Volume Introduction

by Neva Goodwin and Frank Ackerman

The hope that economic growth alone will cure poverty, that "a rising tide will lift all boats", has been refuted by events of the late twentieth century. Defying gravity, recent economic tides have flowed uphill, primarily helping those who were already on top. There is, therefore, a need for a deeper examination of the economic theory of the causes, consequences, and cures for inequality.

The goal of *The Political Economy of Inequality* is to bring together the disparate analyses of inequality in economics and related fields, to identify areas where more work is most needed, and to lay the groundwork for an integrated understanding of the causes and consequences of inequality in the U.S. and the world.

This introduction will begin with some notes on our approach to inequality in particular, and to economics in general. The second and third sections discuss the contents of the book from two perspectives: what is excluded, and what is included. Some readers may worry that well-known, important articles on inequality have been overlooked; in fact, a number of articles have been intentionally omitted. A positive description of what is included will then provide a more conventional introduction to the contents and organization of the book. The fourth section explains the place of this book within the six-volume series, Frontier Issues in Economic Thought. Many related issues are dealt with in other volumes, especially the previous one, *The Changing Nature of Work.*

A final section of the introduction explains the statistical measures and terminology that appear in much of this book. Skip that section if you are comfortable with discussion of Gini coefficients and income deciles, and you understand what is meant by the ratio of the 90th percentile to the 10th percentile of personal incomes (and why it is a measure of inequality). If you are puzzled by any of the terms or concepts in the previous sentence, read the last section of the introduction.

Why Political Economy?

The analysis of inequality in this book starts from the tradition of political economy -- a discipline whose name, and roots, go back to Adam Smith. In its early days, the name of the field reflected an awareness that political and economic issues and institutions were closely connected. Today, the term "political economy," having largely fallen out of fashion, is used at times to refer to any of three schools of thought: older approaches to macroeconomics in general; radical or Marxian economics in particular; or a new style of theory that incorporates selected, usually quantifiable, pieces of political science into economics. We would be happy to encourage exploration of all of these directions (though the third, as argued later in this book, runs the risk of reducing politics to a narrow formal scheme).

Our reason for adopting the unfashionable term is to emphasize the close connection between the politics and the economics of inequality. Our approach thus differs from the standard approach of the discipline which, for most of the twentieth century, has shed its overt interest in politics, and simply called itself "economics." Sometimes the name is extended to "neoclassical economics" in contradistinction to the "classical" eighteenth and nineteenth century precursors of the field.

The tools of neoclassical economics are recognized by all concerned to be far more powerful for addressing issues of efficiency than for those of equity. As regards the political economist's concerns, the neoclassical economist deals with the distribution of income in a rather gingerly fashion, focusing on those aspects of the subject that are most amenable to the neoclassical methodology.

Even more striking is the difference with respect to power. While there is relatively little room for this topic in neoclassical economics, a characteristic assumption of political economy is that behind, or connected to, most significant issues of inequality one can expect to find inequalities of power. A related assumption is the expectation that power is often used by its possessors to get more of it. This can involve a competitive struggle among titans, or it can be a process of taking power and other things away from those who have less to start with.

How power will be used depends, in large part, on where it is lodged: in private hands, in impersonal institutions (such as the market), or in more obviously political institutions (such as government). The political dimension introduces the issue of rights, standards of fairness, and ethical judgments. An individual, a firm, or a market may have no direct, formal obligations to other individuals, save to avoid doing harm. In contrast, a government is almost certain to have more extensive obligations to individuals. What rights and entitlements should the government, acting on behalf of society, guarantee to all?

Debate over the questions of rights and entitlements is at the heart of the political process. The fundamental problem of inequality – the reason for articles, books, and analyses on the subject – is that *many people believe that developed societies such as the United States have an ethically unacceptable level of poverty and inequality*. This is, as economists love to point out, a value judgment and not a testable scientific hypothesis. Yet it has inspired vast amounts of scientific and scholarly work on income distribution and related topics – far more than most properly proscribed, testable hypotheses. In particular, that judgment has inspired the editors to produce this book, and has, we believe, inspired most or all of the authors whose work is summarized here.

Seeking to avoid controversial or "unscientific" value judgments, economic theorists have relied heavily on the Pareto principle: *a change can only be regarded as an improvement if no one experiences a loss, while at least one person gains*. This principle is only superficially neutral and value-free, as an extensive debate has shown (see our earlier volume, *Human Well-Being and Economic Goals*). In the attempt to avoid unscientific judgments, neoclassical economics has accepted a principle that gives overwhelming priority to the status quo.

The concerns represented in this volume are, therefore, propelled from outside of economic theory. Community and labor organizations, many religious groups, journalists, and much of the general public see the wide and widening gap in access to resources between the top and bottom of society as a critical defect of the modern market economy. However the economics profession has tended to restrict its analysis of inequality, paying too little attention to why the topic matters, or to serious proposals for action. When economists view inequality as a technical consequence of differences in factor endowments and marginal productivity, it emerges as an inevitable fact of life that is not subject to moral judgment. When they look at inequality as an issue of social preferences,

economists sometimes discuss lump-sum redistribution as a possible, theoretically interesting, response -- but one that bears little or no relationship to the world of practical policy.

Fortunately this narrow framework has begun to loosen up. In the 1990s, parts of the economics mainstream gave a good deal of attention to issues of inequality; we will say more about the mainstream contributions in a moment. The recent high-water mark for recognition of alternative approaches was the award of the 1998 Nobel Prize in economics to Amartya Sen. Sen's contributions to the economics and philosophy of poverty and inequality are mentioned in several places in this book, and were discussed in depth in our earlier volume, *Human Well-Being and Economic Goals.*

What Is Not Included in This Book

It would not be possible for one book to include everything important that has been written about the economics of inequality. In any case, we have not attempted to produce such a book. Our goal is to draw attention to new contributions on the frontiers of economics, highlighting analyses and theories that deserve a wider audience. At the same time we want to acknowledge the importance of many articles on inequality that have appeared in the most widely circulated economics journals in recent years. If we had simply selected prominent recent treatments of inequality, we could have filled this book with articles from the top journals. That might have been a valuable book to produce, but it would have been a different one.

We suspect that most readers of this book can obtain access to the most widely circulated economics journals. Full text of many of them is available for downloading at www.jstor.org, with a delay of a few years after publication. Therefore we have decided not to summarize articles in *American Economic Review, Journal of Economic Literature, Journal of Economic Perspectives, Quarterly Journal of Economics,* and *Journal of Political Economy*.[1] Major contributions that appear in these journals are discussed in our overview essays throughout this book, particularly in Part 1. The bibliography at the end of the book contains complete citations for these and other works mentioned in our essays, as well as for the works we have summarized.

The subject of inequality is an inherently quantitative one, more so than the topics of our earlier volumes. We have included tables and graphs in each of our overview essays to illustrate the issues of inequality, but we have not come close to providing a comprehensive set of data on any of the problems discussed here. That, too, would require an entire, different book. An excellent source for data on inequality in the U.S. is *The State of Working America*, published every two years by the Economic Policy Institute (Mishel, et al. 1999). We have relied heavily on it for our tables and graphs, and thank the authors for permission to reprint many selections from their work. Other data sources are noted on the tables and graphs.

A number of economists, including Anthony Atkinson, Amartya Sen, and others, have analyzed the characteristics of different possible measures of poverty and inequality. This literature typically suggests that the standard measures are inadequate, and that other, less familiar measures would be theoretically preferable. The argument is often persuasive as a matter of pure theory, but remains disjoint from empirical work on inequality. In practice, a few
familiar measures of inequality, above all the Gini coefficient and percentile ratios (both of which

are explained at the end of this introduction), are almost universally used; data limitations generally preclude the use of more sophisticated measures. Therefore we have omitted most of the literature on alternative formulas for measuring inequality. Galbraith (1998), summarized in Part 1, uses one of the alternative measures for wage inequality; yet recognizing its unfamiliarity, he shows that it is highly correlated with the Gini coefficient, in order to justify its use. Nolan and Whelan (1996), summarized in Part 5, discuss interesting new approaches to the definition and measurement of poverty, related to some of Sen's theories.

The boundaries of the literature reviewed and considered for inclusion in this book remain similar to those that applied in our previous volumes. We have attempted to survey books and journals published in English that relate to the political economy of inequality. In a few cases we cite working papers from research institutes, but we have not attempted to survey the universe of working papers in general. The time lags for publication are unfortunately long; our research was almost entirely conducted in 1998.

What Is Included In This Book

What remains after all these exclusions is, hopefully, a coherent story about the theory and reality of inequality. The fundamental problem motivating our work, and the work we discuss, is the abrupt increase in income inequality in the U.S., Britain, and many other countries in the last quarter of the twentieth century. That trend is all the more striking in contrast to the preceding period. In the 25 to 30 years after World War II, average incomes rose rapidly while the distribution of income grew slightly more equal. In retrospect, some economists have called that earlier era "the golden age" – a name that should be interpreted as referring only to aggregate economic performance, not to the more tarnished details of society, culture, or even the distribution of economic resources.

It was easier to be optimistic about the pursuit of equity in the earlier period. Economic growth was lifting the poorest members of society (and everyone else) up to steadily higher levels of consumption. Some inequities of the past would, it appeared, be automatically eliminated by growth; and the rising prosperity seemed to be creating the resources needed to tackle more stubborn problems. All of that changed in the 1970s, in a transformation that Bennett Harrison and Barry Bluestone dubbed "the great U-turn" (Harrison and Bluestone1988). Suddenly the much slower growth of average incomes, combined with a rapidly widening gap between rich and poor, meant that many experienced declining real incomes. At the same time there was a "revolution of declining expectations" regarding the ability of the public sector to cure social ills. In short, the political economy of inequality is a problem much farther from solution than it used to be.

Our treatment of inequality is divided into ten parts. We begin in Part 1 with *the distribution of earnings*, the largest and most often studied component of personal income. Here the mainstream literature makes a substantial contribution, including extensive empirical studies that delineate the problem of rising inequality. However, that literature relies too heavily on unexplained technological change as the *deus ex machina* that is expected to resolve the mystery. Similar technologies are used in countries with very different degrees of inequality. Institutional factors such as the strength of the labor movement and labor legislation are too often neglected, as is the change in corporate strategy in the 1970s – a theme that will recur in several parts of the book. Intergenerational persistence of inequality, a topic that draws on analyses of the labor market, the

family, and the educational system, deserves to receive greater attention.

A major source of intergenerational inequality is, of course, the inheritance of wealth. Part 2 turns to *the distribution of wealth*, which is far more unequal than the distribution of income. The wealthiest 1% of the population holds literally half to two-thirds of many categories of personal wealth; the assets of millions of small investors, and millions of small business owners, pale by comparison. The inequality of wealth differs from one country to another and changes significantly over time, proving that it is not an immutable constant of a market economy. Wealth is important because it generates income; because it provides economic security; and because it is a source of economic power. The relationship of wealth to economic power raises a classic debate: do stock owners or managers control corporations? The sociologists who have written about this (economists have not, in recent years) suggest that owners and top management are socialized into a network of common interests, rather than being separate, competitive groups.

Not everyone at the top of the income distribution got there through success in business or through inheritance. There are numerous celebrities and chief executive officers (CEOs) of businesses who receive multi-million dollar annual compensation. These new paths to the top, or *celebrity and CEO incomes*, are the subject of Part 3. "Winner-take-all" markets are increasingly common in business, professions, sports and other forms of entertainment. Ever-escalating payments to CEOs are defended by the claim that top managers need to own stock in order to identify with stockholders – but the theoretical and empirical literature reaches ambiguous conclusions, and the only certain result is the enrichment of the CEOs. The "economics of superstars" suggests that those who dominate the entertainment world may have little or no greater talent than the second-tier performers. In major league sports, free agency and burgeoning broadcast revenues have allowed star players to command greater and greater salaries, based on measurable but small differences in ability. The common thread through all these stories is that while superstar and CEO salaries may sometimes reflect the individual's marginal revenue, that revenue results from a monopoly position, not from a competitive market-based determination of the value of a person's efforts. The new structure of monopoly positions created in winner-take-all markets is a fundamental source of inequality, and a challenge to standard economic theory.

We complete our look at the top of the distribution of power and income in Part 4, with a discussion of *the effects of corporate power*. Neoclassical economics ignores the issue of power, assuming that it cannot exist in a competitive market. A new approach to economic theory is needed, in which unequal power is recognized as a normal, endogenous result of market relationships. Corporations clearly do exert vast power over their workers, communities, the environment, and the workings of government. A change in corporate strategy in the 1970s, pursuing increased competitiveness by slashing costs and squeezing labor, was the basis for the "great U-turn" and a major cause of the subsequent increase in inequality. At the same time, corporations became more politically engaged, switching from usually passive support of a business-friendly, bipartisan status quo to active backing of extremely partisan conservative interests. Despite the abundant bad news, corporations have been known to do good things, for the environment, for example, or for their customers. A provocative new line of discussion calls for identifying the circumstances under which corporations behave in socially desirable ways, and developing policies to promote and expand those circumstances.

At the bottom of the income distribution we encounter the problems of *poverty*, the subject of Part 5.

The definition of poverty and the description of its effects raise surprisingly complex theoretical issues; deprivation of a society's basic consumption goods may be a better indicator of poverty than lack of money alone. European discussion of poverty has focused on the concept of exclusion, a related but broader measure of nonparticipation in the economic, social, and political mainstream of society. Poverty in the U.S. has worsened since the 1970s, accompanied by an increasingly unsympathetic climate of public opinion and a retreat or reversal of government anti-poverty efforts. Effective responses will require a broad understanding of the political economy of inequality -- along with renewed public sector initiatives, a subject we return to at the end of the book.

There are many dimensions of inequality beyond the obvious categories of rich and poor. Part 6 takes up the crucial questions of *household roles and family structure*. One branch of neoclassical economics, following Gary Becker, has romanticized the dynamics within the household: an all-powerful household head, normally male, earns the market income and distributes it altruistically to meet the needs of all family members. In contrast, feminist economists emphasize the likelihood of divergent goals, inequalities of power and bargaining strength, and the reality of conflict among household members. Empirical research in many cultures shows that family incomes are not always pooled, and that women are more likely than men to spend a pay raise on their children's welfare. Family structure has a clear link to poverty: families headed by single mothers are far more likely to be poor in most cultures; in the U.S. most poor children are in single mother families. Other countries such as Sweden have done far better in alleviating poverty among children and single mothers, through a variety of labor force, child care and welfare policies.

Hypotheses about changes in *skills and technologies* play a large role in the economics of inequality; as a result, policies that address inequality often stress *education* as a route to increased skills. Part 7 addresses these questions. In the 1980s the supply of college-educated workers grew faster than the labor force as a whole, while the earnings of college-educated workers grew faster than average earnings. According to most economists, this proves the existence of technical change that increased the relative demand for skilled work. Yet identifying the precise relationship is difficult: while those who use computers or other new technologies are paid well, correlation does not imply causation. The upsurge in computerization of workplaces came some years after the biggest increases in wage inequality. Similarly, education is widely seen as a route to upward mobility, but it is equally possible for the educational system to preserve pre-existing inequalities. The role of wage-setting institutions and labor legislation must be addressed along with education in order to have a lasting effect on the distribution of earnings.

Categorical inequalities, such as those based on race, gender, or ethnicity, are the subject of Part 8. The inegalitarian legacies of the long traditions of racial segregation and patriarchal society continue to shape the distribution of income today. Racial inequality is increasingly correlated with geographical segregation into separate and unequal communities, where differential resources lead to unequal outcomes for the next generation. Environmental hazards are disproportionately likely to be found in minority communities – not necessarily by cynical choice, but perhaps because the arrival of a hazardous facility makes any neighborhood unattractive, leading those with any resources to move out and those with the fewest alternatives to move in. Cynical choices are more evident in the recent revival of claims of a genetic basis for existing racial differences in income and education; these are no more substantial than in past discredited episodes of pseudo-scientific racism.

Segregation by gender poses some similar and some different issues. The female/male income ratio has been rising, though more of the change in recent years is due to men's average decline than to women's advances. Occupational segregation by gender remains strong almost everywhere, though the definition of men's and women's jobs varies from one country to another. Wage differentials by gender vary as well, with Scandinavian countries having quite narrow wage differentials despite the persistence of occupational segregation. The pursuit of remedies for gender inequality leads to the complex questions of comparable worth and affirmative action; the backlash against affirmative action threatens to undermine the progress that has been made toward both gender and racial inequality.

Inequality on a global scale is the subject of an extensive literature, which we examine in Part 9. The vast differences in average income from one country to another are dramatized in a classic illustration which is updated in Figure 9.1. There is an ongoing debate as to whether countries are converging in income over time; both sides of this debate are represented in interesting analyses summarized in Part 9. Regarding income distribution within countries, Simon Kuznets hypothesized that in the course of development a country would first become less equal, then more. Evidence on the resulting Kuznets curve is weak at best, with persistent differences between developing countries far greater than changes over time within any one nation. The related "environmental Kuznets curve," hypothesizing that pollution first gets worse, then better as a country develops, has led to a literature that is still in its infancy. The prescriptions of conventional economic theory for developing countries, including free trade, privatization, and, when necessary, structural adjustment programs, have varied or ambiguous implications for inequality, as shown in a wide range of research. Political strategies that explicitly pursue equality need not hurt, and if adopted skillfully may even help, the process of development.

Finally, in Part 10 we turn to political responses to inequality, as represented in *the welfare state*. The rise of inequality in the late twentieth century, as noted above, was accompanied by a retreat from belief in the efficacy of state intervention. There are no solid theoretical grounds for this retreat; an inherently imperfect world leaves ample room for conscious intervention and improvement. In the real world, welfare state programs do equalize incomes, and many forms of "interference" with markets, such as minimum wage laws, do not paralyze the private sector. The Anglo-American, continental European, and Scandinavian varieties of welfare states have differing implications for income redistribution, poverty, and welfare, with the first and last, epitomized by the U.S. and Sweden, as polar cases. Sweden's far more humane approach nearly eliminates poverty, incorporating as many people as possible into the world of jobs, social services and institutional supports. In the U.S. the government spends less and accomplishes less in the area of income redistribution, allowing shockingly high levels of child poverty to persist in the midst of affluence. There are many differences between the two countries, notably including the strength of the labor movement; the labor-based Social Democratic Party, which has governed Sweden almost continuously for more than 60 years, is the architect of its welfare state policies. The only important argument for the minimalist American approach to welfare is that it reduces taxes and thereby stimulates growth. Yet Sweden and other Scandinavian countries have not fallen into permanent stagnation, and have recovered from earlier economic slumps with only moderate cutbacks in their public programs. Thus there remains, in practice as well as in theory, a viable choice about the extent and generosity of public efforts to redistribute income.

Frontiers of Economics: The Series

This book is the fifth in a six-volume series, Frontier Issues In Economic Thought. Each volume focuses on a "frontier" area where important new work is being done, but has not yet been incorporated into the standard definition of economics.

A Survey of Ecological Economics (Krishnan et al. 1995), our first volume, explores the new field that is emerging at the intersection of economics and ecological concerns. Important work is being done toward the construction of an economics that recognizes resource constraints and requirements, incorporates the concept of natural capital, and locates economic activity within a biosphere of finite carrying capacity.

The Consumer Society (Goodwin et al. 1996) examines the process and the meaning of consumption, topics that have become the subject of creative recent analyses in many social sciences other than economics. Well-known work by unconventional economists such as Thorstein Veblen and John Kenneth Galbraith has become part of the common understanding of consumption in other social sciences, but ironically has been ignored in mainstream economics.

Human Well-Being and Economic Goals (Ackerman et al. 1997) addresses the underlying philosophical question: which economic goals and activities actually contribute to human well-being? Beyond a minimal level, which developed countries on average have surely exceeded, it is far from obvious that increased consumption of material goods is what people fundamentally need or want. The view of human well-being that is implicit in neoclassical economics rests on a thin and shaky philosophical foundation, which is at odds with virtually all major ethical and religious beliefs.

The Changing Nature of Work (Ackerman et al. 1998) discusses new developments in labor economics and industrial relations, viewed in the light of the ongoing transformation of work in the late twentieth century. It can be considered a companion to the present volume, addressing many of the same themes. The shift toward greater inequality beginning in the 1970s, and the debate over the relative importance of trade, technology, and labor market institutions, make their appearance in *The Changing Nature of Work* and continue in this book. The relative lack of emphasis on labor and the work process in *The Political Economy of Inequality* reflects the fact that we treated these subjects at length in our previous volume.

Our final volume, on the economics of sustainable development, is scheduled for publication in 2001.

Each book has the same format as the one you are reading, and is produced by the same process. We begin with an extensive review of thousands of possible books and articles on our subject, ultimately leading to the selection of 70-90 leading articles and chapters. We summarize them in short, usually 3-page summaries, longer than abstracts but much shorter than the full text. This format allows the reader to get an overview of a range of articles in the field that would be close to inaccessible. We try to represent the authors' points of view, and often phrasing, as accurately as possible, but the

summaries are written by us, not the original authors. We have, however, obtained the authors' approval of the summaries, and have incorporated any changes requested by the authors. Introductory essays by the editors review the field, cite other literature that we have not summarized, and situate the summarized articles within our overview of the subject.

In this volume, for the first time, we have created a combined bibliography of all cited and summarized works at the end of the book. Names of authors whose works are summarized appear in boldface the first time they are mentioned in overview essays.

Measures of Inequality

Inequality is an inherently quantitative subject. The articles and empirical results presented in this book frequently discuss numerical measures of inequality, in order to summarize and compare one distribution of income or wealth to another. As in previous Frontiers volumes, we have attempted to avoid mathematical and statistical jargon, and to summarize in prose the significance of mathematically complex analyses. However, it is impossible to avoid using the standard statistical measures of inequality. The remainder of this introduction explains those measures, for readers who are unfamiliar with them.

How can one measure the degree of inequality in one country's income distribution, and compare it to another country, or to the same country at another time? Theorists have proposed many possible measures, and have debated their relative merits. Yet only two measures are in widespread use: percentile ratios and Gini coefficients. These two measures, and some related terminology, are all you need to know about statistics in order to understand the discussion of inequality in this book.

Both measures of inequality are best understood by imagining that the population is lined up, say from left to right, in order of increasing income. Positions along that line are often expressed in percentiles (hundredths) of the distance from left to right. At the 50th percentile, or halfway along the line, is the person with the median income; that is the definition of the median. To refer to categories of people at different income levels, it is common to divide the line into quintiles (fifths) or deciles (tenths).[2] The leftmost, or poorest, quintile is the group of people between the 0 and 20th percentile positions. The rightmost, or richest, decile is the group of people between the 90th and 100th percentiles. Many of the articles in this book discuss the shares of total income going to various quintiles or deciles of the population.

The simpler of the standard measures, the percentile ratio, takes the income of a person at one position in the line and divides by the income of the person at another position. Most common is the ratio of the income at the 90th percentile to the income at the 10th percentile, sometimes abbreviated P_{90}/P_{10}. An alternative is P_{80}/P_{20}, the ratio of the 80th to 20th percentile. In either case, a bigger ratio means a greater spread between someone near the top and someone near the bottom of the income distribution; that is, a larger ratio means more inequality. Other ratios can easily be created. Some analyses have compared top, middle, and bottom incomes by calculating both the P_{90}/P_{50} and the P_{50}/P_{10} ratios.

A drawback of percentile ratios is that they use information on only two, or a few, points in the

income distribution. The other standard measure, the Gini coefficient, uses the whole income distribution in the following manner. First, find the cumulative share of total income received by everyone up to each income level. That is, for each person in line, calculate the share of total income received by that person and everyone to his/her left. Then graph these shares, as shown in Figure 0.1.

[Figure 0.1 here]

If income were perfectly equally distributed, the graph would look like the diagonal line in the figure: the first 20% of the population would receive 20% of total income, 40% of the population would receive 40%, and so on. On the other hand, if the distribution were perfectly unequal, so that one person got everything, the graph would follow the horizontal axis (indicating no income) until it reached the last person, and then shoot up along the vertical line shown in the figure. Neither of these extremes ever occurs; instead, the graph falls somewhere in between, typically looking somewhat like the curved line in the figure.

The Gini coefficient, or Gini ratio (the terms are used interchangeably), is the ratio of area A to area A+B. It ranges from a minimum of 0 at perfect equality to a maximum of 1 at perfect inequality. A larger Gini coefficient indicates a society that is farther away from perfect equality, or in other words a more unequal society. The shape of the entire curve -- that is, the pattern of income distribution at every level -- clearly affects the relative sizes of A and B, and hence affects the Gini coefficient. The actual Gini coefficients for income distribution reported in this book range from .23 for the most equal European countries to about .60 for Brazil, the most unequal major country.

Since the Gini coefficient conveys more complete information about the distribution of income, why would anyone choose to use percentile ratios? The weakness of the Gini coefficient is that it is sensitive to data on the extremes of the distribution, where under-reporting and measurement errors are thought to be most common. Income data in the U.S., and probably in most countries, are affected by the so-called "top-coding" problem. Census Bureau surveys, from which most income distribution data are derived, have limited categories and a fixed number of digits for recording individual incomes. Incomes above the highest category are arbitrarily coded as falling at the top of that category. Years ago, when six-figure salaries were almost unheard of, incomes were top-coded at $99,999. In 1993 the top code was raised from $299,999 to $999,999, causing an artificial jump in the Gini coefficient due to more complete reporting on the highest-income households. (Some incomes at the very bottom may suffer from problems of intentional or accidental under-reporting, although this is less widely discussed.)

Percentile ratios avoid the problems of top-coding, and of sensitivity to the extremes of the distribution in general. The individual at the 90th percentile of the income distribution is far below the level at which top-coding occurs. Thus the P_{90}/P_{10} ratio, although reflecting much less information about the overall distribution, is more reliably and entirely based on actual income measurements, free of statistical quirks.

For many purposes these two measures yield qualitatively similar results. Table 1.4 presents both Gini coefficients and P_{90}/P_{10} ratios for many countries, allowing a comparison of the two standards. The ranking of countries by the two measures is very similar, though not quite identical.

Notes

1. One exception, for a valuable and little-noticed argument that does not appear elsewhere, is included in Part 9.

2. There is a slight inconsistency in the terminology as it is typically used. A percentile could conceivably refer to a range; e.g., the 50th percentile could refer to everyone who is between 49% and 50% of the way from left to right. In common usage, however, the 50th percentile refers to the one person who is exactly 50% of the way along the line; that is, percentiles are interpreted as points, not ranges. Quintiles and deciles, on the other hand, typically refer to ranges, not points. The fifth decile is understood to mean everyone who is between the 40% and 50% positions, and similarly for other deciles and quintiles.