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Working Paper

American inequality and its consequences

LIS Working Paper Series, No. 339

Provided in Cooperation with:

Luxembourg Income Study (LIS)

Suggested Citation: Burtless, Gary; Jencks, Christopher (2003) : American inequality and its consequences, LIS Working Paper Series, No. 339, Luxembourg Income Study (LIS), Luxembourg

This Version is available at:

<https://hdl.handle.net/10419/95399>

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Luxembourg Income Study Working Paper Series

Working Paper No. 339

American Inequality and Its Consequences

Gary Burtless and Christopher Jencks

August 2002



Luxembourg Income Study (LIS), asbl

American Inequality and Its Consequences

by

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and

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March 5, 2003

We gratefully acknowledge the helpful research assistance of Molly Fifer and Alice Henriques of the Brookings Institution and Andrew Clarkwest of Harvard University. We are also grateful to David Jesuit and Timothy Smeeding for providing tabulations of Luxembourg Income Study data and to Jesuit, Smeeding, the editors, and an anonymous referee for helpful comments on an earlier version of this paper. This is a draft chapter for the forthcoming book Henry J. Aaron, James M. Lindsay, and Pietro Nivola, eds., *Agenda for the Nation* (Washington: The Brookings Institution, 2003). Please do not quote without permission of the authors.

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Synopsis
American Inequality and Its Consequences

by

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This paper describes how the distribution of income has changed in the United States since the 1970s, why it has changed, and why it is more unequal than the distribution of other rich democracies. It then assesses evidence on whether changes in economic inequality affect four other things that Americans care about—economic growth, equality of opportunity for children, longevity, and the distribution of political influence.

We conclude that inequality probably does not have a consistent effect, either positive or negative, on economic growth in rich democracies. We show that college attendance became more related to parental income as economic inequality increased in the United States. Nonetheless, evidence does not show that a father's economic status has more influence on his children's economic prospects in the United States than in other rich countries where incomes are more equal. Increases in economic inequality probably slowed the rate of improvement in longevity, but the effect is uncertain and small, probably only a few months. We also consider the impact of economic inequality on the distribution of political power. We argue that increases in economic inequality tend to increase the political power of the rich, at least in the United States.

Overall, we conclude that the effects of inequality on economic growth, health, and equality of opportunity are modest and uncertain in rich countries. We worry most about the possibility that changes in the distribution of income have led to changes in the distribution of political power both because such a change undermines the legitimacy of the political system and because it can make the increase in economic inequality irreversible. But although we worry about these risks, we have no way of knowing how great they are. We conclude that citizens of the United States and other rich countries should decide how much economic inequality they are willing to tolerate largely on the basis of what they think is just, not on the basis of its alleged beneficial or adverse effects.

Chapter 3**American Inequality and Its Consequences****Gary Burtless and Christopher Jencks**

Income inequality has risen sharply in the United States over the past generation, reaching levels not seen since before World War II. But while almost two-thirds of Americans agree with the statement “income differences in the United States are too large,” policies aimed at reducing income differences command relatively little popular support.¹ In most rich countries sizable majorities “agree strongly” that the government ought to guarantee each citizen a minimum standard of living. Only one American in four agrees strongly with this proposition.² The same pattern holds in Congress, where legislators show little interest in policies aimed at taxing the rich, raising the wages of the poor, taxing inherited wealth, or guaranteeing shelter and health care to all Americans.

One possible explanation for this apparent paradox is that, while most Americans think income inequality is too high, most also distrust the government and attribute America’s economic success to the fact that its economy is lightly regulated. A second possible explanation is that, while most Americans think income inequality is too high, they worry far more about abortion, crime, immigration, and the environment than about inequality. If those who benefit from inequality give money to candidates who protect their economic interests, while those who think inequality is too high mostly vote on the basis of noneconomic issues, legislators will protect the economic interests of the rich and the noneconomic interests of everyone else.

We begin by describing how the distribution of income has changed in the United States since the 1970s, why it has changed, and why it is more unequal than the distribution in other rich democracies. We then assess the evidence on whether changes in economic inequality affect

four other things that Americans care about—economic growth, equality of opportunity for children, longevity, and the distribution of political influence. We conclude that inequality probably does not have a consistent effect, either positive or negative, on economic growth in rich democracies. We show that college attendance became more related to parental income as economic inequality increased in the United States. Nonetheless, evidence does not show that a father's economic status has more influence on his children's economic prospects in the United States than in other rich countries where incomes are more equal. Increases in economic inequality probably slow the rate of improvement in longevity, but the effect is very small, probably only a few months.³ We also consider the impact of economic inequality on the distribution of political power. We argue that increases in economic inequality tend to increase the political power of the rich, at least in the United States. Overall, we conclude that the effects of inequality on economic growth, health, and equality of opportunity are modest and uncertain in rich countries. Accordingly, citizens of these countries should decide how much economic inequality they are willing to tolerate largely on the basis of what they think is just, not on the basis of its alleged beneficial or adverse effects.

How Has the Distribution of Income Changed in the United States?

The Census Bureau did not begin asking Americans about their incomes until 1940. The best pre-1940 data are based on tax returns. These data indicate that the share of income going to the richest 10 percent of Americans fell dramatically during the first half of the twentieth century, was flat from about 1952 to 1973, and began to rise after 1973, sharply after 1981.⁴ Before World War II the richest 10 percent typically got 40 to 45 percent of all income. From 1952 to 1973 their share was about 33 percent. In the late 1990s their share averaged 41 percent

of total income.

Census surveys miss much of the income received by people in the top 2 percent of the distribution, but they provide better evidence about the incomes of those in the middle and near the bottom. Figure 13-1 shows the ratios of incomes at the ninety-fifth and the fiftieth percentiles of the family income distribution and the ratio of incomes at the fiftieth and twentieth percentiles. The top line shows that the proportional difference between well-to-do and middle-income American families was lower in the late 1950s than in the late 1940s and that there was no clear trend between the late 1950s and the late 1960s, which is consistent with tax data. After 1969 the proportional gap between the ninety-fifth and fiftieth percentiles began to widen steadily. The apparent jump in inequality between 1992 and 1993 is partly due to a change in the Census Bureau's Current Population Survey that led to better measurement of rich families' incomes. Even if we exclude this jump, however, the gap between the ninety-fifth and fiftieth percentiles rose by about a quarter between 1970 and 2001. That, too, is consistent with tax data on the share of total income going to the top 10 percent.

[figure 13-1 about here]

The lower line in figure 13-1 shows the ratio of family incomes at the fiftieth and twentieth percentiles. There was no clear trend from the late 1940s to the late 1960s. The gap widened from 1969 to 1989, just as it did in the top half of the distribution. But unlike the gap between the top and the middle, the gap between the middle and the bottom showed no clear trend after 1990. Nonetheless, figure 13-1 suggests that the overall increase in inequality since 1969 has not been driven solely by the spectacular gains of the rich. At least in the 1970s and 1980s, disparities widened throughout the income distribution.

Nonetheless, the spectacular increase in the incomes of the richest Americans accounts

for much of the growth in economic inequality since 1980. The Congressional Budget Office has combined census and tax data to examine trends in the after-tax distribution of income. Its analysis shows that the richest 1 percent of American households raised their share of after-tax income from 7.5 percent in 1979 to 13.6 percent in 1997. Meanwhile, the share going to households between the eightieth and ninety-ninth percentiles only rose from 35.2 to 36.2 percent. This pattern is not obvious in census data, partly because the Census Bureau defines income more narrowly and partly because census respondents seriously underreport their income from assets. The Congressional Budget Office findings confirm the analysis of tax returns that most of the rise in the gross income share received by the top 10 percent of Americans actually went to the top 1 percent.⁵

We can use Census Bureau tabulations of family income to estimate changes in purchasing power (income adjusted for inflation). For this purpose, the postwar era falls into two distinct periods: before and after 1973. Figure 13-2 shows the average annual gain in purchasing power among families in different parts of the distribution for each period. Between 1947 and 1973, real incomes rose fastest near the bottom of the distribution and slowest near the top. After 1973, growth slowed in most parts of the income distribution, but it slowed most at the bottom. Only the top 5 percent of families gained as much per year after 1973 as before. Income growth between 1973 and 2001 was six times faster for the top fifth than for the bottom fifth of families.

[figure 13-2 about here]

Like all estimates of the change in people's real income, the estimates in figure 13-2 are sensitive to one's choice of a price index. The goods and services available in 2001 were very different from those available in 1947. No price index can make 1947 dollars truly equivalent to 2001 dollars. Nor is there any consensus about the best procedures for measuring price changes.⁶

Fortunately, however, one's choice of a price index does not affect conclusions about inequality.

A more serious problem for measuring changes in inequality is adjusting for shifts in the size of American families. Figures 1 and 2 ignore the fact that American families have been getting smaller. The average American family had 3.6 members in 1947, 3.4 members in 1973, and 3.1 members in 2001. Because family size shrank about 0.3 percent a year, income per family member would have increased 0.3 percent a year even if families' average income had not changed at all. In addition, a growing percentage of Americans live alone or with someone who is not a relative. The incomes of these unrelated individuals are excluded from the Census Bureau's tabulations of family income. One reason more Americans live alone is that more of the elderly can afford to maintain their own household instead of living with their children. Another reason is that the young are waiting longer to marry and start families. Of course, living alone carries a price. Two people who live alone need more kitchens, bathrooms, furniture, and household appliances than two people who live together. It is not surprising that households with high incomes on average also have more members than households with low incomes, so some of the income gap between high- and low-income families disappears if we calculate each family's income per person. On the other hand, household size has declined a bit faster in households with above-average income than it has in households with below-average income, implying a greater trend toward inequality if income is measured on a per person rather than a per family basis.

One way to deal with changes in family size is to estimate the change in expenditure required to hold living standards constant when a family gets larger or smaller. In principle, such an adjustment allows us to calculate "equivalent" incomes for households of different sizes. One popular adjustment, which we use, assumes that a household's spending requirements increase in

proportion to the square root of the number of household members.⁷ Under this assumption, a family of four needs twice as much income as a single individual living alone to achieve the same standard of living.⁸ If this adjustment is valid, the 14 percent decline in family size between 1947 and 2001 implies that families typically needed 7 percent less real income in 2001 than in 1947 to enjoy the same standard of living.

The income data in figure 13-1 are also limited to pretax money income. Ignoring a family's tax liabilities overstates the resources it has available for consumption. Focusing exclusively on money income ignores the fact that some families own their home mortgage-free, while others must make monthly rent payments, as well as the fact that some families receive food stamps, rent subsidies, and other noncash transfers. Because noncash benefits expanded dramatically between 1965 and 1979, ignoring them understates gains near the bottom of the distribution during these years. Since 1979 the Census Bureau has tried to remedy some of these problems by estimating each family's income and payroll taxes and by asking households about noncash income. Unfortunately, such data are unavailable for years before 1979, when noncash income grew fastest.

In figure 13-3 we report income trends in a way that eliminates some of the problems in the official census statistics. The chart shows income growth since 1979 at the tenth, fiftieth, and ninety-fifth percentiles of the "household-size-adjusted" distribution of personal income. Our sample includes all individuals except those who live in institutions. We adjust each person's household income to reflect differences in household size. The top panel shows growth in size-adjusted household income after taxes and transfers, including the value of food stamps and means-tested housing subsidies. (We do not include the value of owner-occupied housing or medical care subsidies, because such imputations are unreliable.) Like figure 13-1, figure 13-3

shows that inequality grew after 1979. But whereas figure 13-1 shows no change in the gap between the bottom and the middle during the 1990s, figure 13-3 shows that, once we replace families with households, adjust for changes in household size, subtract taxes, and add noncash benefits, the gap between the bottom and the middle narrowed significantly during the first half of the 1990s. The gap between those at the top and those in the middle of the distribution continued to widen after 1993, just as is shown in figure 13-1.

[figure 13-3 about here]

The lower panel in figure 13-3 shows trends in “market” income, which we define as income before taxes are subtracted and government transfers are added. Market income includes income from self-employment, wages, interest, dividends, rents, and private pensions. It does not include income from public assistance or Social Security. Year-to-year movements in market income are much bigger than those for income after taxes and transfers, especially near the bottom of the distribution. Between 1979 and 1983, when unemployment reached its highest rate since the 1930s, market income at the tenth percentile fell 43 percent, whereas income after taxes and transfers fell only 13 percent.⁹ Market incomes at the tenth percentile were no greater in 1989 than they were in 1979. Market income at the tenth percentile rose far more during the 1990s, ending the decade almost 40 percent higher than it had been in 1989.

The top panel of figure 13-3 uses a more comprehensive definition of income than the Census Bureau’s traditional measure, but it does not include any adjustment for health insurance or free medical care. Health care spending poses a difficult challenge for measuring changes in American inequality. The national income accounts show that medical care represents 15 percent of personal consumption in the United States, a much larger share than in the 1950s or even the 1970s. Yet despite steep increases in the share of all consumption devoted to medical care, such

spending accounts for about the same percentage of households' out-of-pocket spending today as in 1950.¹⁰ The reason is that most Americans are now covered by health insurance, and the cost of insurance is financed largely by employers and the government. The distributional impact of this change is not easy to assess, but we know that public assistance financed \$200 billion worth of medical care for the needy in 2000, mostly through the Medicaid program. Indeed, public assistance finances one-fifth of total health care consumption in the United States. While low-income Americans do not have the same access to medical care as middle- or upper-income families, health care utilization rates have risen more among the poor than among the affluent since Medicaid and Medicare were established in 1965. Figures 1–3 do not capture this change.

Measuring health care consumption and access to medical care highlights a more basic limitation of using money income to assess inequality. Money income inequality captures disparities in those domains where money can be used to purchase improvements in well-being. If two people have identical incomes, they can buy identical amounts of goods and services that are for sale and not rationed. However, if one person has severe arthritis while the other enjoys robust health, the equality of their incomes obscures a major disparity in their circumstances. Money can buy care and medicine that reduces some of the pain and inconvenience caused by arthritis, but it cannot place sufferers and nonsufferers on an equal footing with respect to the enjoyment of life. Their health would not be equal even if they both had insurance that paid for all their medical care.

Innovations in both medical care and the provision of health insurance have changed inequality in both consumption and health itself. Health insurance lessens nonmedical inequality between the healthy and unhealthy, because it reduces the percentage of income that the unhealthy must devote to medical care and allows them to purchase food, clothing, and shelter

that are more nearly equal to those available to healthier people who have the same cash income. In addition, insurance probably reduces health inequality, although that is harder to prove. Standard income statistics do not capture the effects of changing insurance coverage *either* in the domain of nonmedical consumption *or* in the domain of health.

Nor do income statistics tell us much about the distribution of educational opportunity. Local governments offer free public education through the twelfth grade to every child in the United States, which almost certainly means that educational opportunity is more equally distributed than income. Nonetheless, low-income students typically attend worse schools than do high-income students. Some people believe that this “quality gap” has grown since 1970. As we indicate below, differences in access to higher education pose even thornier issues.

In principle, the United States also tries to protect everyone against crime. But not all neighborhoods are equally safe. People with higher incomes can afford to live in safer places. The steep increase in violent crime during the late 1960s and early 1970s accentuated the price difference between safe and unsafe neighborhoods, while the fall in crime during the 1990s probably reduced such differences. These differences, too, are missed by the standard income distribution statistics.

Why Has the U.S. Income Distribution Changed?

Since 1979 the widening income gap between rich and poor households in the United States has been closely connected to widening disparities in the pay of U.S. workers. Among men who worked full time throughout the year, real wages fell near the bottom of the distribution, were essentially flat near the middle, and rose near the top. As a result, the ratio of earnings at the ninetieth percentile to earnings at the tenth percentile rose from 4.0 in 1979 to 5.7

in 2000. The annual increase in real wages was about 1 percent faster for women than for men between 1979 and 2000, but the growth of inequality was very similar. As a result, women's real wages were flat near the bottom of the distribution, rose moderately in the middle, and rose sharply near the top. The ratio of the ninetieth to the tenth percentile for women rose from 3.2 to 4.7.

The trend in inequality between families cannot be explained solely by the trend in wage disparities, however. Wage inequality also increased between 1947 and 1969, but family income inequality fell.¹¹ Earnings inequality rose moderately among men and fell among women during the 1970s, while money income inequality rose.

Wage differentials based on education, job experience, and occupational skill all widened during the 1980s and 1990s. Less well known but even more important, wage differentials among workers in the same occupation with the same amount of education and experience also widened over the same period.¹² Some economists believe that these increases reflect the fact that employers now place more value on job-specific skills that vary independent of education and experience. Others argue that institutional changes, such as the decline in the minimum wage relative to the average wage and the decline of private sector unions, played a significant role.¹³ Social norms may also have changed, particularly with regard to whether workers should be rewarded for effort or results, although it is hard to tell whether normative change is a cause or a consequence of changes in firms' actual practices.

Two explanations for rising wage inequality dominate popular discussion—technological change and globalization. Most economists believe that the best explanation for widening inequality was a shift in employers' demand for labor linked to the introduction of new production techniques. Innovative management practices and new technologies, such as personal

computers and improved communications, caused a surge in demand for highly skilled workers. Technological innovation put competitive pressure on employers to change their production methods in ways that required a more entrepreneurial and more skilled work force. Throughout the 1980s and 1990s employers persisted in hiring more highly skilled workers even though rising wage differentials made this strategy more expensive than ever. The resulting surge in demand for highly skilled workers pushed up the relative wages of such workers.¹⁴

A more popular underlying explanation for rising wage inequality focuses on globalization—the growing importance of international trade, especially trade with developing countries. According to its critics, freer trade with low-wage countries has harmed all but the most skilled workers in the manufacturing sector of the American economy. This argument was forcefully advanced by opponents of the North American Free Trade Agreement and other trade agreements during the 1990s. Labor leaders and editorial writers warned that free trade with Mexico and other poor countries would eliminate middle-income industrial jobs and undermine the wages of semi-skilled U.S. workers. Most economists who have studied the influence of international trade are skeptical of these claims. With few exceptions, economists find little evidence that trade is the main explanation for growing wage disparities in the United States. Most would concede, however, that free trade has added to the downward pressure on the wages of less skilled workers and contributed modestly to their decline.¹⁵

Increased immigration and the changing characteristics of immigrants have played at least as big a role in depressing the wages of the less skilled. The effect of surging immigration on the wages of native-born workers with limited education has been particularly large, because immigrants represent a large and growing percentage of workers with the lowest levels of education.

Along with growing wage inequality, women's labor force participation has also increased steadily since 1960, while men's participation has edged down. In many families, a drop in men's real earnings has been offset by an increase in women's earnings, either because of higher wages or increased hours, allowing married couples to maintain or even improve their standard of living. Indeed, some critics of American economic performance think that the increase in women's earnings is the main reason middle-income families have been able to increase their consumption.¹⁶

But while the anemic growth of male wages may explain why some women in middle-income families have joined the work force, women who are married to highly skilled men have also increased their earnings dramatically, even though their husbands' real earnings have not declined. Among working-age men in the top fifth of the male earnings distribution, the percentage with a working wife increased by one quarter between 1979 and 1996, and wives' overall earnings more than doubled. These gains have disproportionately increased the incomes of families in which income would be high even without the wife's earnings, exacerbating household income inequality.¹⁷

Changes in family composition have also played a role in widening the gap between families at different points in the distribution. Although mortality rates have fallen steeply since the late nineteenth century, reducing the proportion of families headed by a widow or widower, divorce rates jumped dramatically between 1960 and 1980, boosting the fraction of Americans living in households with only one adult. The proportion of children born out of wedlock also rose dramatically between about 1964 and 1994. Many mothers who have a child out of wedlock eventually marry, and many of those who divorce eventually remarry. Nonetheless, more children were living in single-parent families in the 1990s than in earlier decades.¹⁸ These

families have much lower market incomes than two-parent families, both because they have only one potential earner instead of two and because the family breadwinner is often a woman without a college degree whose market wage is well below the national average.

Family income is also more unequally distributed among one-adult families than among two-adult families. The wages of husbands and wives are not perfectly correlated, and the earnings of families with two earners are somewhat more equal than the earnings of these same husbands and wives examined separately. But even when the husband is the principal breadwinner, his wife can enter the labor force if he loses his job and is either unemployed for a lengthy period or has to take a job with lower pay. This means couples have better insurance against hard times than do single-parent families. (Families with three or four potential earners are even better insured against such risks, which may be one reason why such extended families are more common in poor societies with no government safety net.) The net result is that, while improvements in women's labor market position have somewhat reduced the income gap between one- and two-parent families, the spread of single-parent families has still raised overall economic inequality.¹⁹

Cross-national comparisons show that taxes and transfers also have a major effect on the distribution of disposable income (income after taxes and transfers). But while different countries pursue very different policies in this regard, countries rarely make drastic changes in whatever policy they have adopted. In the United States, Congress and the president never tire of tinkering with the tax code, but the changes enacted since 1980 have not greatly altered the basic shape of the disposable income distribution. Congress lowered the effective tax rate for families with very high incomes in 1981 and 1986.²⁰ It also reduced taxes for low-income families, and in 1993 it greatly increased the earned income tax credit, which now provides a relatively large

refundable credit for low-wage workers with children. According to our estimates, people in the bottom tenth of the size-adjusted income distribution in 2000 owed taxes equal to 7 percent of their pretax income in 1979. In 2000 these low-income people typically received a tax credit that slightly exceeded their total tax liability, making their after-tax income 1 percent higher than their pretax income.

The redistributive impact of a more generous earned income tax credit was, however, largely offset by a drop in means-tested cash and noncash benefits. Part of this drop was directly attributable to welfare reform in the 1990s, which cut the number of families collecting cash benefits. In addition, the take-up rate for food stamps and Medicaid fell among low-income families who were, in principle, still eligible for such benefits. This change was probably an indirect by-product of welfare reform, as welfare applicants receive these benefits automatically, whereas other low-income families must apply for them directly.

Because the decline in means-tested benefits roughly offset the decline in net taxes, the bottom decile's size-adjusted disposable income remained almost unchanged. The income of some specific families changed substantially, however. Households containing a working breadwinner tended to gain, while households in which no one worked tended to lose. This kind of redistribution was, of course, precisely what legislators sought to achieve when they reformed welfare in the 1990s.

Immigration has also contributed to the growth of economic inequality since 1970. If immigrants were exactly like natives, their arrival would not have much effect on the distribution of income. Even when immigrants are less skilled than natives, as has traditionally been the case during periods of high immigration into the United States, the distribution of income will only change if the ratio of immigrants to natives changes or if the skill gap between the two groups

changes. That is precisely what has happened over the past generation. In 1970 less than 5 percent of the resident population had been born abroad, and recent immigrants earned 17 percent less than natives. By the end of the 1990s, 11 percent of the resident population had been born abroad, and recent immigrants earned 34 percent less than natives.²¹

Poverty statistics provide a simple illustration of how immigration has affected income statistics. The poverty rate for households headed by native-born Americans did not change between 1979 and 1998. But both the number of immigrant households and their poverty rate rose. As a result, the poverty rate for all residents, both native- and foreign-born, rose from 11.7 to 12.7 percent.²² If competition from immigrants depressed the wages and employment prospects of unskilled natives, which seems likely, the overall effect of immigration on poverty (and inequality) was even larger than this calculation implies.

Immigration raises fundamental questions about how to interpret statistics on poverty and inequality within the United States. Most immigrants come to the United States from countries where the average family's income is below the U.S. poverty line. Most enjoy higher incomes in the United States than they did in their country of origin. Even if their incomes place them near the bottom of the American distribution, they are usually better off than they would have been in their place of birth. (Those for whom this is not true usually go home.) Thus while slowing the flow of new immigrants or increasing the skill requirements for entry would almost surely reduce both inequality and poverty in the United States, the would-be immigrants thus excluded would be worse off.

America's current immigration policy almost certainly reduces global inequality at the same time that it increases inequality within the United States. Indeed, the increase in inequality within the United States is to some extent an illusory by-product of the fact that the Census

Bureau tracks income trends for places, not specific people. If census data on trends in inequality between 1970 and 2000 included the 1970 incomes of those who moved to the United States between 1970 and 2000, the 1970 distribution would look far more unequal. This change in perspective would not alter the fact that the income gap between the top and the middle has widened, but inequality for the population as a whole might well show a decline.²³

How Does the United States Compare with Other Rich Countries?

Many poorer countries, including Brazil, Nigeria, and Russia, have household incomes that are far less equal than those in the United States, but these countries differ from the United States in so many other ways that comparing them to the United States is not very informative. We therefore focus on comparisons among rich countries that collect consistent information on household income. Inequality tables for rich countries invariably show that the United States ranks at the top or near the top.²⁴ Comparing measures of income inequality across countries raises many of the same issues as does comparing inequality over time within a single country. Differences in national arrangements for financing health care, housing, and education mean that money income is more important in determining overall consumption in some countries than in others. Income differences are likely to produce wider differences in health care, housing, and education in places where families must finance these things out of their own pocket than in places where such costs are financed largely from taxes. In the United States, however, low-income families often receive subsidized health care, food, housing, and higher education, while the more affluent pay higher prices. As a result, it is hard to be sure whether inequality in disposable income overstates inequality in consumption more in the United States or in Europe.

Figure 13-4 shows estimated Gini coefficients for seventeen countries in the Organization

for Economic Cooperation and Development (OECD). The Gini coefficient is a standard statistic for measuring economic inequality. It ranges from 0 (when all families or persons have identical incomes) to 1 (when all income is received by a single family or individual). The data come from the Luxembourg Income Study (LIS), which is a cross-national project that assembles and tabulates income distribution statistics using consistent methods for all countries. The estimates use the same measure of after-tax, after-transfer “equivalent income” that we present in figure 13-3. Each person in the national population is ranked from lowest to highest in terms of size-adjusted income, and the coefficient is then calculated. The bars in figure 13-4 show the Gini coefficient of after-tax, after-transfer income (that is, the Gini coefficient of the final income distribution), while the bold triangles indicate the Gini coefficient of market income (that is, labor and property income before taxes are subtracted).²⁵

[figure 13-4 about here]

Disposable income inequality is highest in the United States, the United Kingdom, and Italy and lowest in the Scandinavian countries.²⁶ Inequality as measured by the Gini coefficient is on average one quarter lower in the other OECD countries than it is in the United States. Many people have a hard time interpreting Gini coefficients. They find it easier to understand income ratios, which are highly correlated with Gini coefficients. The LIS estimates suggest that someone at the ninetieth percentile of the Swedish income distribution received an equivalent income only 2.6 times that of someone at the tenth percentile. In the United States, the same income ratio was 5.6 to 1.0. Thus the proportional distance between the ninetieth and tenth percentiles is more than twice as large in the United States as in Sweden. In France the ratio was 3.5 to 1.0. Clearly, income gaps are much wider in the United States than in most other OECD countries.

Figure 13-4 also shows that market income is more unequal than disposable income in all OECD countries. It is hardly surprising that government transfers tend to equalize the distribution of income generated by labor and capital markets. The surprise is that market income inequality in the United States is not especially high by OECD standards. The Gini coefficient for market income is 0.48 in the United States, compared to 0.49 in Germany and France and 0.47 in Sweden. Averaging across the twelve OECD countries for which we have such data, the Gini for market income averages 0.45. The main reason why disposable income is more unequal in the United States than in other rich countries is that the U.S. system of taxes and transfers does less to reduce inequality than do the systems in most other countries. In the United States, taxes and transfers reduce the Gini by 23 percent (from 0.48 to 0.37). In the other twelve countries for which we have data, the reduction averages 39 percent. If the United States redistributed as much income as the average OECD country, the dispersion of disposable incomes would be about the same in the United States as in France or Canada.

Many people may be surprised to learn that market incomes are no more unequal in the United States than in France or Germany. To begin with, there is abundant evidence that Americans at the top of the pay distribution receive much higher compensation than do their counterparts elsewhere, both absolutely and relative to the earnings of an average worker. For example, a recent pay survey shows that U.S. chief executives typically receive forty-one times as much compensation as an average employee in manufacturing. Great Britain has the next highest ratio, but British chief executive officers receive only twenty-five times as much as British manufacturing workers. In France the ratio is 16 to 1, and in Japan it is just 12 to 1.²⁷ Census surveys may miss some of this compensation. But census surveys still find wider pay disparities in the United States than do similar surveys in other countries.

So why is market income inequality so similar in the United States and other OECD countries? The main explanation is that, while those with jobs are more unequally compensated in the United States than in other industrial countries, not having a job at all is more common in most other industrial countries. As soon as one includes individuals with zero earnings in the distribution, the Gini coefficient for earnings in the United States looks similar to that of other rich countries.²⁸ Americans who have retired are also more likely than their counterparts in many other rich countries to receive income from employer-sponsored pensions and retirement savings accounts. Retirees in many other countries are more likely to rely solely on public pensions. Overall, about 95 percent of Americans live in households that derive some part of their income from the market.²⁹

Differences in countries' tax and transfer systems help to explain these facts. Almost all working-age American families have some market income because low government transfers make not working very costly. More generous transfer payments, especially for working-age families in which no one has a job, make not working more attractive in other OECD countries, especially in continental Europe, than it is in the United States. Figure 13-5 shows the relationship between the labor utilization rate and government transfers in the seventeen OECD countries in figure 13-4. The labor utilization rate is the average number of hours worked by fifteen to sixty-four year olds as a percentage of the U.S. average.³⁰ Transfers are defined as government spending on public pensions and nonhealth transfers to the working-age population and are measured as a percentage of a nation's gross domestic product (GDP). Two countries with the same labor force participation rate, unemployment rate, and average workweek would have identical rates of labor utilization. Japan is the only OECD country with a higher labor utilization rate than the United States. Figure 13-5 shows a strong negative association between

government transfers and labor force utilization. (The correlation is -0.79 .) Although this correlation is unlikely to be entirely causal, it does suggest that generous transfers to nonworkers affect the employment and hours worked of adults.

[figure 13-5 about here]

Of course, a high labor utilization rate means that the working-age population has less free time for activities other than paid employment. Most of us value such activities, so having less time for them is a cost. On average, Americans have more income than residents of other OECD countries. But Americans, on the average, are also employed during more years of their life and work more hours each year. Some of the U.S. income advantage represents compensation for this sacrifice of leisure time. For Americans who earn low hourly wages, the compensation is not very large. Nor does encouraging such individuals to work add much to the nation's economic output.

Differences between national transfer systems also help to explain why some countries have larger wage disparities than others. More generous transfer payments make it easier for working-age Europeans who have jobs to resist wage cuts when the demand for labor falls. Americans may be more willing than Europeans to accept wage cuts rather than lose employment, because job loss is more costly in the United States than in Europe.

Finally, differences in transfer systems help to explain why the trend in economic inequality has varied so widely across OECD countries. Inequality in pretax market incomes increased in nearly all of the countries where reliable measurement is possible.³¹ As a result, no rich country has made its distribution of disposable income significantly more equal since 1980. But only about half of the rich countries have allowed the distribution of disposable income to become significantly more unequal. Some countries, like Canada and France, modified their

transfer or regulatory systems to offset the impact of wider market income inequality. Several U.S. reforms also helped to offset the impact of widening market income disparities, but other reforms reduced the equalizing effects of taxes and transfers. Among the countries listed in figures 4 and 5, the United Kingdom has probably taken the biggest steps to reorient its transfer and labor regulation environment. Those steps have almost certainly have contributed to the widening gap between Britain's rich and poor. Inequality has risen proportionally faster in the United States than in other any rich country except Great Britain.

How Does Inequality Affect Economic Growth?

Economists have proposed a number of possible links between the distribution of income and economic growth. This literature has had three major themes. In the 1950s, Simon Kuznets emphasized the impact of economic growth on inequality. In agricultural societies the distribution of income among those who live off the land is largely determined by the distribution of land and the primitive state of technology.³² In the initial stages of industrial and commercial development, many workers move into more productive activities that take place in towns and cities. The gap between incomes in the traditional and modern sectors causes overall inequality to rise until a critical percentage of the working population has entered the modern sector. But because inequality is lower within the modern sector than within the traditional agricultural sector, the growth of the modern sector eventually begins to push inequality down again. Kuznets also argued that urbanization leads to political changes that further reduce inequality. As urban workers grow richer and more politically powerful, they press for regulation and social protection, which leads to equalization of both opportunity and income.

But although Kuznets and later investigators have found evidence that some

industrialized countries have gone through a cycle in which inequality first grew and then declined, the Kuznets model cannot account for differences in inequality among today's rich countries. The United States is the richest OECD country (aside from Luxembourg), but it has the most inequality. Among the seventeen largest OECD countries, the richer ones tend to have more inequality than do the poorer ones, which is the opposite of what the Kuznets model predicts. It is true that the positive correlation between per capita GDP and inequality depends entirely on the United States. If we eliminate the United States and look at the sixteen remaining big OECD countries, the richer ones have *less* inequality than the poorer ones, as the Kuznets model predicts.³³ Nonetheless, a model that predicts lower inequality in the United States than in Europe is clearly incomplete.

Nor can the Kuznets model explain recent *trends* in inequality within OECD countries. Average income continues to rise in all the rich countries, but income inequality is no longer declining in any of them. Instead, inequality is climbing in some rich countries, while remaining stable in the rest. Even though the Kuznets model was developed partly from information on Britain, Germany, and the United States, it seems to apply only to an earlier stage of their development. It may also remain relevant for less affluent societies today, although several writers have challenged that view.³⁴

More recent theories focus on the ways in which economic inequality can affect growth rather than the ways in which growth affects inequality. Arthur Okun provides a succinct summary of such theories in his 1975 book, *Equality and Efficiency*.³⁵ Okun highlights the ways in which both regulating economic markets and redistributing market incomes could reduce efficiency—themes that have become increasingly popular among economists since 1975. Okun argues that, when governments try to equalize incomes, they change the incentives facing firms,

workers, and consumers, and that these changes often lower economic output.

Generous unemployment benefits, for example, reduce income disparities between those with jobs and those without jobs, but they also reduce the incentives for unemployed workers to search diligently for a new job. Indeed, if the monetary cost of unemployment is low enough and if the stigma associated with drawing unemployment benefits is also low, workers may not accept any job until their benefits are almost exhausted.

Figure 13-5 clearly supports this part of Okun's theory. Countries that spend more on redistribution have lower rates of labor utilization. If redistribution to those who are not working were cut, people would almost certainly work more hours, which would boost national output and average income. Of course, raising average income would not necessarily raise average well-being. Eliminating all disability benefits, for example, would induce some people with disabilities to find work. Economic output would rise a little, and taxes could fall a little. But eliminating disability benefits would also leave some disabled individuals destitute, substantially reducing their well-being (and that of their relatives). The reason all rich societies have some kind of support system for the disabled is that legislators and voters think the benefits of such a system outweigh the costs.

A skeptic might argue that making causal inferences from cross-national data like that in figure 13-5 is quite likely to be misleading. To begin with, the causal connection between transfer payments and labor supply could run either way. Perhaps France and Italy adopt policies aimed at reducing the cost of not working because they are unwilling or unable to adopt policies that produce a tight labor market. Or perhaps both transfer policies and labor supply have a common cause. Most French and Italian voters may prefer not working very hard and may elect legislators who promise to cut the cost of indulging this preference. Meanwhile, most American

and Japanese voters may think work is morally superior to idleness and may elect legislators who promise to keep idleness costly.

One way around some of these uncertainties is to ask whether *changes* in a given policy produce *changes* in the outcome of interest. This strategy makes sense when we expect the full effect to be immediately apparent, but in many cases that is unlikely. Consider early retirement. A large body of research shows that the financial incentives connected with early retirement have relatively modest effects on individual behavior within any given country. Yet in countries where early retirement is more financially advantageous, the average age of retirement is much lower. This too could be a case of reverse causation, in which political parties make early retirement easy because they know that is what people want to do. But it could also mean that changing the incentive to retire does not exert its full effect for many decades. After all, few people understand the full economic consequences of retiring at one age rather than another. Most people therefore take their cues from what they see others doing and from social norms about what constitutes appropriate behavior. A change in economic incentives may therefore produce a small initial change in a few people's behavior, but this change may then affect other people's expectations, gradually altering norms about what is socially appropriate.³⁶ The only way to estimate the full impact of a policy change is then to compare societies that have had different policies for a long time.

This example leads us to two conclusions. First, it is very dangerous to make strong causal inferences from cross-national correlations. Second, it is often even more dangerous to make strong causal inferences from studies of individual differences within a given country or from studies that focus on the short-term impact of either a specific policy change or the overall level of economic inequality.

Okun also noted that high marginal taxes could lead some people to work fewer hours or choose less arduous occupations. In this case, however, the effect of high taxes can also work in the opposite direction. High tax rates have the same effect as a wage cut. Some people facing higher tax rates will work less, because they value leisure more than the (reduced) net wage they can earn at work, while other people will work more, because that is the only way they can achieve the standard of living to which they aspire. On balance, however, more redistribution—and more equality—is likely to reduce work.

A third and more recent set of theories explores the possibility that inequality can reduce growth through the political system, by reducing citizens' ability to accumulate human, financial, and physical capital and by increasing social conflict.³⁷ Some economists suggest, for example, that high levels of inequality may slow growth by encouraging the median voter to favor excessive taxes on productive activities. If the distribution of income before taxes and transfers is very unequal, the median income will be far lower than the mean income. Under these circumstances, the median voter may reason that he can gain more from generous redistribution than from more rapid economic growth, which would mainly benefit the rich. If redistributive policies depress economic growth, however, they may benefit the median voter in the short run but not in the long run. Alternatively, high inequality may reduce the percentage of citizens who feel they can afford to invest in education, training, or a small business or who provide their children with nutritionally adequate food and health care. If returns on these investments are very high, especially for children in poor circumstances, inequality can severely limit growth. Finally, high inequality may create social conflict and political unrest, which in turn discourage productive investments and drive up prices as commerce becomes more dangerous.

Research on the links between inequality and growth has mushroomed over the past

decade. Unfortunately, analysts have reached no consensus on the nature of the relationship. Much of the recent evidence pools data on inequality and growth in both rich and poor nations. This may be a mistake. Inequality may well lead to political instability in poor or middle-income countries, for example, but there is little evidence that it has had this effect in rich countries since 1945. Likewise, inequality in poor and middle-income countries may prevent some parents from feeding their children adequately or keeping them in school, but this is not a major problem in rich countries. Even the hypothesis that inequality leads voters to support inefficient redistribution, while plausible in principle, does not seem to describe rich democracies very well. On the contrary, while voters in some European countries seem to have become more egalitarian as income has risen, voters in English-speaking countries seem to have moved in the opposite direction.

Nor does empirical evidence suggest that inequality has any consistent effect on economic growth in rich countries. Figure 13-6 shows growth rates between 1980 and 2000 in seventeen large industrial countries with differing levels of income inequality. The correlation between inequality and growth is 0.03—that is, almost precisely zero. The fastest and slowest growing nations (Japan and Switzerland) had almost identical inequality. The four Scandinavian nations (Sweden, Finland, Denmark, and Norway) had the lowest income inequality. Norway's growth rate was second only to Japan's, while Sweden's was lower than that of any country but Switzerland. The most unequal nation, namely the United States, had a growth rate just below that of Finland.

[figure 13-6 about here]

We do not interpret figure 13-6 as showing that inequality and growth have no effect on one another. A more sensible interpretation is that the relationship between inequality and

growth is complicated and imperfectly understood. Some government policies, such as good public schools and good primary health care, may promote both equality and growth. Others, like generous unemployment benefits and laws restricting businesses from dismissing workers, probably reduce both inequality and growth.

Still, it is worth considering what might happen to incomes in the United States if the United States used government policy to achieve a more equal distribution of final incomes. Suppose that reducing inequality by a quarter lowered average income in the United States by about a quarter, which is the average level of the other OECD countries in figures 4 and 5. If that happened, the income of an American at the tenth percentile would probably rise slightly, while incomes in the middle and at the top of the income distribution would almost certainly fall.

Although it seems very unlikely that American incomes would fall by a quarter if U.S. institutions were changed so as to achieve levels of inequality now common in the rest of the OECD, we find it equally implausible that inequality could be reduced by a quarter without any reduction at all in output or efficiency. We believe the drop in average income would be much closer to zero than to one quarter, but no one can be sure. If voters are worried about *both* high inequality *and* the adverse consequences of policies that reduce inequality, it seems sensible to focus on those equalizing policies that have the largest chance of boosting growth and the smallest chance of retarding it. Programs that improve the health, education, and work readiness of low-income children and young adults seem to have the most promise for success along these lines.

Equal Opportunity

Up to this point we have presented evidence on whether economic inequality affects the

ability of rich countries to achieve traditional economic goals, such as full employment and rapid increases in living standards. We now examine the relationship between inequality and three noneconomic goals: equalizing opportunity, improving life expectancy, and keeping the government relatively democratic.

Equal opportunity is an ambiguous and controversial ideal, but its political rationale is clear. All democratic societies need to convince their citizens that the distribution of economic prizes is just. Advocates of “equal opportunity” use the term to describe whatever system for distributing rewards they regard as just. Most advocates of equal opportunity also assume that the best way to measure inequality of opportunity is to measure the effect of family background on children’s educational attainment or income in adulthood. The smaller is the effect of family background, the more equal they think opportunity is. This approach to equal opportunity poses many conceptual problems, but since it is widely accepted, we adopt it here.³⁸

Intuitively, it may seem obvious that as economic inequality between parents rises, poor children will find it harder to compete successfully with rich children. The wider the income gap between the rich and poor, the easier it is for rich parents to buy their children advantages that other parents cannot afford. But although this argument is intuitively compelling, it only holds up if spending large sums of money on your children really gives them a significant advantage. Investigating this question, Susan Mayer finds that while high-income children fared much better than low-income children on almost every measure she examined, there was little evidence that most of the correlation was truly causal. Parental income did seem to have a direct effect on children’s chances of attending college. But parental income per se did not appear to be a major influence on children’s behavior, how well they did on cognitive tests, whether they finished high school, or whether they became teenage parents. These outcomes were correlated with

parental income, but they did not change much when parental income changed.

How can this be? Mayer finds that the kinds of expenditures that are strongly related to parental income—how much parents spend on things like housing, motor vehicles, and eating out—had little influence on their children's prospects. Children's success was associated with certain kinds of expenditure, like books and trips to museums, but expenditures on these things were not strongly related to parental income, presumably because the amounts of money involved were seldom large.³⁹ These findings suggest that changing the distribution of income might not have a big impact on children's life chances unless other things change at the same time. But changing the distribution of income may, in fact, change all kinds of other things. Mayer finds, for example, that economic segregation increased faster during the 1970s and 1980s in U.S. states where the overall distribution of income became more unequal. Expenditures on kindergarten through twelfth-grade (K–12) schooling also rose faster in these states.⁴⁰ Many observers also think that increases in economic inequality erode social solidarity and increase relative deprivation.⁴¹ How all this might affect equality of opportunity is a complex empirical question.

One way to measure equality of opportunity is to calculate the correlation between parents' family incomes and their children's family incomes. If one averages incomes over a number of years, this correlation appears to be about 0.4 in the United States. We do not have such data for other countries, but we do have some data on the correlation between the annual earnings of fathers and sons. The correlations found in the United States, Britain, and Germany do not differ significantly, although that may be because the samples are all quite small. The correlations found in Finland and Canada are significantly lower than those in the United States.⁴²

Another way to measure equality of opportunity is to compare the occupations of fathers and sons. Such correlations tend to be highest when we rank both fathers and sons on the basis of their occupation's educational requirements and economic rewards. We have correlations of this kind for reasonably large samples in the United States, Britain, the Netherlands, Germany, and Ireland. The correlations for the United States and Britain are almost identical (0.34 versus 0.35). The correlations for the Netherlands, Germany, and Ireland are all somewhat higher (0.40 to 0.49).⁴³ Robert Erikson and John Goldthorpe also compare the United States, Britain, and Sweden using somewhat different measures and find little clear evidence of differences.⁴⁴ All in all, then, intergenerational economic mobility seems to be about as common in Britain as in the United States, perhaps more common in Finland and Canada than in the United States, and probably less common in Germany, the Netherlands, and Ireland than in the United States. These results do not suggest that the distribution of income has much effect on equality of opportunity, but they should be treated quite cautiously, because the data on parents predate the big increases in economic inequality in the United States and Britain.

Although findings of this kind have been widely available since the early 1960s, most Americans and many Europeans still assume that family background counts less in America than in Europe. This assumption is rooted more in history and culture than in current experience. Most people see America as "the land of opportunity" because they know that millions of poor Europeans came to the United States between 1840 and 1914 and that the descendants of these immigrants are now about as successful as "old stock" Americans.⁴⁵ (They often forget that this process took three generations.) In addition, the United States has never had a hereditary aristocracy, and its culture has always emphasized equality rather than deference. Successful American politicians stress their social and cultural similarity to their constituents, even when

they are multimillionaires, rather than emphasizing accomplishments that might make them seem unusually competent to lead a complex society. America's dress code, vocabulary, and music are also populist and egalitarian. But although differences of this kind are important to both Americans and Europeans, they do not make family background markedly less important in the United States than in most of Europe.

What we would like to know, however, is not whether opportunity is more equal in the United States than in Europe but whether the *change* in economic inequality in the United States and Britain has changed children's chances of moving up or down the economic ladder. Unfortunately, we cannot answer this question. We know that the effect of family background on the family income of adults fell during the 1960s and was fairly flat after that.⁴⁶ But it is still too soon to know how the big increase in economic inequality after 1980 will affect the family incomes of American children in adulthood.

We do, however, know something about changes in the distribution of *educational* opportunity since 1980. Table 13-1, which is taken from work by David Ellwood and Thomas Kane, shows changes between 1980–82 and 1992 in the fraction of high school graduates from each income quartile who entered a four-year college.⁴⁷ Among students from the top income group, college entrance rates rose substantially. Among students from the middle two groups, entrance rates rose more modestly. Among students from the poorest group, college entrance rates hardly changed.

[table 13-1 about here]

Any effort to explain table 13-1 must take account of two facts. First, the growth of economic inequality during the 1980s was linked to an increase in the value of a college degree. Had everything else remained equal, making a bachelor's degree more valuable should have

enhanced *all* teenagers' interest in attending college and made all parents more willing to help their children with college bills. The second relevant fact is that as the value of a college degree rose, state legislatures raised tuition. Tuition, room, and board at the average four-year public institution rose from 10.8 percent of the median family's pretax income in 1979–80 to 15.8 percent in 1991–92.⁴⁸ If American high school graduates had all been well informed and far-sighted, they would have realized that the monetary value of a college degree was rising even faster than its cost. Students from affluent families would have tried to persuade their parents to pay these costs. Students from poorer families would have borrowed more money, worked more hours, or taken longer to earn a degree.

Table 13-1 suggests that, while students from affluent families responded in the predicted way, students from poor families did not. The response of poor students is consistent with other evidence suggesting that they are more sensitive to changes in college tuition than to changes in the long-term value of a college degree.⁴⁹ Perhaps a lot of poor students cannot borrow enough money or work enough hours to pay their college bills, while simultaneously maintaining an acceptable grade-point average. Or perhaps they do not apply to college because they do not realize how much financial aid is actually available.

A third hypothesis that could explain the widening disparity in the college prospects of high- and low-income students is that most seventeen year olds have relatively short time horizons regardless of how rich or poor their parents are. Left to their own devices, they decide what to do after high school by comparing their picture of life as a college freshman with their picture of life in a low-level job. If they hate schoolwork and think they will have to work nearly full time to pay their college bills, they are unlikely to attend. If they like schoolwork and their parents offer to pay their college bills, they are likely to attend. If they are lukewarm about

schoolwork, their decision depends on whether their parents bribe them to attend. When returns to higher education rise, more parents want their children to attend. But while affluent parents can influence their children's decisions by offering to pay, poor parents cannot. As a result, affluent students respond to changes in the long-term benefits of college, while poor students respond mainly to changes in short-term costs.

None of these explanations for the widening gap in college attendance between students from high- and low-income families depends on a change in the actual distribution of parental income. And, indeed, Ellwood and Kane find that changes in the incomes of the top and bottom quartiles do not explain the changes in attendance rates shown in table 13-1. Nonetheless, another recent study by Mayer suggests that the college attendance gap between rich and poor students widened more in states where inequality grew fastest.⁵⁰ Increases in economic inequality led to rapid increases in educational attainment among students from the top half of the income distribution, but not much change among students from the bottom half. Like Ellwood and Kane, Mayer finds that the change in attendance patterns was much larger than she would have predicted on the basis of changes in parents' own incomes. This finding supports the notion that increases in economic inequality have important ramifications that go beyond what happens to the income of any given individual.

The evidence currently available suggests two seemingly contradictory conclusions. First, while family background affects children in myriad ways, income per se is seldom the primary force. This finding means that changing the distribution of income is not likely to have a big impact on children's life chances unless other things change at the same time. But our second tentative conclusion is that changes in the distribution of income do, in fact, change other things, ranging from the degree of economic segregation to state spending patterns, and that these

changes appear to influence the distribution of educational opportunity. How they influence economic opportunity we do not yet know.

Life Expectancy

The relationship between economic inequality and health has been hotly debated over the past decade.⁵¹ The public health literature mostly argues that inequality is bad for health. Economists mostly hold that the relationship is spurious. Our reading of the evidence is that it suggests some causal connection between income inequality and life expectancy, but that the connection is probably weak.

Economic inequality can influence health in at least three ways. First, if giving an extra \$10,000 a year to the rich has less impact on longevity than giving it to the poor, shifting income from the rich to the poor should increase average life expectancy. Second, economic inequality may have political ramifications that affect government policies ranging from pollution and crime control to Medicaid spending and the quality of nursing homes. Third, economic inequality may affect the strength of community ties and the way people treat one another.⁵²

Figure 13-7 shows the life expectancy at age twenty-five of white men and women in each of seven income groups.⁵³ The data span the period 1979–85. The estimates suggest that low-income white men typically die 10.0 years younger than high-income white men, while low-income white women die 4.3 years younger than high-income white women. Figure 13-7 also suggests that the value of additional income is far greater among individuals whose family income is below rather than above the median.⁵⁴ If these relationships were truly causal, shifting income from the top to the bottom of the distribution would obviously increase life expectancy. In the most extreme case, dividing incomes equally would have given each of these white

families about \$42,000 in today's money. If nothing else had changed, average life expectancies of twenty-five-year-old white men and women would have risen 1.3 and 0.6 years, respectively.

[figure 13-7 about here]

Of course, no complex society can afford to distribute income exactly equally. So we need to ask what might happen when income inequality merely fluctuates within the range that we actually observe in rich democracies. According to LIS, the U.S. Gini coefficient for size-adjusted disposable income rose by about a quarter between 1979 and 1997. If the entire relationship between income and life expectancy in figure 13-7 were causal, increasing inequality by a quarter while leaving the shape of that relationship unchanged would have reduced the “normal” increase in American life expectancy at age twenty-five by about one-tenth.⁵⁵

In reality, of course, the relationship between income and life expectancy in figure 13-7 is *not* all causal. (If it were, raising life expectancy would be much easier than it is.) Lottery winners do not automatically take on the life expectancies of the wealthy. Characteristics other than low income affect the life expectancies of the poor. Many are poor because bad health limits their earning power, not the other way round. Good medical treatment would lengthen their lives, but it would not make them live as the rich do. The poor disproportionately exhibit life-shortening and income-reducing characteristics or behaviors—alcoholism, obesity, and limited literacy—that no amount of medical care can offset.⁵⁶

The foregoing calculations imply that the longevity payoff from reduced inequality is quite small. But big changes in the distribution of income are also likely to have political and social consequences for society as a whole, independent of their effect on the income of any given individual. Changing the distribution of income may, for example, alter the political

environment in ways that affect expenditure on public health or access to medical care, although it is not clear on a priori grounds whether growing inequality is likely to strengthen the hand of those who favor or oppose egalitarian social programs. Changing the distribution of income may also fray social ties and increase stress levels. As a result, the overall impact of economic inequality on health remains unclear.

One way to get more insight into this question is to compare life expectancy in different rich countries. Figure 13-8 shows that life expectancy and income inequality are indeed negatively correlated ($r = -0.30$) in the thirteen rich democracies on which LIS provided data for the mid-1990s.⁵⁷ To be sure, the correlation depends entirely on the fact that the United States has unusually low life expectancy and unusually high inequality. Excluding the United States drops the correlation for the twelve remaining countries to -0.04 . If we add Japan, which has very high life expectancy and relatively high income inequality, the correlation becomes positive.

[figure 13-8 and 13-9 about here: pls set together, either on same page or facing]

The countries in figure 13-8 differ in so many ways that no amount of statistical analysis can take account of them all. One way around this problem is to ask whether *changes* in life expectancy within a given country depend on *changes* in economic inequality. Figure 13-9 shows the relationship between increases in inequality and increases in life expectancy. Everything clearly depends on which countries one includes in such an analysis. If one excludes France, on the grounds that the French income data are not strictly comparable over time, the relationship between changes in inequality and changes in longevity is close to zero. If one includes France and adjusts for the change in data sources, longevity increases faster in the countries that did more to limit the growth of economic inequality.⁵⁸

In an attempt to sharpen the estimate of how changes in economic inequality relate to changes in life expectancy, Andrew Clarkwest uses all the LIS data on rich democracies. He matches each inequality estimate to a concurrent estimate of life expectancy and to changes in the country's per capita GDP. He also controls for the fact that life expectancy was rising in all rich countries regardless of what happened to their income. In this analysis, a one-point increase in a country's Gini coefficient lowered the expected increase in life expectancy by 0.06 year.⁵⁹ Life expectancy at birth rose 3.0 years in the United States between 1979 and 1997.⁶⁰ Since the U.S. Gini coefficient rose 7.1 points, the Clarkwest estimate suggests that if inequality had been constant, life expectancy would have risen by an additional 0.4 year.

Comparisons among American states also reveal a weak relationship between inequality and mortality. American whites live longer in states where the distribution of income is more equal. But white life expectancy is lower in states that have large black populations, which also tend to have unequal incomes.⁶¹ Once one controls statistically for racial composition, the relationship between income inequality and longevity evaporates. Nonetheless, more unequal states do score poorly on federal "quality of health care" measures, so we are inclined to believe that something real is going on.

These findings suggest that the debate over economic inequality and health should be redirected. The debate has focused on whether such a relationship exists. We think that the question should be whether it is large enough to matter. Our conclusion is that a relationship may exist, but that it is small, hard to detect, and not very important compared to more direct and controllable influences on longevity and health. Our cross-national comparisons suggest that economic inequality may slightly lower longevity. Our best guess (and it is only that) is that increases in U.S. income inequality between 1979 and 1997 reduced life expectancy about 0.4

year. The average annual increase in U.S. life expectancy during this period was 0.16 year, so one can think of the increase in inequality as having offset the effects of two to three years of medical progress. The possibility that holding income inequality at its 1979 level would have added five months to the average American's life is certainly an argument in its favor. But if you oppose income redistribution for other reasons, the somewhat uncertain prospect of a five-month increase in life expectancy is not likely to alter your views.

Given the intense political resistance to egalitarian economic policies in the United States, those who want to improve Americans' health need to ask how the benefits of reduced economic inequality compare to the benefits of other strategies. One obvious alternative is to concentrate on measures to raise incomes near the bottom of the distribution and to ameliorate extreme material hardships, such as homelessness, malnutrition, or lack of access to medical care for the sick. The political shortcoming of this strategy is that it directly aids only a tiny fraction of the total U.S. population. Furthermore, this group is politically unorganized and votes at low rates. As a result, programs for this group depend on altruism—a scarce and evanescent virtue. For those who prefer a more inclusive approach to health improvement, it might make sense to concentrate on taxing cigarettes and using the revenue to subsidize clinics or gyms.

Political Influence

Almost everyone who compares rich democracies agrees that the main reason the income distribution is more equal in some of them than in others is political. Some countries have more progressive taxes than others, and some transfer more money to people who are retired, unemployed, sick, disabled, poorly paid, or raising children. Some countries also have high minimum wages, centralized wage bargaining, or laws that make unionization easy, all of which

tend to compress the distribution of earnings. In addition, some countries require employers to give all their workers expensive fringe benefits, such as lengthy paid leave and good severance pay. The direct and indirect costs of these policies can be high, but few experts deny that they can and do equalize the distribution of income. The United States does not have centralized wage bargaining, does not make unionization easy, sets its minimum wage low, mandates few fringe benefits, and is not especially generous in its treatment of the unemployed, the sick, the disabled, or families with children. It also ends up with a very unequal distribution of income.

As we note at the beginning of this chapter, support for egalitarian economic policies is not as widespread in the United States as in most other rich democracies, partly because Americans are somewhat more tolerant of income inequality and partly because they are more hostile to government intervention in the economy. Raising the minimum wage is one of the few egalitarian policies that wins overwhelming popular support, perhaps because it seems equitable to most voters and does not require a large public budget for enforcement.

Although attitudinal differences between the United States and other rich democracies have existed for a long time, they do not persist unaided. Every rich democracy has had a long-running ideological war about whether the government should regulate or deregulate markets, raise or lower taxes, and expand or shrink social programs. The outcome of this struggle at any given time depends partly on the views that citizens develop from their everyday experience and partly on the relative influence of propagandists for different views. We have not been able to find data on how much money Americans spend trying to influence one another's political views, but the amount has almost certainly risen over time, both absolutely and as a fraction of GDP.

The rich also provide the bulk of the money that political candidates now need to run for

office. Until the 1960s political candidates relied largely on volunteers to staff their campaign offices and contact voters. Now they rely largely on paid staff and advertising. Many attribute this change to technological innovations like television and direct mail. But political candidates can only exploit costly innovations of this kind if someone is willing and able to pay for them. Campaign managers always preferred a professional office staff over volunteers, for example. They relied on volunteers because that was all they could afford. They hire more professionals today because candidates can raise more money. The same logic applies to campaign advertising.

One reason America now spends more money on election campaigns is that because government regulates more aspects of our lives, people with money care more about who controls it. Another reason may be that television is more cost-effective than earlier forms of campaign advertising, making it easier for politicians to convince potential contributors that another \$1,000 could make all the difference. But the fact that America's richest families now have a larger share of the nation's income is also likely to be a factor. That change presumably allows politicians with a finite amount of time to raise more money per phone call.

The same logic applies to less direct methods of exercising political influence. The more concentrated is the distribution of income, the easier it is to raise money for nonprofit organizations that seek to influence opinion. If these organizations have some influence, making the distribution of income more unequal is likely to increase the influence of those with money to spend on such activities. In the 1960s elite opinion on many domestic issues had a somewhat liberal cast. Since then, however, the affluent have poured more of their money into conservative organizations that endorse laissez-faire economic policies, low taxes, and cutbacks in social programs. Unlike liberal groups, which spend much of their money trying to help the needy, conservatives spend heavily on think tanks and publications aimed at influencing the views of

people with political influence. These efforts have probably played some role in reducing political support for redistributive policies, although we have no way of saying how large their role has been.

The impact of income inequality on the distribution of political influence remains far from certain, but of all the ways in which increases in economic inequality can influence a society, this one worries us most. If all Americans had equal political influence and decided collectively to let everyone's wages depend on an unregulated market, we would find it hard to argue against the legitimacy of that decision, although we might question its wisdom. But if the rich can buy more political influence than other Americans, and if the political process then yields policies that allow the rich to further increase their share of total income, it is hard to reconcile this result with traditional norms about how a democracy should operate.

Of course the political economy theories described earlier predict that if the share of income going to the rich keeps rising, the "have-nots" will eventually decide to tax the "haves" rather than pay taxes themselves. Once that happens, the have-nots may also support policies that use revenue raised from the rich to finance more government services that they currently pay for out of their own income. But although such a populist revolt is theoretically possible, it is far from certain. Nor would such a revolt necessarily serve the long-run interests of the have-nots. Populist revolts may favor policies that yield quick results. Policies that deliver a big, quick change in the distribution of income are likely to be policies that also lower investment and slow growth.

Inequality and Justice

When egalitarians argue in favor of the inheritance tax or a progressive income tax, they seldom stress the economic or social benefits of taxing the rich. They favor taxing the rich because they think the current level of economic inequality is unjust and because they think it is unfair to ask ordinary workers to pay more taxes when their bosses live in unprecedented luxury. Egalitarians who advocate a federally financed health insurance system, low tuition at state colleges, or a higher minimum wage also emphasize moral arguments. It is wrong, they say, to deny people medical care because they cannot pay or to deny qualified youngsters college educations just because their parents cannot pay for it. Americans should not be poor if they work hard every day.

Egalitarians sometimes supplement these moral arguments with practical claims: extreme inequality leads to crime and violence; inadequate health care reduces productivity and reduces the proportion of adults who can support themselves; encouraging the young to attend college eventually pays for itself through higher taxes; raising the minimum wage helps to keep families together and reduce welfare dependency. But these are after-thoughts, aimed at winning the support of waverers who cannot see that the current level of inequality—or perhaps any level of inequality—is simply unjust. Egalitarians would still favor redistribution even if crime proved unrelated to inequality. They would also favor free health care even if it had no effect on longevity and a higher minimum wage even if it did not keep families together.

Those who oppose egalitarian proposals also tend to see the struggle in moral terms. They do not argue, of course, that inequality is good in itself. Rather, they argue that the market distributes income more justly than the government. As they see it, the economy rewards people for doing things that others value. People who do nothing that anyone else is willing to pay for have no right to live parasitically off the people who engage in activities that others value. Those

who see the market as fundamentally more just than the government often argue that high taxes and generous transfer programs discourage investment, slow growth, raise unemployment, or promote dependency. But their opposition to redistribution seldom derives from considerations of this kind. Like egalitarians, they seldom change their views when empirical evidence suggests that redistribution has fewer costs than they claimed. At bottom, those who oppose redistribution usually believe that virtue should be rewarded and vice punished and that the market is more likely than the government to do this.

People have debated these issues for a long time. John Rawls summarizes the egalitarian case well in his classic, *A Theory of Justice*.⁶² Robert Nozick's influential rebuttal, *Anarchy, State, and Utopia*, makes the opposite case.⁶³ Whether either of these books has changed anyone's mind we do not know. Our own view is that neither the market nor the political process is ever likely to produce a just distribution of income and that the best response to this fact is a series of ad hoc compromises. Compromise, of course, is what all successful democracies do. As we have seen, all rich democracies have quite unequal distributions of market income, they all use taxes and transfers to make the market distribution somewhat more equal, and none of them makes the distribution completely equal. Even though the Gini coefficient for size-adjusted disposable income can range from 0 to 1, all the rich democracies covered by LIS had coefficients between 0.22 and 0.37 in the mid-1990s.

Our review suggests that, for countries that fall within this range, it makes sense to evaluate policies aimed at changing the distribution of income by asking whether they are consistent with widely held norms about justice. This conclusion is not a tautology. If we had found strong evidence that tolerating inequality greatly increased economic growth, dramatically increased the impact of family background on children's economic prospects, or substantially

reduced life expectancy, we would have argued for weighing these effects against the uncertain and controversial claims of justice. But as anyone who has read this far will recognize, the evidence for such effects is relatively weak, probably because the effects of inequality are fairly modest compared to the other determinants of economic growth, intergenerational mobility, and longevity.

We worry most about the possibility that changes in the distribution of income lead to changes in the distribution of political power both because such a change can undermine the legitimacy of the political system and because it can make the increase in economic inequality irreversible. In theory, countries can minimize the political impact of changes in economic inequality, first by designing a political system that minimizes the influence of money and then by mobilizing less affluent voters around distributional issues. But the United States does not have such a political system, and the system it does have seems almost immune to change. Both major political parties have become dependent on large contributions from the affluent. Both major parties want to portray themselves as supporters of campaign finance reform. But both parties also believe that money is absolutely crucial to their electoral success. The major parties' reliance on large contributions might be reduced if less affluent voters could be mobilized around distributional issues, but, as we note earlier, such issues do not seem compelling to many Americans.

Voter turnout has declined slightly as inequality has widened and has declined most among people with low income. If growing economic inequality increases the political influence of the rich, and if the political influence of the rich allows economic inequality to grow even more, legislative support for redistribution in the United States could go into irreversible decline. But although we worry about this risk, we have no way of knowing how great it is. Likewise,

although the influence of money obviously reduces the legitimacy of the American political system, we have no way of knowing how serious this threat is.

The other costs and benefits of economic inequality are equally uncertain and considerably less worrisome. During the 1990s the contrast between the United States and Europe convinced many Americans and some Europeans that tolerating high levels of economic inequality led to faster economic growth and tighter labor markets. But this conclusion does not seem as convincing when we make comparisons among other rich democracies besides the United States, and it does not hold before the 1980s. Furthermore, while output per worker is currently higher in the United States than in other rich democracies, that is partly because Americans work more hours—a growth strategy that most European countries have explicitly rejected. Allowing economic inequality to grow probably increases the influence of family background on children's opportunities, but the evidence for this claim is not conclusive. Allowing economic inequality to grow may also reduce life expectancy or at least slow the rate at which it improves. But here again the evidence is not definitive, and the size of the effect is almost certainly modest.

Our conclusion that changes in economic inequality have a modest impact on economic growth, equal opportunity, and life expectancy should not be overgeneralized. We are not arguing that if income in the United States were as unequally distributed as it is in Mexico this change would have no long-term impact on future growth, intergenerational mobility, or longevity. Nor do we believe that if Scandinavian governments were to cut current inequality in half over the next generation, investment, labor force participation, and growth rates would be unaffected. Our argument is that, *within the range currently found in rich democracies*, measured inequality does not have large and obvious effects on growth, mobility, and longevity. By

definition, rich countries have relatively similar living standards. They also have surprisingly similar life expectancies and intergenerational mobility. What distinguishes rich democracies is the relative political influence of different economic and ideological groups. Those political differences largely explain why some rich democracies are more equal than others.

This reasoning leads us to two further conclusions. First, if you care mainly about growth, health, or equal opportunity, changing the distribution of income is not the best strategy for promoting these goals. Redistribution is a hard sell politically and normally consumes a lot of government resources. Those who care about growth, health, and equal opportunity are likely to achieve more if they focus on more proximate determinants of these outcomes, such as encouraging public and private investment in innovation, assuring good health care and early education for children, reducing smoking and obesity, and making public universities affordable for all talented youngsters. Our main caveat is that if economic inequality increases the political influence of the well-to-do, using the government to achieve these goals is likely to become more difficult.

Our second conclusion is that when the practical effects of a policy are both uncertain and modest, legislators should choose the policies that they and their constituents regard as just. That judgment does not resolve the question of what is just in any particular situation. It merely asserts that political legitimacy is a democracy's most precious asset and that a democracy's political legitimacy depends to a great extent on whether its citizens believe it tries to behave justly. Preserving that kind of legitimacy is an essential precondition for almost everything else we care about.

Endnotes

1. The U.S. data are from the 1996 General Social Survey. Even higher percentages of adults in other rich democracies think income differences are too high (87 percent in France, 82 percent in Germany, and 81 percent in Britain, for example). The most distinctive feature of American opinion is the unusually high percentage of adults who explicitly disagree with the statement that income differences are too large: 20 percent in the United States compared to 16 percent in Canada, 11 to 14 percent in Japan, New Zealand, the Netherlands, Norway, and Sweden, and only 6 or 7 percent in France, Britain, and Germany. Marc Suhrcke, "Preferences for Inequality: East vs. West," Working Paper 89 (Florence: Unesco Innocenti Center, October 2001).

2. On average in five European countries and Japan, 64 percent of adults strongly agree that the government should guarantee a minimum standard of living. Everett C. Ladd and Karlyn H. Bowman, *Attitudes toward Economic Inequality* (Washington: American Enterprise Institute, 1998).

3. See also the contribution by Victor Fuchs and Alan Garber in this volume.

4. Thomas Picketty and Emmanuel Saez, "Income Inequality in the United States, 1913–1998," Working Paper 8467 (Cambridge, Mass.: National Bureau of Economic Research, 2001), compare information from income tax returns with estimates of national income to calculate the percentage of total income received by Americans in the top ranks of the distribution. Some of the short-term changes appear to be driven by changes in the tax code. Reported income falls when tax rates rise and rises when tax rates fall.

5. See *ibid.*, figs. 1–3.

6. Compare Michael Boskin and others, "Toward a More Accurate Measure of the Cost of Living," Final Report to the Senate Finance Committee, December 4, 1996, and Charles Schultze and Christopher Mackie, *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes* (Washington: National Academy Press, 2002). The Bureau of Labor Statistics, which produces the consumer price index, has made numerous changes over the years. Figure 2 uses the CPI-U-RS, which tries to apply today's methods retrospectively. The official CPI-U inflation series shows larger increases in prices and therefore implies smaller increases in purchasing power. Had we used the CPI-U instead of the CPI-U-RS, for example, real income growth for the bottom fifth of the distribution between 1973 and 2001 would have fallen from 0.3 to -0.2 percent a year (that is, average real income would have *declined*).

7. Another popular solution to the size problem is to divide each family's income by the poverty line threshold that corresponds to the family's size and composition. Still another solution is to divide family

income by the number of family members, although this adjustment does not seem consistent with the view that people can live more cheaply if they share expenses than if they live separately. The adjustment we have used is the most common in the international literature on income distribution.

8. Applying a standard size adjustment to households of one person ignores the value that many people place on privacy. As incomes rise, living alone has become more common, especially among the elderly, many of whom once lived with their children after they stopped working. Maintaining a separate household can lower an individual's material standard of living, for the reasons mentioned, but for many people the gain in autonomy dominates these costs. Thus while our size adjustment implies that two people with fixed incomes are always worse off when they live separately than when they live together, real people who live alone seldom feel this way.

9. The bottom panel ranks individuals according to their market income, so the household at the tenth percentile of the market distribution is not the same as the household at the tenth percentile of the distribution after taxes and transfers.

10. Statistics on aggregate health care and consumption spending are from the U.S. Department of Commerce's national and income product statistics. Statistics on out-of-pocket spending on medical care are from the Bureau of Labor Statistics, Consumer Expenditure Survey, various years (<http://stats.bls.gov/cex/home.htm>); and Eva Jacobs and Stephanie Shipp, "How Family Spending Has Changed in the U.S.," *Monthly Labor Review*, vol. 113, no. 3 (1990), pp. 20–27.

11. Postwar trends in wage inequality are summarized in Gary Burtless, "Earnings Inequality over the Business and Demographic Cycles," in Burtless, ed., *A Future of Lousy Jobs? The Changing Structure of U.S. Wages* (Brookings, 1990), pp. 77–117.

12. Chinhui Juhn, Kevin Murphy, and Brooks Pierce, "Wage Inequality and the Rise in the Returns to Skill," *Journal of Political Economy*, vol. 101 (June 1993), pp. 410–42; and Burtless, "Earnings Inequality over the Business and Demographic Cycles."

13. On the minimum wage, see David Lee, "Wage Inequality in the United States during the 1980s: Rising Dispersion or Falling Minimum Wage?" *Quarterly Journal of Economics*, vol. 114 (August 1999), pp. 977–1023. On other institutions, see Richard Freeman and Lawrence Katz, "Rising Wage Inequality: The United States vs. Other Advanced Countries," in Freeman, ed., *Working under Different Rules* (New York: Russell Sage, 1994), pp. 29–62.

14. Juhn, Murphy, and Pierce, "Wage Inequality and the Rise in the Returns to Skill."

15. Gary Burtless, "International Trade and the Rise in Earnings Inequality," *Journal of Economic Literature*, vol. 33 (June 1995), pp. 800–16.

16. The contribution of employment growth among women to increased inequality is controversial, partly because one's conclusions depend on the treatment of unmarried men and women. Between 1979 and 1996 there was little change in the probability that men with wages in the middle fifth of the male distribution would have a working spouse. Among those who were married, wives' rates of employment rose. But this increase was just about offset by the fact that such men were also less likely to be married. See Gary Burtless, "Effects of Growing Wage Disparities and Changing Family Composition on the U.S. Income Distribution," *European Economic Review*, vol. 43 (May 1999), pp. 853–65.

17. If one contrasts men in the middle fifth of the wage distribution with men in the top fifth, both the employment rate and earnings of spouses increased faster among men in the top fifth (*ibid.*, table 2).

18. For example, the fraction of American children under eighteen who are currently living with two married parents fell from 88 percent in 1960 to 69 percent in 1994. It has varied only slightly since 1994. See www.census.gov/population/socdemo/hh-fam/tabch-1.xls [July 7, 2002].

19. For details, see Burtless, "Effects of Growing Wage Disparities and Changing Family Composition on the U.S. Income Distribution."

20. Congressional Budget Office, *Historical Effective Tax Rates, 1979–1997* (Washington, 2001), p. 29, figure 1.8.

21. George Borjas, *Heaven's Door: Immigration Policy and the American Economy* (Princeton University Press, 1999), p. 28.

22. Gary Burtless and Timothy M. Smeeding, "The Level, Trend, and Composition of Poverty," in Sheldon Danziger, Robert Haveman, and Barbara Wolfe, eds., *Understanding Poverty: Progress and Problems* (Harvard University Press, 2001), table 4.

23. For evidence that including the estimated 1979 wages of the those who migrated to the United States between 1979 and 1996 reverses the trend in wage inequality, see Robert Lerman, "U.S. Wage-Inequality Trends and Recent Immigration," *American Economic Review, Papers and Proceedings*, vol. 89 (May 1999), pp. 23–28.

24. OECD data suggest that economic inequality among households is about the same in Italy as in the United States. In contrast, the Luxembourg Income Study (LIS) indicates that inequality is lower in Italy than in the United States. See Michael Förster with Michele Pellizzari, "Trends and Driving Factors

in *Income Distribution and Poverty in the OECD Area*," Occasional Paper 42 (Paris: Organization for Economic Cooperation and Development, 2000), p. 70. Since Italians report only about half their income in household surveys, we think estimates of Italian inequality should be treated with skepticism.

25. For sixteen of the seventeen countries, the estimates are based on calculations of the Luxembourg Income Study. The estimates on net disposable income inequality were derived from the LIS "Key Figures" file, www.lisproject.org/keyfigures/ineqtable.htm [July 2, 2002]; the estimates of market income inequality were supplied to the authors by Timothy Smeeding and David Jesuit on July 16, 2002, based on tabulations of the LIS database. The estimate for Japan was calculated from national sources using the LIS methodology and is reported in Timothy M. Smeeding, "Changing Income Inequality in OECD Countries: Updated Results from the Luxembourg Income Study," Working Paper 252 (Luxembourg: Luxembourg Income Study, 2000), figure 1. The LIS estimates of final income inequality are generally similar to those reported by the OECD, although the cross-national pattern of market income inequality differs somewhat. See Förster and Pellizzari, "Trends and Driving Factors in Income Distribution and Poverty in the OECD Area"; and Roman Arjona, Maxime Ladaique, and Mark Pearson, "Growth, Inequality, and Social Protection," Labor Market and Social Policy Occasional Paper 51 (Paris: Organization for Economic Cooperation and Development, 2001).

26. Like other users of income data, we regard the Italian distributional statistics with skepticism. We include them because suppressing inconvenient data might arouse readers' suspicions and require extensive justification.

27. Towers Perrin, "2001–2002 Worldwide Total Remuneration" (www.towers.com [July 15, 2002]).

28. The Gini coefficient for a population can be written $p + (1 - p)G^*$, where p is the fraction of people with no income and G^* is the Gini coefficient among persons with a positive amount of income. Most studies show that G^* for labor incomes is greater in the United States than it is elsewhere. Because p is smaller, however, the overall inequality of labor income is similar in the United States and other OECD countries. For a comparison of labor income inequality in five OECD countries, see Ignazio Visco, "Commentary: The Distribution of Income in Industrialized Countries," in *Income Inequality Issues and Policy Options* (Kansas City: Federal Reserve Bank of Kansas City, 2000), p. 50. When Visco considered inequality among full-time workers and among all people with positive labor income, the United States had the highest inequality of the five countries considered. However, once working-age people with zero earnings are considered, overall U.S. labor income inequality was approximately the same as inequality in

Canada and Germany and lower than inequality in the Netherlands. Only Sweden had less labor income inequality in the late 1980s.

29. Authors' calculations with March Current Population files, 1996–2002. OECD tabulations show that only 6 percent of Americans living in a household with a working-age member have no household income from employment. This percentage is the lowest in the rich OECD countries. In comparison, 12 percent of people in French and German households with a working-age member receive no household income from employment, and in Australia and the Netherlands the percentage is 14 percent. Förster and Pellizzari, "Trends and Driving Factors in Income Distribution and Poverty in the OECD Area," table 3.4.

30. See Stefano Scarpetta and others, "Economic Growth in the OECD Area: Recent Trends at the Aggregate and Sectoral Level," Economics Department Working Paper 248 (Paris: Organization for Economic Cooperation and Development, 2000), pp. 41–43. The age structure of OECD countries varies, so some countries have a larger proportion of their populations in the fifteen to sixty-four age group. The calculations in figure 6 attempt to remove this variation and focus solely on differences in the utilization of the potential working-age population.

31. See Arjona, Ladaique, and Pearson, "Growth, Inequality, and Social Protection."

32. Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review*, vol. 45, no. 1 (1995), pp. 1–28.

33. The correlation between average income and the Gini coefficient is +0.18 if the United States is included and –0.27 if the United States is excluded. The seventeen countries are the ones shown in figures 4 and 5. In calculating the correlation of average income and inequality, we use the most recent OECD estimates of GDP per capita in purchasing-power-parity exchange rates for 2000 and the LIS estimates of the Gini coefficient of final income inequality shown in figure 4.

34. See Francisco H. G. Ferreira, "Inequality and Economic Performance: A Brief Overview to Theories of Growth and Distribution," World Bank, 1999 (www.worldbank.org/poverty/inequal/index.htm).

35. Arthur Okun, *Equality and Efficiency: The Big Tradeoff* (Brookings, 1975).

36. The limitations of microeconomic evidence on the effect of pension incentives on the timing of retirement are discussed in Gary Burtless, "An Economic View of Retirement," in Henry J. Aaron, ed., *Behavioral Dimensions of Retirement Economics* (Brookings, 1999), pp. 30–40. Robert Axtell and Joshua Epstein, "Coordination in Transient Social Networks: An Agent-Based Computational Model of the

Timing of Retirement,” in Aaron, *Behavioral Dimensions of Retirement Economics*, pp. 161–84, argue that the gradual decline in the average U.S. retirement age is appropriately modeled as a shift in social norms through the imitation of peer behavior. Cross-national evidence on the impact of pension incentives on retirement is presented in Jonathan Gruber and David A. Wise, “Introduction,” in Gruber and Wise, eds., *Social Security and Retirement around the World* (University of Chicago Press, 1999).

37. For good surveys, see Ferreira, "Inequality and Economic Performance"; and Philippe Aghion, Eve Caroli, and Cecilia García-Peñalosa, "Inequality and Economic Growth: The Perspective of the New Growth Theories," *Journal of Economic Literature*, vol. 37, no. 4 (1999), pp. 1615–60.

38. For an examination of some of these issues, see John Roemer, *Equality of Opportunity* (Harvard University Press, 1998); or Christopher Jencks, “Whom Must We Treat Equally for Educational Opportunity to Be Equal?” *Ethics*, vol. 98 (April 1988), pp. 518–33.

39. Susan E. Mayer, *What Money Can't Buy: Family Income and Children's Life Changes* (Harvard University Press, 1997).

40. Susan E. Mayer, “How Did the Increase in Economic Inequality between 1970 and 1990 Affect Children’s Educational Attainment?” *American Journal of Sociology*, vol. 107 (July 2001), pp. 1–32.

41. See, for example, Richard Wilkinson, *Unhealthy Societies: The Afflictions of Inequality* (London: Routledge, 1996).

42. Anders Bjorklund and Markus Jantti, “Intergenerational Mobility of Socioeconomic Status in Comparative Perspective,” *Nordic Journal of Political Economy*, vol. 26, no. 1 (2000), pp. 3–33.

43. Ibid. The samples for these five countries all exceed 1,500.

44. See Robert Erikson and John Goldthorpe, “Are American Rates of Social Mobility Exceptionally High? New Evidence on an Old Question,” *European Sociological Review*, vol. 1 (May 1985), pp. 1–22.

45. See, for example, Christopher Jencks, *Rethinking Social Policy: Race, Poverty, and the Underclass* (Harvard University Press, 1992), table 1.1.

46. For data on changes in the effect of family background on children’s family income in adulthood, see David Harding and others, “The Changing Effect of Family Background on the Incomes of American Adults,” in Samuel Bowles, Herbert Gintis, and Melissa Osborne, eds., *Unequal Chances: Family Background and Economic Success* (New York: Russell Sage, forthcoming).

47. David Ellwood and Thomas Kane, “Who Is Getting a College Education? Family Background and the Growing Gaps in Enrollment,” in Sheldon Danziger and Jane Waldfogel, eds., *Securing the Future: Investing in Children from Birth to College* (New York: Russell Sage, 2000).

48. Average undergraduate tuition, room, and board at a public four-year college rose from \$2,327 in the spring of 1980 to \$5,693 in the spring of 1992; National Center for Education Statistics, *Digest of Education Statistics, 2000* (Government Printing Office, 2001), table 313. Median pretax family income rose from \$19,587 in 1979 to \$35,939 in 1991; U.S. Bureau of the Census, *Money Income in the United States, 1999* (GPO, 2000), tables B-1 and B-4.

49. See Thomas Kane, *The Price of Admission: Rethinking How Americans Pay for College* (Brookings, 1999).

50. Mayer, “How Did the Increase in Economic Inequality between 1970 and 1990 Affect Children’s Educational Attainment?”

51. The argument that inequality is bad for health goes back to the 1970s. Recent research on the topic was inspired by Richard Wilkinson, “Income Distribution and Life Expectancy,” *British Medical Journal*, vol. 304 (January 1992), pp. 165–68. For a recent summary, see Ichiro Kawachi and Bruce P. Kennedy, *The Health of Nations: Why Inequality Is Harmful to Your Health* (New Press, 2002).

52. Both Wilkinson, “Income Distribution and Life Expectancy,” and much subsequent work in public health have emphasized the social and psychological effects of economic inequality. For a wide range of papers in this tradition, see Ichiro Kawachi, Bruce Kennedy, and Richard Wilkinson, eds. *The Society and Population Health Reader*, vol. 1, *Income Inequality and Health* (New Press, 1999). Although there is strong evidence that changes in an individual’s position within a social or economic hierarchy can have important health consequences, there is little evidence that changes in the economic distance between such positions affects people’s health (but see Christine Eibner and William Evans, “Relative Deprivation, Poor Health Habits, and Mortality,” Working paper, Department of Economics, University of Maryland, 2001).

53. The National Longitudinal Mortality Survey measured Americans’ total family income around 1980 and then used the national death index to identify family members who died over the next few years. Each family was assigned to one of seven income groups. In today’s dollars the bottom five intervals correspond to households with incomes below \$50,000, each covering a \$10,000 interval. The next interval runs from \$50,000 to \$99,999, and the top interval covers families with incomes of more than \$100,000. Like all estimated life expectancies, those shown here assume that mortality rates observed at

the time would continue into the indefinite future. The life expectancies are higher than those for the general population because (a) they are estimated for individuals who survived to age twenty-five, and (b) they do not include individuals who were institutionalized at the time of the initial survey. The bottom five intervals are assigned their midpoint. The top two intervals are assigned values based on the estimated distribution for all households at the time. Incomes are converted to 2000 dollars using the CPI-U-RS.

54. Moving from the lowest income interval to the median raised a man's life expectancy 7.2 years. Moving from the median to the highest income interval (the richest 5 percent of the sample) raised a man's life expectancy only 2.8 years. For men below the median, each \$10,000 increment in family income lengthened life about 2.4 years. Once a man's family income reached the median, it took another \$90,000 to raise his life expectancy 2.4 years. Income matters less for women, but the law of diminishing returns operates in much the same way for women as for men.

55. The reduction in life expectancy would have been about 0.32 years for white men and 0.15 years for white women. The observed increase in white life expectancy at age twenty-five during these years was 2.7 years for men and 1.2 years for women. The changes in life expectancy at age twenty-five are from National Center for Health Statistics, *National Vital Statistics Report*, vol. 47, no. 28 (1999), pp. 14–16, and vol. 50, no. 6 (2002), pp. 30–31. The estimated effect of letting inequality increase assumes that, in the absence of such an increase, life expectancy at age twenty-five would have risen $2.7 + 0.32 = 3.02$ years for white men and $1.2 + 0.15 = 1.35$ years for white women.

56. See, for example, James P. Smith, "Healthy Bodies and Thick Wallets: The Dual Relation between Health and Economic Status," *Journal of Economic Perspectives*, vol. 13 (Spring 1999), pp. 145–66.

57. LIS calculates Gini coefficients after adjusting household income for household size and imposing uniform top codes for all countries, so its estimates are somewhat lower than those found elsewhere in the literature, but the LIS estimates are also more nearly comparable across countries. Figure 8, top panel, covers countries that supplied LIS with income data for at least one year between 1994 and 1997. Because life expectancy data rise rapidly over time, all life expectancies are for 1996 and come from National Center for Health Statistics, *Health, United States, 2001* (GPO, 2001), table 27.

58. In America, for example, the Gini coefficient increased 3.7 points between 1974 and 1994. Figure 8, bottom panel, implies that a change of this magnitude lowers life expectancy about 0.6 year. Unfortunately, this estimate has a very large sampling error. Indeed, with only six countries we cannot

rule out the possibility that increases in economic inequality actually increase longevity. If one excludes both Britain and the United States, the relationship between changes in inequality and changes in longevity is very strong. But any relationship based on just four countries is subject to enormous statistical variability.

59. Clarkwest's estimate is less than half that shown in figure 8. Because it is based on far more observations, however, there is only one chance in ten that it occurred by chance. Details are available in Andrew Clarkwest, "Notes on Cross-National Analysis of the Relationship between Mortality and Income Inequality," Harvard University, Kennedy School of Government, Malcolm Wiener Center for Social Policy, 2000 (www.ksg.harvard.edu/socpol/MWCstdntresearch.htm). Clarkwest uses a fixed-effects model with sixteen countries, which contribute an average of four years of data each. Such a model will be biased downward if there are lagged effects, but although we expected to find such effects, none were statistically significant in either cross-national comparisons or comparisons among American states.

60. These estimates focus on life expectancy at birth, whereas the estimates derived from figure 7 focus on life expectancy at age twenty-five.

61. The most unequal states are in the Deep South, but the effects in question persist with regional controls. The quality of care measures are from Stephen Jencks and others, "Quality of Medical Care Delivered to Medicare Beneficiaries," *Journal of the American Medical Association*, vol. 284 (October 4, 2000), pp. 1670–76. We link these measures to states' economic and demographic characteristics in the 1990 census. The quality of care is assessed by comparing the treatment of Medicare patients recorded in their medical records to guidelines recommended by various professional bodies.

62. John Rawls, *A Theory of Justice* (Harvard University Press, 1971).

63. Robert Nozick, *Anarchy, State, and Utopia* (Basic Books, 1971).

Table 1: Percent of High-School Graduates Enrolling in a Four-Year College or Some Other Form of Postsecondary Education within Twenty Months of Graduation, by Income Quartile: 1980–1982 and 1992

Income quartile	High school graduation year		Change
	1980–1982	1992	
Lowest	29	28	-1
Second	33	38	5
Third	39	48	9
Highest	55	66	11
All	39	45	6

Source: David Ellwood and Thomas Kane, “Who Is Getting A College Education? Family Background and the Growing Gaps in Enrollment,” in Sheldon Danziger and Jane Waldfogel, eds., *Securing the Future* (New York: Russell Sage, 2000).

Figure 1. Trend in Family Income Inequality, 1947-2001

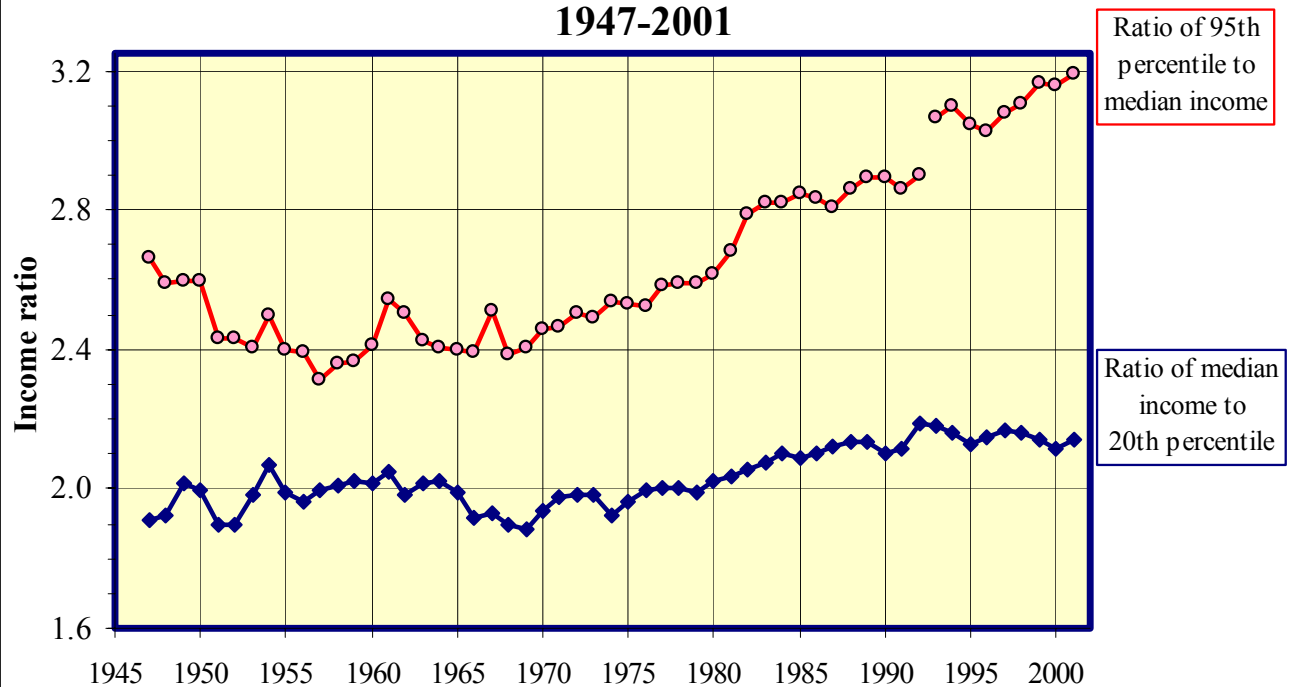


Figure 2. Annual Growth Rate of Real Income across the U.S. Family Income Distribution, 1947-2001

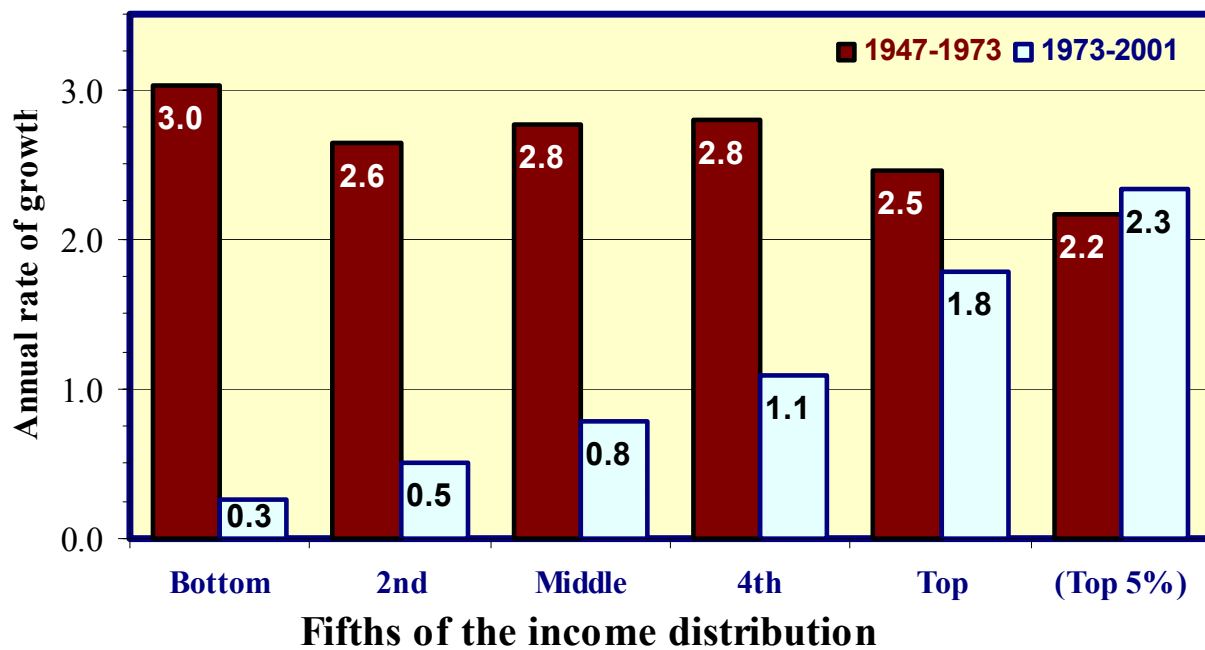
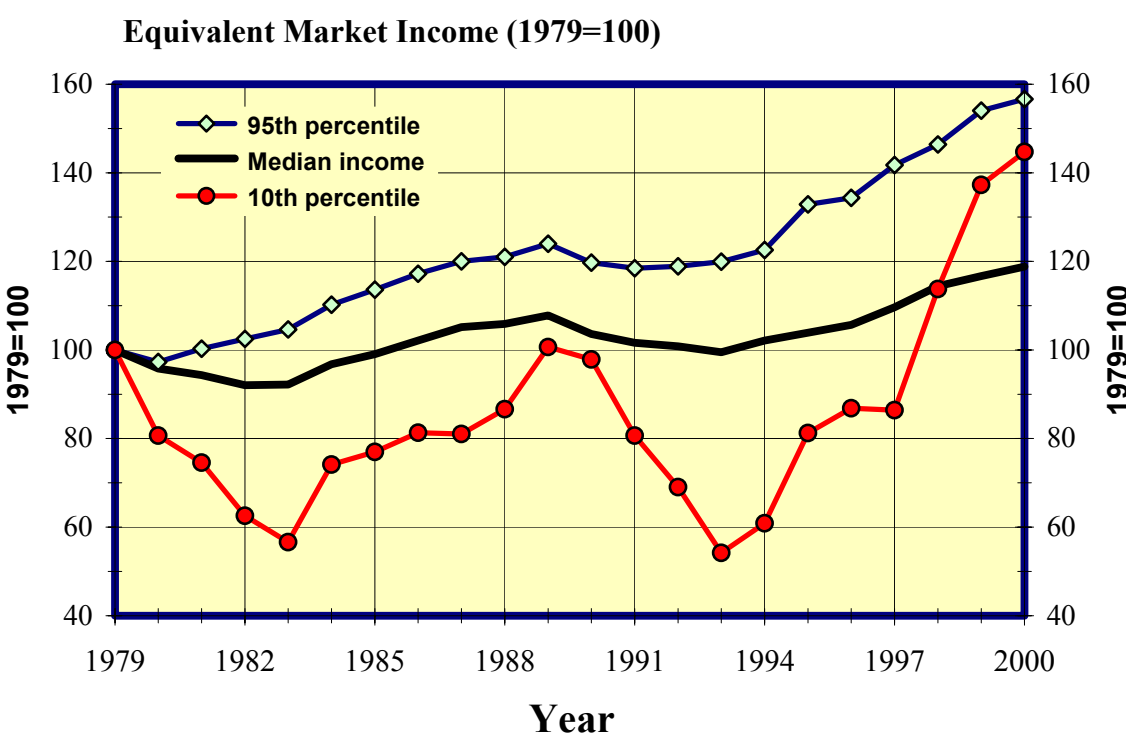
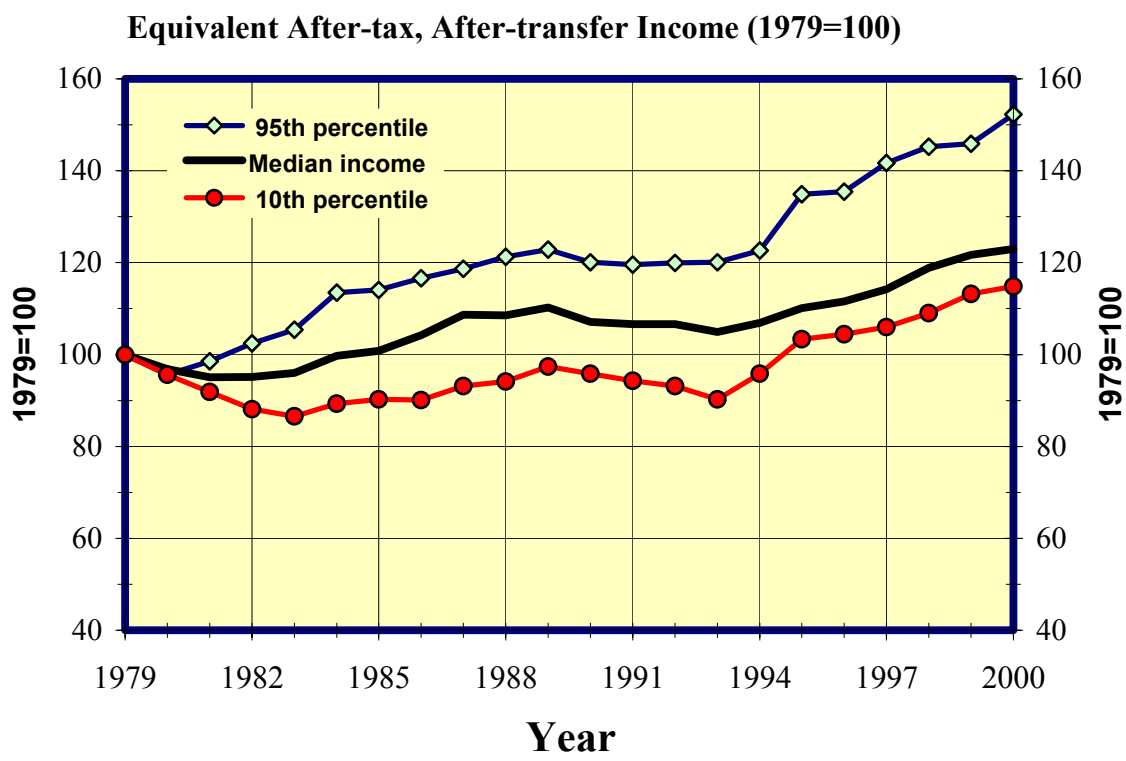
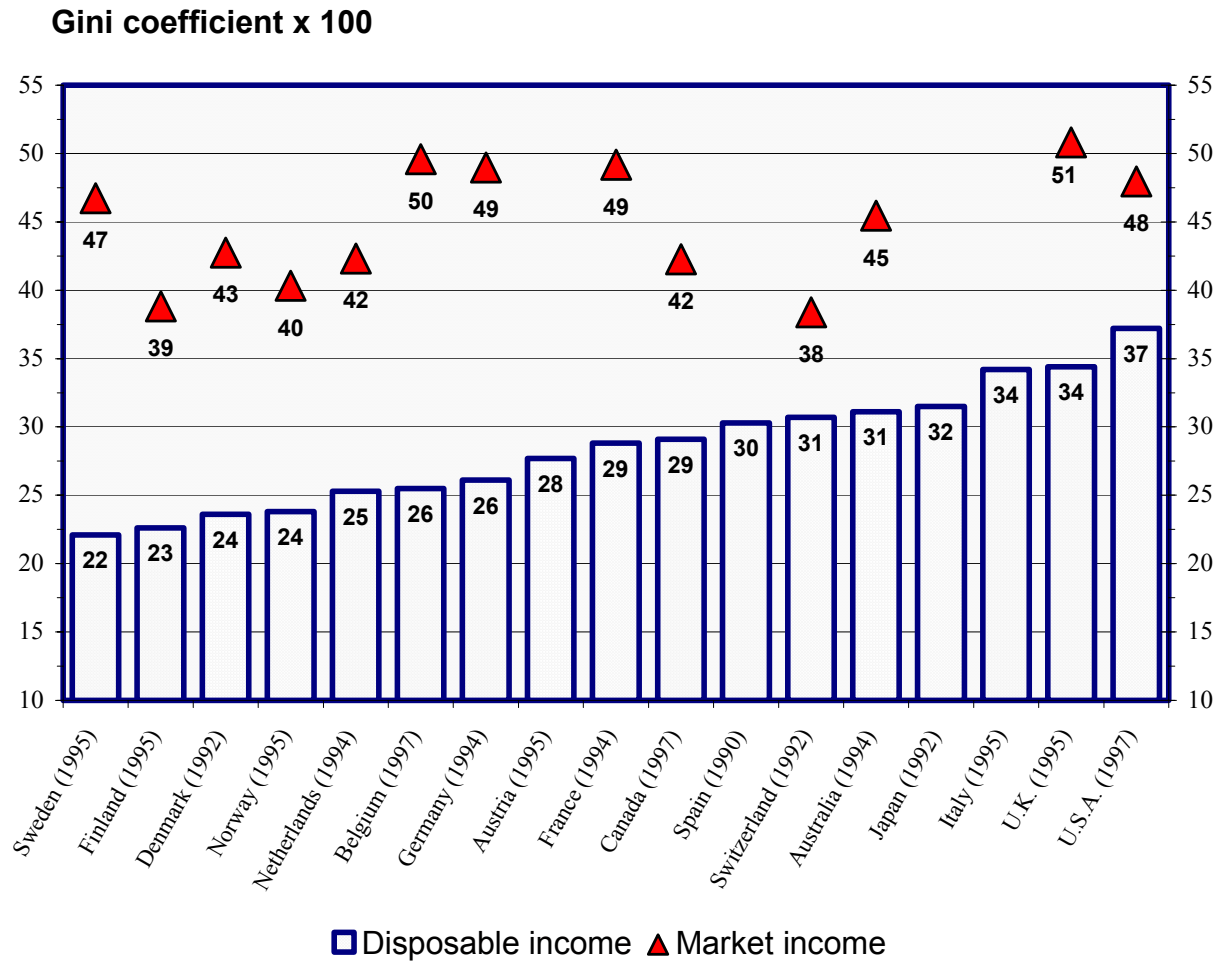


Figure 3. Trends in Size-Adjusted Household Incomes before and after Taxes and Transfers at Selected Points in Distribution, 1979-2000



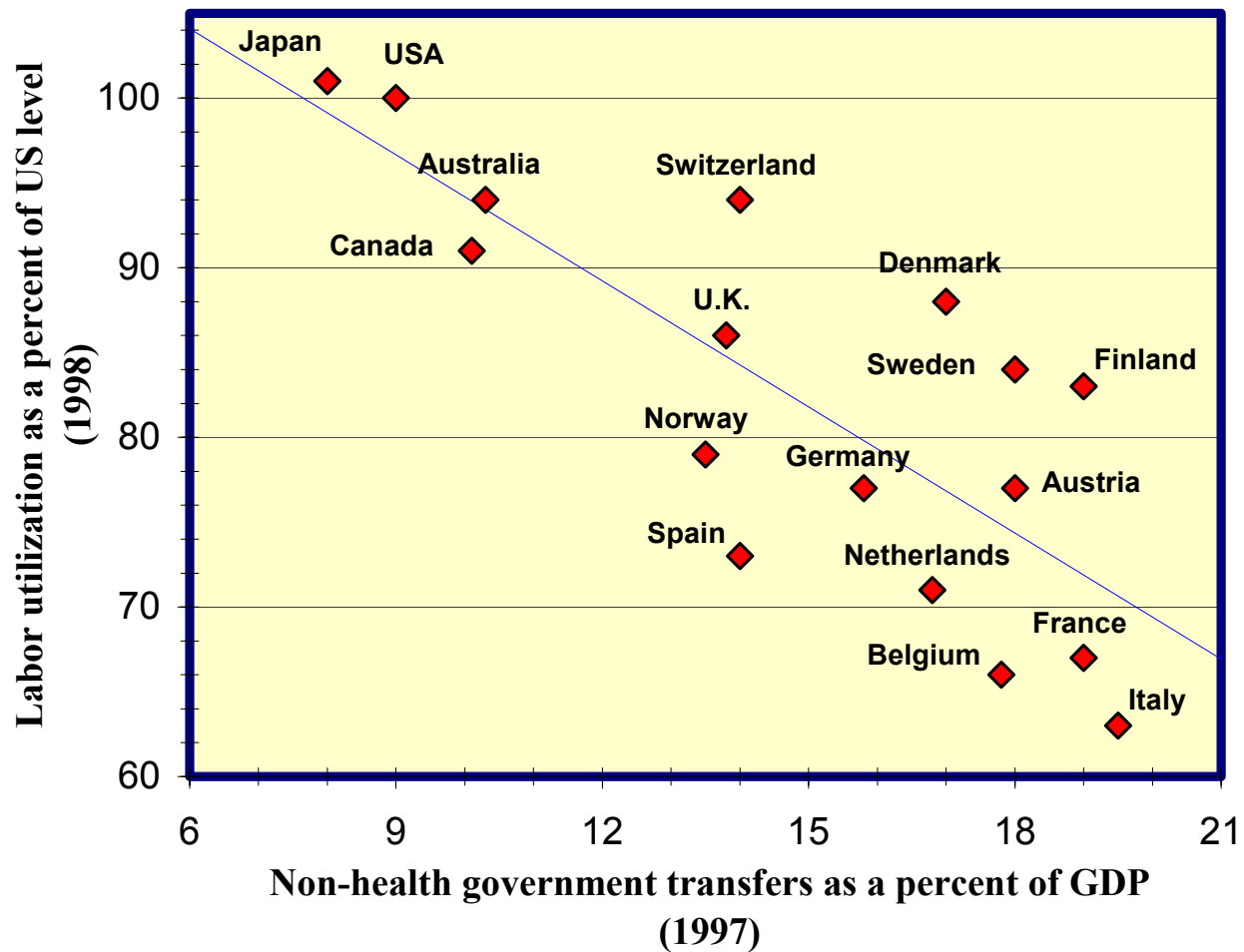
Note: Annual earnings of full-time, year-round workers are deflated using CPI-U-RS price index.
Source: Authors' tabulations of 1980-2001 March CPS files.

Figure 4. Inequality of Market Income and Net Disposable Income in OECD Countries, 1990s



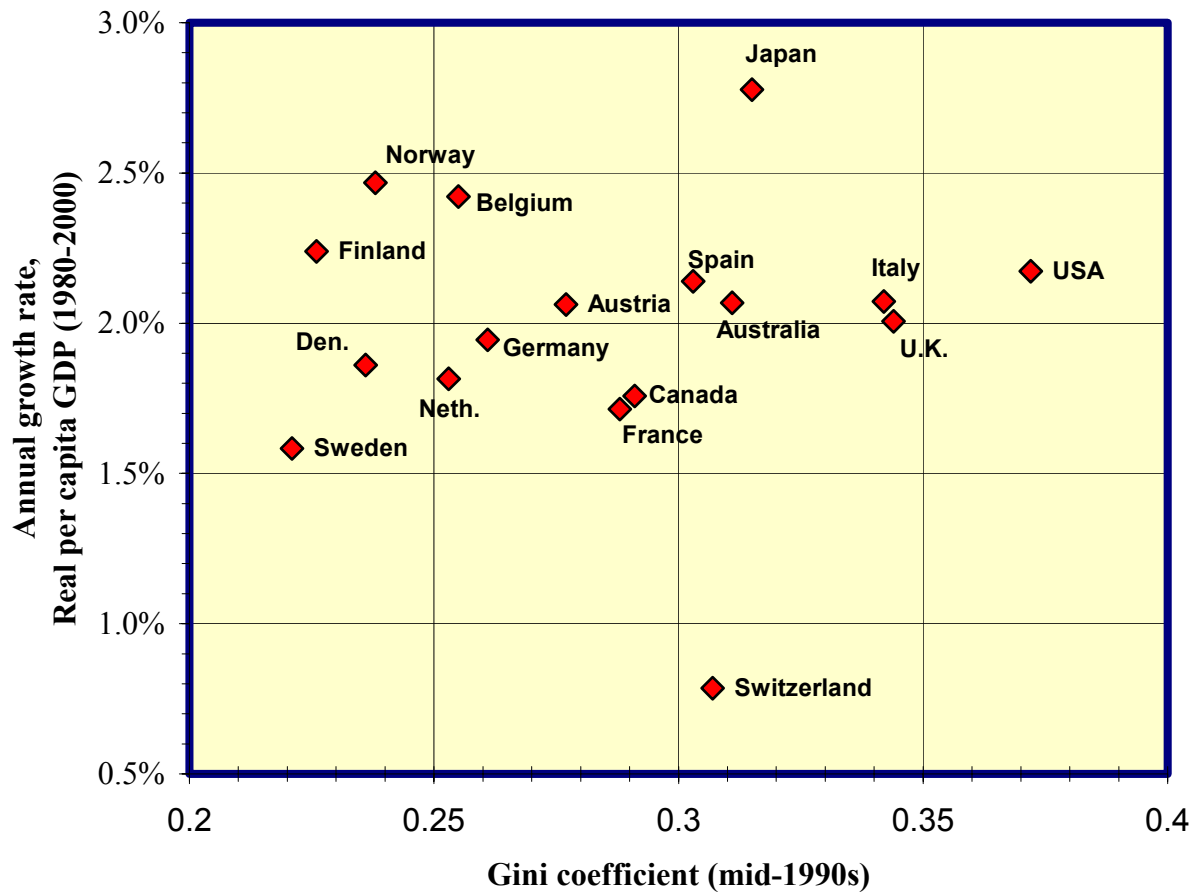
Sources: Luxembourg Income Study.

Figure 5. Social Spending and Utilization of Labor in OECD Countries, 1997-1998



Sources: Transfers - OECD, *Society at a Glance: OECD Social Indicators* (Paris: 2001); Labor Utilization - Scarpetta et al. (OECD, 2000).

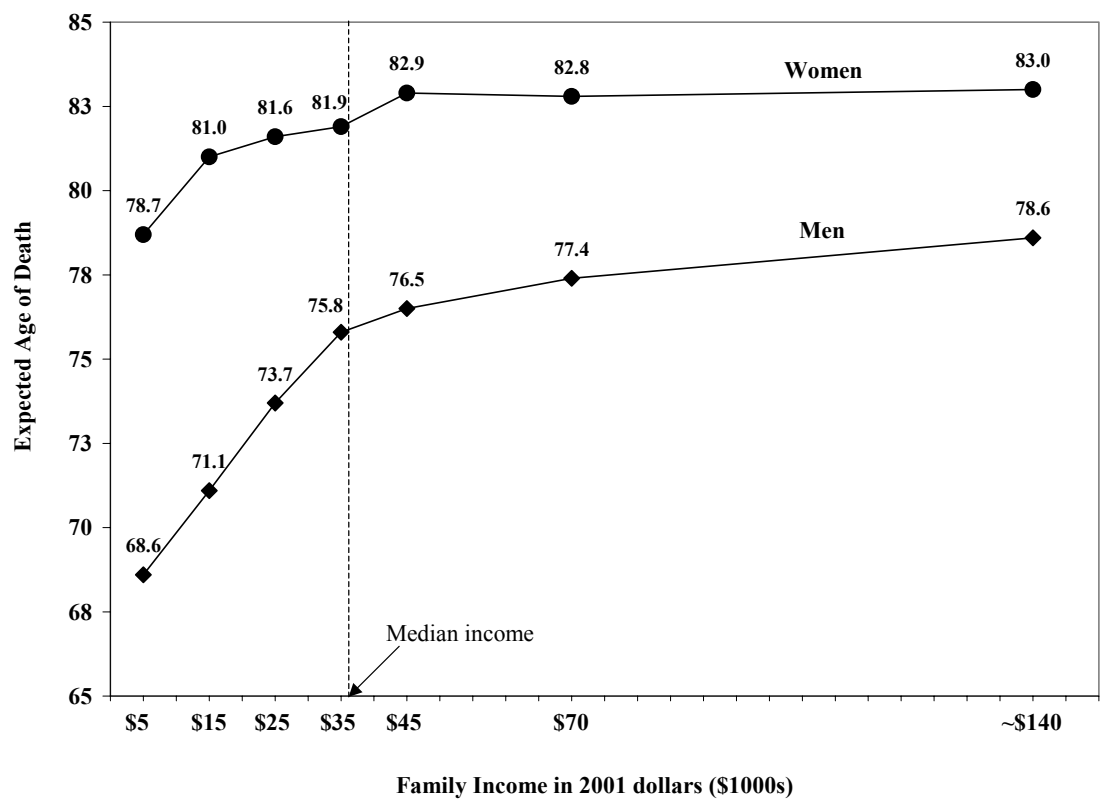
Figure 6. Relation of Income Inequality and Growth Rate of GDP Per Capita in OECD Countries



Sources: Gini coefficient: Luxembourg Income Study (see Figures 4 and 5); Per capita GDP growth rate: International Monetary Fund, World Economic Outlook Data file <Downloaded 26-June-2002>.

Figure 7

Expected Age of Death among White Men and Women in the NLMS Who Had Survived to Age 25, by Family Income



Source: Eugene Rogot, Paul Sorlie, and Norman Johnson, "Life Expectancy by Employment Status, Income, and Education in the National Longitudinal Mortality Study," *Public Health Reports*, July-August 1992, 107(4): 457-461.

Figure 10A. Income inequality and life expectancy in the US and twelve other rich democracies in the mid-1990s.

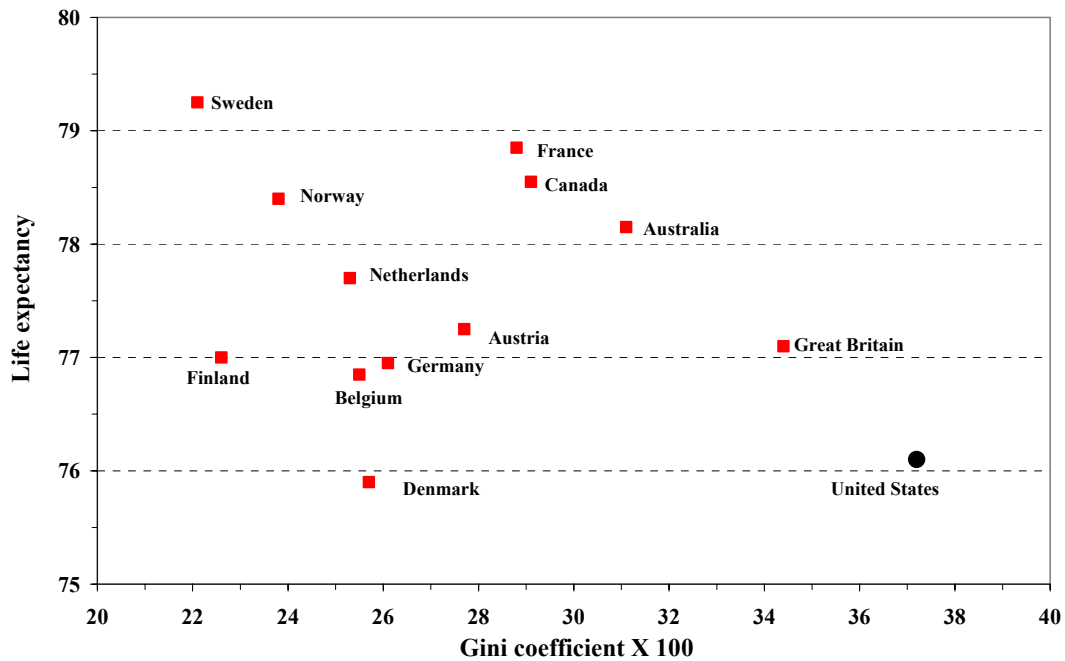
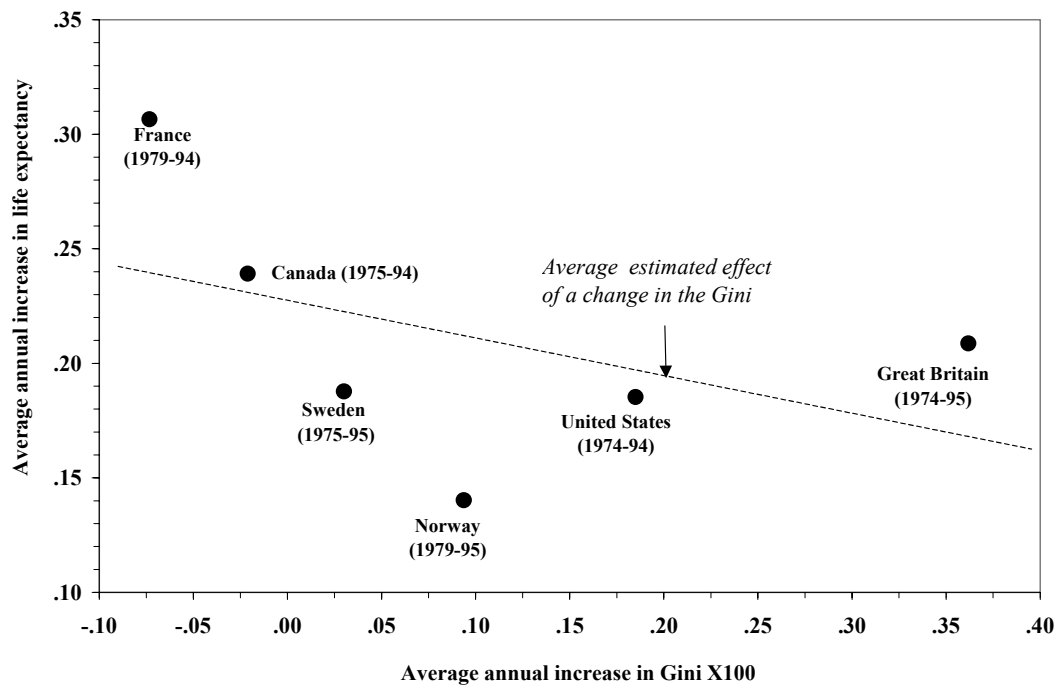


Figure 10B. Average annual change in life expectancy by average annual change in income inequality for six rich countries with data for 1974-79 and 1994-95



Source: Authors' calculations from data assembled by LIS and NCHS. The estimated effect of the average annual within-country change in the Gini (ΔG) on the average annual change in life expectancy is $.227 - .165(\Delta G)$. The standard error of the coefficient on ΔG is .159.