter 9 emphasizing the importance of firm-specific and industry-specific variation to the distribution of earnings, followed by Visser and Checchi's summary in Chapter 10 of the role unions play in influencing the level of inequality, and then by Lucifora and Salverda's discussion in Chapter 11 of the interplay of institutions, employer characteristics, and worker skills in

[1]Remarkably, however, Lucifora and Salverda exclude the self-employed from their analysis, thereby drastically limiting their relevance to the broader issue of non-standard employment and its impacts on inequality.

determining low pay, it is clear that there is much about economic inequality that a simple supply-side model of human capital acquisition cannot explain.

In a volume of this length and depth, every reader will have their own favorite list of important facts and interesting conjectures—and perhaps also their own suggested list of chapters that could have been longer. In Ferreira and Ravallion's excellent overview in Chapter 24 of the Global Context of Inequality, for example, they do not have the space to do more than outline the stylized facts of economic inequality among the five-sixths of the world's population that do not live in the affluent nations studied in the other 25 chapters. As a consequence, the differences between poor and affluent nations in the determinants of the level and future trends of economic inequality do not really get mentioned, so the incautious reader might easily be left thinking that the conclusions drawn from affluent countries' data generalize to the world.

Chapter 18 on Demographic Transformations and Economic Inequality by Burtless, for example, focuses heavily on changes in household living arrangements and the husband/wife correlation in money income—the general conclusion (p. 453) is that "when countries experience changes in the income distribution that are large enough to attract popular notice, demographic shifts are almost never the main source of change." This makes sense, in a context where "most demographic shifts . . . occur at a gradual pace"—but this is not the emerging reality of much of the world. Canadians are, for example, concerned about "population aging" because 17.8 percent of the population was over 60 in 2005, and the medium variant projection of the UN foresees this increasing to 31.8 percent in 2050.[2] However, although both China (10.8 percent) and Brazil (8.9 percent) had a substantially lower population percentage over 60 in 2005, they will get to much the same place, but at a much more rapid pace—under the medium variant UN projection, 29.3 percent of Brazilians and 31.1 percent of Chinese will be over 60 by 2050. Since demographic change will be similarly rapid in many other nations (but not in India or in Sub-Saharan Africa), it is highly likely to drive significant trends in economic inequality for much of the world's population.

Although much of the volume focuses on "the facts" of inequality, the implications of economic inequality for well-being are also addressed. Chapter 14 by Folbre, confronts the problem that people need some control over their time, as well as access to material goods, if they are to enjoy life, so the inequality in money income (or consumption or wealth) which we measure in conventional statistics can be an imperfect guide to inequality of well-being. In Chapter 15, Van Praag and Carbonell note that self-reported happiness scores can be interpreted as either ordinal rankings or cardinal measurements, but that one only needs the ordinal interpretation for the empirical result that "happiness is indeed negatively linked to rising inequality in the reference group" (p. 374).

However, Van Praag and Carbonell also conclude by reminding the reader (p. 379) that "in the end the individual and society act on reality as it is perceived." That reminder suggests that a missing link in the volume may be its lack of a chapter discussing the relationship between subjective perceptions and objective measure-

[2]All demographic data are taken from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2008 Revision*, http://esa.un.org/unpp

ments of economic inequality. It is, for example, certainly impossible for more than 30 percent of survey respondents to be objectively in the middle three deciles of the income distribution, but it is also clear from the survey data that many more than 30 percent of the population *think* they are in the middle of the distribution—and this surely matters for both for the welfare consequences of economic inequality and for the politics of the taxes and transfers that help shape economic inequality.

In Chapter 16, Leigh, Jencks, and Smeeding take aim at the huge and hotly contested literature on Health and Economic Inequality. Although higher per capita GDP has a very clear impact on population health at low levels of income (as standards of basic nutrition and public health infrastructure rise), for the sample of rich countries examined in this volume, the relationship is "small or non-existent." As they note, there are multiple possible channels of mutual influence for economic inequality and health to influence each other, and subjective perceptions of inequality play a key role (e.g. in the relative income and social stress hypotheses). Although most studies find statistically insignificant relationships, a fundamental problem is the fact that "this is a field with too many theories for the number of available data points" (p. 399).

In my own view, it would be amazing if cross-country regressions could reveal an unambiguous relationship between health and economic inequality. In addition to there being relatively few data points, "Health" has to be one of the most complex one-word concepts around. Do we mean physical health, mental health, or "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[3] If we just have physical health in mind, is it life expectancy at birth, or at legal adulthood, or at the age of wisdom (e.g. 60) that we should consider? Are all life years to be counted equally or does morbidity matter? Should one measure Quality Adjusted Life Years using self-reports of health, subjective valuations of hypothetical health states, or interviewer measurements of specific capabilities? How does one aggregate across ailments, capabilities, and other dimensions of health? All these measurement choices (and many more) matter—and they each correspond to a different facet of "health" that matters for a different reason.

But is the idea of "economic inequality" any less complex?

My only complaint about this volume is that it does not highlight the complexity of the idea of inequality, the many different understandings of the meaning of the term "economic inequality," and the many different reasons why people care about the topic. Although one could say that the range of topics addressed in the volume, and the diversity of methodologies used, *implicitly* illustrate the general proposition that "economic inequality" is a very complex concept, and that the word "inequality" can be used with subtly different meanings, these differences are left implicit.

Sometimes, for example, "economic inequality" is used to describe the *income ratios* of individuals or groups. In this volume, Mary Gregory's discussion of gender differences begins by noting (p. 285), "Equality of outcomes in the labor market has not been achieved." From the context, it is clear that she does not understand "equality" to imply that everybody gets the exact same wage—rather "equality" is understood as an equal expectation of returns to productivity-relevant character-

[3]World Health Organization. See http://www.who.int/about/definition/en/print.html

istics, and her focus is on explanation of the male/female ratio in average earnings. When the term "inequality" is used in this sense to mean individual or group average ratios, it is enough to know the relative income (or expected income or wealth or earnings) of each type of person. The number of people with similar characteristics is not necessary information for the calculation of income ratios (or ratios of the conditional expectation of income or any other ratio)—and a number of authors in this volume evidently think of "economic inequality" in this way.

In, for example, Roemer's analysis of equal opportunity between "types" of individuals in Chapter 2, the proportion of people in each type is not part of the discussion. When Blau and Kahn, in Chapter 8, use the decomposition of a regression of relative individual earnings on personal characteristics to explain the change in earnings differentials associated with such characteristics, their focus is firmly on relative wage rates—shifts in population frequencies get barely a mention, let alone any analysis. And although Lane's excellent discussion in Chapter 9 of the role of inter-firm differences in earnings does remind us that the demand side of the labor market matters, it also focuses on differences between industries and types of firms, with no real analysis of trends in the relative size of each group.

However, the income ratios between types of persons is only part of "inequality of economic outcomes" in the distribution of *shares* of income in a population (and it is inequality in this sense which is the focus of most of this volume). When Atkinson wrote his fundamental article on comparisons of inequality measurement in 1970, he started with the basic idea of "comparing two frequency distributions $f(y)$"—his lasting contribution was to note the potential ambiguity in international rankings of inequality using the Gini, Theil, or other aggregate indices of inequality when frequency distributions differ such that the Lorenz curves of the cumulative distribution cross (Atkinson, 1970). In Chapter 3 of this volume, Jenkins and van Kerm, with characteristic clarity, update us on the literature on inequality measurement since then and show us how to calculate the various statistical indices of income inequality encountered in the literature. Their starting point, as was his, is the frequency distribution of incomes, from which they calculate a summary statistic of income shares.[4]

Although it is true that identical incomes for all persons would mean zero inequality in both the "income ratios" and "income shares" senses, in general these two meanings of "inequality" are not at all the same. Indeed, any given set of income ratios between groups can generate widely varying estimates of aggregate income shares inequality (in the sense summarized by a Gini or Theil index), depending on the relative number of people in each group. To explain "inequality" in the Atkinson sense of inequality of income shares—i.e. $f(y)$—one needs an analysis of both income ratios and population frequencies.

In this volume, some authors are able to do this. For example, when Kahanec and Zimmerman address the role immigration and ethnicity play in inequality in Chapter 19, their focus is not limited to analysis of the immigrant/native-borne average wage ratio. Instead, they emphasize how changes in skilled and unskilled

[4]However, in contrast to the original Atkinson article, Jenkins and van Kerm only mention tangentially, but do not emphasize, the idea that different aggregate indices of inequality (e.g. the Gini, Theil, or Coefficient of Variation) are differentially sensitive to changes in the top, middle, or bottom of the distribution.

immigration affect aggregate inequality (their summary measure is the Gini index) through jointly changing both wage ratios and population frequencies.

But in some other contributions, the frequency distribution of incomes—$f(y)$—rather disappears, since the focus is on yet another meaning of inequality. In Chapter 20, Björklund and Jäntti are concerned with inequality of opportunity, not inequality of outcomes. When they examine intergenerational income mobility they argue—precisely because its size is independent of income dispersion in the two generations—that one should use the intergenerational correlation coefficient of income, which tells us how many standard deviations the son's income would change in response to a small change in the standard deviation of the father's income. But they do not ask what the relationship is between inequality of economic opportunities and inequality of economic outcomes. Would greater equality of opportunity (e.g. as indicated by a decline in the intergenerational correlation of incomes) reduce inequality in economic outcomes or might it just correspond to greater intergenerational churning of relative positions in the income hierarchy? Does a trend to greater inequality of outcomes, on the other hand, also tend to imply greater inequality of opportunities as the relative advantage—in human capital investment and wealth inheritance—of children borne to affluent parents increases?

In Burkhauser and Couch's examination of intra-generational mobility of incomes in Chapter 21, we do get a hint that summarizing the mobility of an entire society in a single coefficient may be significantly mis-specifying the issue if continued underclass deprivation, middle-class churning, and the retention of elite status are driven by different types of social and economic processes. As they note (p. 539): "The majority of economic mobility occurs over fairly small spans of the distribution of well-being and those at the top of the distribution are less likely to move down." However, most of their discussion examines aggregate indices of mobility which, like Björklund and Jäntti, are devoid of reference to income shares and the frequency distribution of incomes.

Conceptual differences are only part of the ambiguities of "economic inequality." In other instances, measurement drives a different implicit meaning. There has, for example, been an explosion of literature recently (ably summarized by Leigh in Chapter 7), using income tax data which documents the general decline in the income share of the top percentiles of the income distribution in the first part of the 20th century, their rough constancy in the middle decades, and a dramatic divergence in trends between Anglo-Saxon nations and other countries since the mid-1980s. Two major issues in that literature have been: (a) to explain why there has been such a large increase over the last few decades in the share of the top 1 percent in Anglo nations, but not elsewhere; and (b) to understand the increased role of earnings in the incomes of the top percentile. However, while the title ("Inequality and Earnings Distribution") of Blau and Kahn's Chapter 8 sounds like the chapter could have something to say about the latter issue, it cannot help. Their reliance on the "90/10" or "90/50" ratios as summary measures of inequality implies an inherent blindness to what is happening at the 99th percentile,[5] and their dependence on sample survey evidence implies that their data does not reliably capture elite incomes anyway. Implicitly, therefore, when Blau and Kahn say

[5]The 90/10 ratio is of course similarly blind to the fortunes of the 91st to 98th percentile and whatever is happening to the 1st to 9th percentiles—e.g. the lowest paid of Chapter 11.

"economic inequality" they mean "economic inequality among most people"—i.e. those in the middle of the income distribution. Leigh's discussion of the top percentile, on the other hand, invites us to think of the incomes, and possibly the economic power, of the elite few.

Inequality of opportunity, the gap between the elite and the masses, the differentiation of life courses among the majority of the population—these are just a few of the many issues that are part of what people understand by "economic inequality." They are all important—but they are different issues and are important for different reasons. Their differences imply that no one measure of economic inequality can hope to be optimal for all purposes. The moral that I take is that we construct measures of our social reality to help ourselves in solving social problems, and that different measurements and concepts of inequality are appropriate for different problems.

If one is concerned about the concentration of the returns to economic growth in recent years among a small elite, then measurement of the returns to wealth, the inequality of wealth, and the income share of the top percentile is appropriate (Chapters 5, 6, and 7). If the issue at hand is the marginalization of the disadvantaged, then one wants to explain social exclusion and multi-dimensional poverty (Chapters 11 and 13). To analyze how the sum total of output, at a point in time, could be divided, one needs measures of the current inequality of annual money income (Chapters 3 and 4). Discussion of intergenerational inequality of opportunity requires measurement of the association between parental and child outcomes, and the role of the state (particularly the education system—see Chapters 17, 20, and 25), but to analyze inequality of opportunity between men and women, one needs to examine wage ratios in the labor market and time usage within the family (Chapters 12 and 14, respectively). As many of the chapters of this volume demonstrate, these dimensions of inequality are imperfectly correlated, with different causes, consequences, and moral justifications.

It is clear from the data, however, that although they are different, these dimensions of inequality are certainly correlated to some degree and (even if one may not necessarily be able to prove causality to the degree of certainty now demanded in economics journals) causally inter-connected. It is probably a concern with inequality in a general, perhaps initially somewhat vaguely defined sense, that motivated many of the authors in this volume to choose this general area of enquiry in the first place—long before they picked a particular area of specialization for their research. This review therefore ends with a question: Is it the similarities or the differences in economic inequalities that deserve emphasis? Should this volume have been entitled *The Oxford Handbook of Economic Inequality* or *The Oxford Handbook of Economic Inequalities*?

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Reference

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