

CHAPTER Be

Economic Inequality and Poverty

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THE DISTRIBUTION OF INCOME AND WEALTH

Peter H. Lindert

Societies are sometimes as concerned about differences as they are about averages. In particular, there has been a long-standing political interest in the issue of how income and wealth are distributed, and how this distribution has changed over time.

Measuring Inequality

The study of income and wealth distribution has been historically motivated by debates over how unequally resources have been distributed and why the distribution is unequal. Estimates of the degree of inequality take the form of size distributions from which summary measures of inequality are derived.

A size distribution of any attribute ranks individuals by how much of that attribute they have, starting with those having it least and proceeding to those having it most. Figure Be-A portrays a conventional summary of a size distribution, in this case a distribution of income. Arranging individuals from the lowest income individual to the highest income individual, and plotting the cumulative share of total income that the lower income group has, traces out a Lorenz curve.

Three summary measures that capture the degree of inequality in this size distribution are (a) top-group income shares, (b) interpercentile income ratios, and (c) the Gini coefficient of inequality. All three kinds of inequality measures are used here to summarize the degree of inequality in the size distributions of income or wealth.¹ Each measure is illustrated in Figure Be-A:

An example of a *top-group income share* is that the top 5 percent of individuals received 32 percent of total income (100 percent minus 68 percent).

Acknowledgments

Linda Barrington and Gordon Fisher thank the following people for research assistance in compiling the tables in this chapter: Mousumi Bhakta, Sumi Gupta, Liam Kavanagh, Bernadette Moton, and Kavita Vashi. Advice and assistance were provided by Caroline Carbaugh and Joe Dalaker, U.S. Census Bureau, in the construction of Table Be371–398. Funding support was provided by the Russell Sage Foundation. The views expressed in this chapter are those of the authors and do not represent the position of the Conference Board or of the U.S. Department of Health and Human Services.

An *interpercentile income ratio* is a ratio of a higher percentile income to a lower percentile income. Its usefulness lies in its focus on two known positions on the income spectrum, or Lorenz curve, when the rest of the curve is unknown or less accurately measured. For example, the ratio of the income of an individual at the 95th percentile to the median (50th percentile) income summarizes inequality between these relative ranks. In the figure, this interpercentile income ratio is the ratio of the two slopes shown at the 95th and 50th percentiles of individuals, since each slope shows the relative income of an extra person at that point in the rankings.

The *Gini coefficient* adds up the share of total income that would have to be redistributed to achieve complete equality, assuming that were possible. Because perfect equality is represented by the 45-degree line, the shaded area is a measure of how far the size distribution, the Lorenz curve, departs from complete equality. The Gini coefficient is that shaded area measured as a share of the whole area below and to the right of the 45-degree line. If there were complete equality (so that the Lorenz curve was the 45-degree line itself), the Gini coefficient of inequality would be zero. If one top individual had all the income, the Gini coefficient would be one.

Difficult questions can and should be raised about the concept of a measurable degree of inequality. The first question is: “Inequality over what time span?” Many people probably envision inequalities of income or consumption over entire lifetimes, yet data limitations force the use of incomes within a single year or wealth at a single moment in time. Some of the inequality among individuals in any one year or at any one moment is temporary and only indirectly reflects how unequal they will be over their entire life spans. A second question is: “Inequality of what?” Given that we have only single-year or single-moment measures, should we use income or wealth or consumption, and should the inequalities be measured before or after taxes and transfer payments? None of these economic indicators is a complete measure of individual well-being, which would have to include health and other nonmonetary dimensions. A third difficult question is: “Inequality among whom?” Is the relevant population unit really an individual, of any age? Because people typically share resources within households, a case could be made for measuring income or wealth among households rather than among individuals. If the household unit is chosen, then

¹ For an advanced treatment of the mathematical properties and problems of alternative inequality measures, see Atkinson and Bourguignon (2000), especially Chapters 1 and 2.

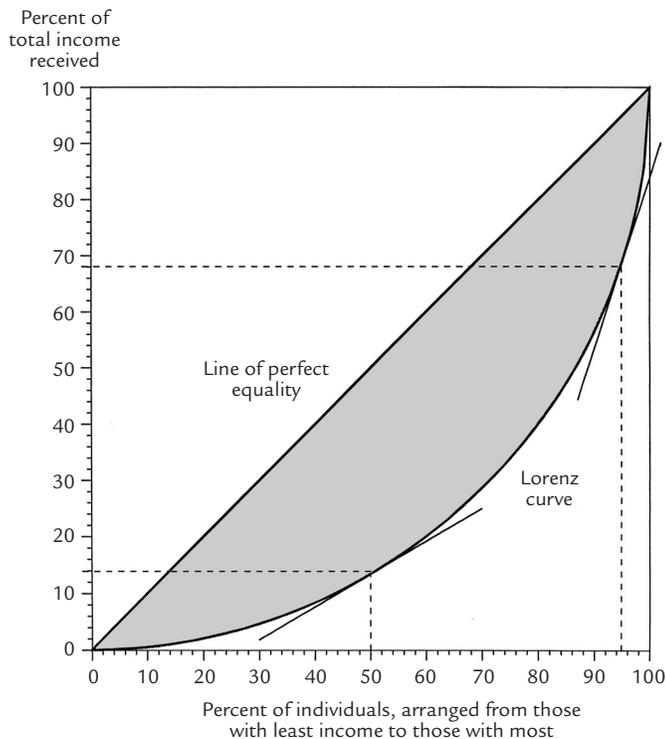


FIGURE Be-A A size distribution of income, portrayed by a Lorenz curve

how should the measure of resources be adjusted for the numbers and ages of the persons sharing those resources? This chapter takes the approach of looking at household (or family) units.

Another major caution about measures of the size distribution of income is that they cannot directly measure the justice or injustice of that distribution. In other words, inequality is not a measure of injustice. Two illustrations of this important distinction relate to the historical series chosen for presentation here.

First, one might wish to know the extent to which income inequality reflects differences in work. Higher incomes can result from longer hours worked per earner or from more earners in the household. Many people would react differently to inequalities based on differences in work than they would to inequalities based on different rewards for the same amount of work. It would be desirable to have historical time series that decompose differences in household income into differences in paid work time versus differences in rates of pay per hour worked. Yet such time series still have too short a time span to be presented here. The exception is Table Be67–84, which shows some ways in which median and mean incomes relate to the number of adults and the number of earners in the family since 1947.

Second, one might wish to know the extent to which each earner's rate of pay, and each household's income, relates to its race, ethnic origin, market work of spouse, or sex of household head. Decades of debate and quantitative studies still have not resolved the controversy over the degree to which such differences have produced income differences through discrimination. Accordingly, this chapter presents differences in median and mean income by race, Hispanic origin, and sex of the householders (Tables Be55–84), with the caution that they cannot directly resolve the issue of how justly income or wealth was distributed in the past.

The History of Measuring Income and Wealth Distributions in America

The development of detailed and informed estimates of the distribution of income and wealth had to wait upon the development of basic income, wealth, and population measures by the Census Bureau, the Internal Revenue Service, other government agencies, and private survey organizations. Only since 1913 has there been the combination of income tax returns, wealth tax returns, nationwide household surveys, and census questions about income.² To survey that development, let us begin with the relatively data-rich era since World War II and work back into the relative statistical darkness of the earlier history.

The Current Population Surveys and Related Survey Data since World War II

Since World War II, the measurement of family income has been advanced by a wide array of household surveys. The decennial censuses themselves asked direct income questions, which were preceded by the pioneering attempt of the 1940 census to measure the labor-earnings component of income. Various government agencies continued to survey household income and expenditures in occasional benchmark years. The income tax returns of the Internal Revenue Service took on a new relevance after World War II as the share of households filing income tax returns had shifted from less than 10 percent to more than two thirds. The Social Security Administration also began to develop earnings series for those persons covered under the Old-Age, Survivors, Disability, and Health Insurance (OASDHI) program. The Survey Research Center of the University of Michigan also developed distributions of income for the 1945–1969 period as part of its Survey of Consumer Finances. These different sources could be used to cross check and adjust the weaknesses of each.

The central postwar data set, backed by all these others, is the Census Bureau's Current Population Surveys (CPS), which cover a vast range of demographic, social, and economic characteristics of households and persons. Since 1947, the CPS has included a fairly consistent concept of total money income, measured as all income received in cash, but excluding all income in kind, whether transfer-in-kind from government programs or the household's direct use of goods and services from a business.³ The CPS yields the conventional estimates of top-group income shares and Gini coefficients, presented in series Be1–15.

Abundant and detailed as these estimates are, the size distributions they yield are subject to all the caveats noted previously, plus one particular caution. This caution relates to the "top-coding" problem with the CPS measurement of money income. The Census Bureau estimates do not record the amounts of income within the top income class. To produce and publish income distribution data, the Census Bureau values all household incomes in the top

² Much of the history of early attempts to measure the distribution of income has been detailed in *Historical Statistics of the United States* (1975), Part 1, pp. 284–8.

³ The types of nongovernment noncash benefits excluded from the "money income" measure include goods produced and consumed on the farm, the family or household use of business transportation and facilities, full or partial payments by business for retirement programs, and medical and educational expenses.

class at the *bottom income* of that top class.⁴ For a household member's earnings from longest job, this floor of the top income class was \$50,000 for 1967–1976, then \$100,000 until it was raised to \$300,000 effective in the March 1985 survey, and then to \$1 million effective in the March 1994 survey. Clearly, this gives an incomplete view of top incomes.

To gain an impression of the size distribution of income that minimizes the top-coding problem, one can use the fact that the Census Bureau's occasional raising of that top category's floor income has always kept the share of households in that top class below 5 percent of the population. To avoid the effects of top-coding, one can consult series Be16–18, which present interpercentile ratios involving only the 95th, 80th, and 20th percentiles, avoiding the measurement of incomes higher than the 95th percentile.

Income Distributions for 1913–1947

Before the CPS and other systematic annual surveys, government agencies and independent scholars developed credible top-group income shares and even some Gini coefficients from an eclectic data base. A pioneer in these efforts was Simon Kuznets, whose *Shares of Upper Income Groups in Income and Savings* made detailed adjustments to income tax returns to estimate the top-group income shares for 1913–1948 shown in Table Be19–20 (Kuznets 1953). The most widely used estimates spanning the intermediate period from 1929 to 1971 originated in the work of Selma Goldsmith and the Office of Business Economics (OBE) (see Table Be21–26).⁵ Neither the Kuznets tax-based estimates nor the eclectic OBE-Goldsmith estimates are known to contain the same top-coding problem found in the later CPS estimates. Similarly, the Piketty-Saez estimates of top income shares among tax units between 1913 and 1998 do not contain this problem (see Table Be27–29).

Before 1913, we lack systematic income distributions because the pre-1913 income tax episodes were very brief and covered only the very highest incomes. For this reason, conjectures about the distribution of economic resources among households before 1913 have to be based on the distribution of wealth, not of income.

Wealth Distributions since 1916, and for Earlier Periods

Since 1916, national taxation on wealth has also yielded top-group shares and Gini coefficients. Systematic estimates by Robert Lampman for the 1922–1956 period have been adjusted and updated by Edward H. Wolff and Marcia Marley.⁶ The top-group shares and Gini coefficients are presented in Table Be39–46.

For the long era before World War I, more data survive on national wealth distributions than on national income distributions. A special tax survey of 1798 asked households and other occupants about the value of the real estate they occupied. The Census of 1850 asked people about the total value of the real estate they individually owned, and the Censuses of 1860 and 1870 supplemented these questions with additional queries about the value of their

“personal estate” (all assets other than real estate).⁷ Aside from these government-generated national returns, the other important estimation of the national distribution of wealth is Alice Hanson Jones's analysis of 919 probate inventories for the thirteen colonies from around the year 1774 (Jones 1977, 1980). Table Be39–46 provides top-group wealth shares and wealth Gini coefficients from these national data sets.

Many other early wealth distributions have been estimated at the state and local levels. The most comprehensive of these is the Steckel-Moehling study of assessed wealth in Massachusetts from 1820 to 1910, summarized in Table Be47–54. Beyond this Massachusetts data set, there are numerous studies of the wealth distributions of regions, cities, and towns extending back to the seventeenth century.⁸

Apparent Long-Run Movements in the Inequality of Income and Wealth

Scholars and news media have long used estimates like those discussed earlier to support conjectures about trends in America's income and wealth gaps. Subject to all the warnings previously noted, one can indeed see some likely trends in the shares of income or wealth received by the top income ranks. To survey these likely trends here, let us start with the earliest, most poorly documented, era and work toward the present.⁹

The Colonial Era

That paucity of data for the thirteen colonies makes it very hazardous to judge movements in the distribution of income and wealth before the 1770s. The only time-series data that even hint at an overall distribution are those local samples of assessed or probated wealth, buttressed by occasional population censuses. The scattered data offer divergent hints about trends in the colonies.

In the South, one particular force must have raised the inequality of wealth across the colonial era. Slavery meant that slaves had essentially zero wealth or disposable income, while the slave owners had extra wealth equal to the market value of the expected profits from slaveowning. Over the colonial period, slaves rose as a share of the Southern colonies' population, from about 7.3 percent in 1680 to 39.3 percent by 1770. Such a great rise in the importance of slavery must have magnified the relative wealth of the richest groups, as well as the share of households having zero wealth. Beyond this observation, however, we lack any time series for the distribution of wealth over the Southern colonies.

In the Middle Atlantic and Northern colonies, the available estimates of the distribution of taxable or probated wealth do not reveal any clear trend in the share held by the richest groups. Wealth inequality seemed to rise in some seaboard regions but not in others, and the westward drift of population was a drift toward areas where land and other wealth were more equally held. On balance, one

⁴ A complicating detail is that the dollar brackets refer to CPS questions about kinds of income, not about total household income. The most important kind of income, that from earnings from each household member's longest-held job, is featured here.

⁵ For details on the Goldsmith-OBE estimates, again see *Historical Statistics of the United States* (1975), Part 1, pp. 284–8.

⁶ Lampman (1962); Wolff and Marley (1989); Wolff (1994); Wolff (1995); and Wolff (in press), cited in the text for series Be39–46.

⁷ For extensive analysis of these source materials and the distributions they imply, see Soltow (1989) and (1975).

⁸ For a survey and analysis of the local studies of early wealth by Bruce Daniels, Allan Kulikoff, Gloria Main, Jackson Turner Main, Gary Nash, Daniel Scott Smith, and others, see Williamson and Lindert (1980), Chapter 3.

⁹ This section draws on the following interpretive surveys of the trends: Williamson and Lindert (1980); Smolensky, Plotnick, et al. (2000); and Lindert (2000). It also uses the studies cited in the earlier footnotes of this chapter, especially when interpreting trends before 1929.

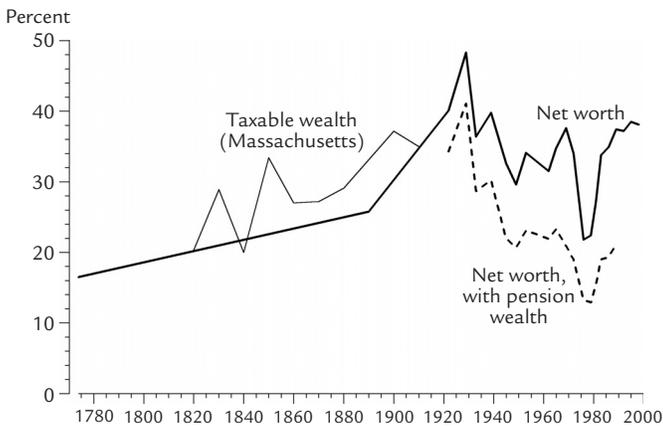


FIGURE Be-B Shares of wealth held by the richest 1 percent of households: 1774–1998

Source

Series Be40, Be43, and Be49.

cannot say whether there was any trend toward, or away from, unequal wealth across the colonial era.

Between 1774 and 1929

Statistical darkness also hangs over the whole century and a half between the end of the colonial era and the eve of the Great Depression.¹⁰ Our best clues are the wealth distribution estimates introduced previously and summarized in Tables Be39–54. Two of these series are shown in Figure Be-B. They suggest that wealth inequality rose over this long period, both in Massachusetts and for the nation as a whole. One cannot yet say how much of this net change occurred before the Civil War, but it is likely that there was some widening of wealth inequality across the whole of the nineteenth century. It is hard to imagine that in the 1770s colonial households were as unequal in their wealth or income as their descendants would become by 1929.

America's long rise of inequality before 1929 seems to testify more to the unusual equality of wealth in the Middle Atlantic and Northern colonies and states in the late eighteenth century than to any unusual degree of inequality, by international standards, in the twentieth century. In particular, Britain, France, and Holland had a less pronounced rise in inequality over the same century and a half, mainly because they started from a position of greater initial inequality not shared by the emerging frontier society of America.¹¹

The Leveling Era, 1929–1953

All the available series point to a major narrowing of the gaps in income and wealth over roughly the second quarter of the twentieth century. The change was apparently related to a fundamental shift in earning power in favor of low-paid occupations. This leveling, documented and publicized by Simon Kuznets, became a key

¹⁰ The discussion here focuses on 1929 as a possible all-time peak year for inequality in the distribution of American income and wealth. It may have been the case, however, that inequality was just as high in 1913–1914, on the eve of World War I, as in 1929. The year 1929 is featured here for want of sufficient data on inequality in 1913–1914.

¹¹ The trends of British income and wealth inequality are summarized in Lindert (2000). On French inequality movements, see Morrisson and Snyder (2000). On inequality in Holland up to 1808, see van Zanden (1995).

exhibit in his suggestion that inequality declines in the later stages of economic development, on the downside of what subsequently became known as the Kuznets curve of rising and falling inequality.¹² It is likely that the equalization was even greater in terms of disposable income, or income after taxes and transfers, than it was in the pretax income distributions featured in this chapter.

A Renewed Rise in Inequality, 1977–1995

After a quarter century without any clear trend in income inequality before or after taxes and transfers, a new widening of income and wealth gaps set in between about 1977 and about 1995. Part of this rise in inequality took the form of another fundamental shift in the earning powers of different occupations, this time an inegalitarian shift. The rest of the rise took the form of shifts in the distributions of income earners and working hours across families. In particular, between 1977 and 1995 there was a shift toward dual-career households, with men and women of high earning power tending more and more to be married to each other, adding to the inequality of total household incomes.

A natural historical question about these trends is whether the inequalities reached by the 1990s were as wide as those back in 1929, another date that might have qualified as a historical peak in inequality. Some of the series in this chapter suggest that the inequality of 1929 was not regained in the 1990s as indicated by the wealth inequality measures that include pension rights in the measure of wealth. Similarly, the America of the 1990s would look less unequal than the America of 1929 if one factored out the effects of the shift toward high-income dual-career couples, which is not a shift in basic rewards for different occupations. On the other hand, other measures suggest that the distribution of income and wealth in the 1990s may have returned to the historic 1929 peak of inequality. Figure Be-C illustrates this possibility by looking at pre-tax income ratios that are free from the top-coding data problem described earlier. It appears that the ratio of a 95th-percentile income or an 80th-percentile income to the median (50th-percentile) income may have been as unequal in 1995 as the corresponding ratio for 1929.

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¹² Kuznets's classic conjecture of a rise-and-fall pattern for inequality was presented in his presidential address to the American Economic Association (1955).

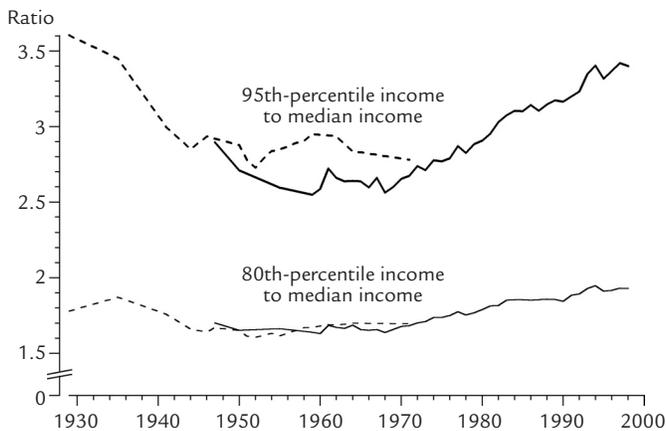


FIGURE Be-C Income inequality – ratios of high-percentile income to the median income: 1929–1998

Source

95th income percentile: series Be16 and Be24. 80th income percentile: series Be17 and Be25.

Documentation

See the text for Tables Be1–18 and Be21–26 for the differences between the series displayed here.

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POVERTY

Linda Barrington and Gordon M. Fisher

*Give me your tired, your poor,
Your huddled masses yearning to breathe free.¹*

American historical myth, especially that of the nineteenth and twentieth centuries, is heavily laden with economic advancement –

¹ “The New Colossus” (1883) by Emma Lazarus, mounted in the base of the Statue of Liberty in 1903.

streets paved with gold and opportunity waiting around every corner. Horatio Alger penned such stories; John D. Rockefeller and Bill Gates embody them. Such anecdotes provide proof for the faithful but hardly a complete chronology of the economic condition of Americans. In reality, how big was the pool of poverty from which the fictional Horatio Alger characters rose? Without a definition of poverty across time, or a count of population therein, the odds of rising above poverty cannot be calculated, and the truth of the myth cannot be tested.

As the United States enters the new millennium, the changing population demographics are dramatic. As of the 2000 U.S. Census of the Population, African Americans are no longer the single largest minority population – the Hispanic population has pulled even. The percentage of the population that is foreign-born again registers in the double digits. One out of ten Americans lives in a state with a “majority minority” population. How pertinent has the American myth been for demographic minorities in the United States? Which Americans face what odds of being poor?

The implicit social contract of capitalism assigns the individual the responsibility of supporting herself in exchange for the ownership of (or property rights to) the additional value that she produces for society. The incidence of poverty is one measure of how well that contract is succeeding.

Although widely accepted time-series estimates exist for gross national product or consumer prices for periods of over a century, an official measurement of America’s poor exists only for the last four decades. This is the first volume of *Historical Statistics of the United States* to contain statistics on poverty. At the time of the last edition (1975), the U.S. Census Bureau had been publishing national poverty statistics for less than a decade – not long enough to produce an “historical” series. Now, however, the official series of poverty statistics for the United States covers some four decades. Information on poverty in earlier decades, unfortunately, is still limited. The data series in this chapter compile the official poverty statistics covering the period 1959–1999; some earlier unofficial poverty lines and poverty population estimates are also presented.

The data series on poverty in this chapter are presented in two sections: the first documents the dollar levels that define poverty, and the second, who is poor. The first group of poverty tables answers the question, “What are the income levels below which people are classified as poor in the United States?” (Tables Be85–259). The second group answers the question, “Who and how many are poor?” (Tables Be260–411). These tables present poverty counts, poverty rates, and statistics showing the composition of poverty. The poverty *count* is simply the number of persons or families who are classified as poor. The poverty *rate* is the prevalence of poverty among select demographic groups (for example, what percentage of whites is poor?). The *composition of poverty* tells what share of the poor a certain demographic group comprises (for example, what percentage of the poor is white?).

Note that poverty and inequality, while related, are distinct concepts with separate measures and unique historical trends (see the essay in this chapter on inequality). If the poor are defined as those households with incomes below one half the median household income, it is possible for income to be distributed so equally that no one is poor, as historically has been proven by Sweden. Alternatively, defining poverty independent of contemporary living standards can result in almost universal poverty regardless of the income distribution. Such would be the case, for example, if a modern-day poverty line were simply projected backward to the