The State of Working America
12th Edition

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Poverty

Poverty
The Great Recession adds injury to insult

This book offers a detailed discussion of rising economic inequality as evident in growing inequality of wages, incomes, and wealth in America. This growing inequality, which helps explain stagnant income growth for most households for more than three decades, has also been a critical factor at the bottom of the income distribution. As income inequality increases, poverty becomes less responsive to overall growth because too little of that growth reaches individuals and families at the lower end of the income scale.

Before the mid-1970s, U.S. economic growth was associated with falling poverty rates (measured as the share of the population below the official poverty line). If that relationship had continued to hold, poverty would have been eradicated during the 1980s. It did not; the economy continued to grow, but poverty stopped falling.

Given the general wage stagnation and slow income growth everywhere but at the top, it is not surprising that little improved for those at the bottom over the last 30 years. Prosperity has not been broadly shared, and least of all for those at the very bottom.

Many Americans work in jobs that barely keep them above water. About one-fourth of workers earn poverty-level wages, wages at or below the wage a full-time, full-year worker would need to earn to reach the poverty threshold for family of four, which was $22,314 in 2010.

Furthermore, lower-wage workers are more susceptible to the ebbs and flows of the economy. Periods of high productivity and low unemployment tend to be associated with strong wage growth and reductions in poverty, as occurred in the strong economy of the 1990s. A decline in the unemployment rate has a larger

effect on wages at the bottom: Wage gains from lower unemployment are roughly twice as high for the lowest-wage male workers as they are for middle- and high-wage workers.

As the unemployment rate rises, wages at the bottom of the wage distribution fall the most. It is no surprise that falling poverty reversed course in the weak economy of the 2000s, with across-the-board increases in poverty that were particularly large for families with children. Between 2000 and 2007, the workforce was highly productive but poverty increased, largely due to rising income inequality (and not, as some have wrongly claimed, from changes in the composition of American families).

With the Great Recession came steep increases in the poverty rate, from 12.5 percent in 2007 to 15.1 percent in 2010. Just over 46 million people in the United States were in poverty in 2010.

Poverty is even higher among certain demographic groups. In 2010, the poverty rates of Hispanics (26.6 percent) and of African Americans (27.4 percent) were more than two and half times the poverty rate of whites (9.9 percent). Minority children fared even worse: In 2010, close to half (45.8 percent) of young black children (under age 6) were in poverty, compared with 14.5 percent of white children.

The social safety net, namely Social Security, unemployment insurance, the Earned Income Tax Credit (EITC), and the Supplemental Nutritional Assistance Program (SNAP), among other programs, have prevented more-devastating outcomes. Unfortunately, the safety net in the United States has become weaker over time, and workers at the bottom end rely more heavily on wages and a strong economy to make ends meet. Unemployment insurance is particularly vital to countering increases in poverty in bad economic times. In 2010, unemployment insurance kept 900,000 children and 2.3 million non-elderly adults out of poverty even though one or more workers in these vulnerable households were laid off (Renwick 2011).

When we compare the United States to its international peers, it is clear how woefully inadequate the U.S. safety net is. While the top 1 percent in the United States claims a larger share of overall income than their counterparts in peer countries (see Chapter 2, Figure 2AB), it does not mean that U.S. families at the bottom of the income scale enjoy a similar relative economic advantage vis a vis their international peers. In fact, in the United States, earnings (wages) at the bottom, measured at the 10th percentile of the earnings distribution, are lower than in many U.S. peer countries. Therefore, when people fall out of the middle in the United States, they are more likely to fall further (in dollar terms) than their downwardly mobile peers in other countries. And, as shown in Chapter 3, those at the bottom in the United States are more likely to be stuck there generation after generation than low-income people in U.S. peer countries.

All of these factors play a role in the higher poverty rate in the United States compared with other developed countries, a comparison made possible by examining the "relative poverty" measure—the share of the population living in households with incomes below half of the household median income. This measure tracks economic distance between the poor and the middle.

In the late 2000s, the United States had the highest relative poverty rate among 23 Organisation for Economic Co-operation and Development (OECD) countries—17.3 percent compared with 9.6 percent on average among the other countries studied. The extent of child poverty in the United States is even more severe: More than one in five children in the United States lived in poverty in 2009—a share more than twice as high as in peer countries on average.

U.S. efforts to allocate resources to the bottom end of the income scale also lag peer countries: The United States spends 16.2 percent of gross domestic product on social programs, well below the vast majority of peer countries, which average 21.3 percent. Unsurprisingly, then, the U.S. safety net (the system of taxes, transfers, and social welfare benefits) is the least effective in terms of reducing poverty: The U.S. tax-and-transfer system reduced poverty by 9.7 percentage points in the late 2000s, compared with the average 17.4 percentage-point reduction by the tax-and-transfer systems in other peer countries. In short, peer countries are much more likely than the United States to step in where markets and labor policy fail in order to lift their most disadvantaged citizens out of poverty.

Table notes and figure notes at the end of this chapter provide documentation for the data, as well as information on methodology, used in the tables and figures that follow.

Poverty measurement

Dividing lines between income groups are somewhat arbitrary, and there are many ways to define "low income." In this section, we explore three different measures: the official poverty line, the Supplemental Poverty Measure recently designed by the U.S. Census Bureau, and a measure of relative poverty defined as the share who live below half of median income. In later sections, we explore low-income individuals and families by looking at those with poverty-level wages and those in the bottom of the wage or income distribution.
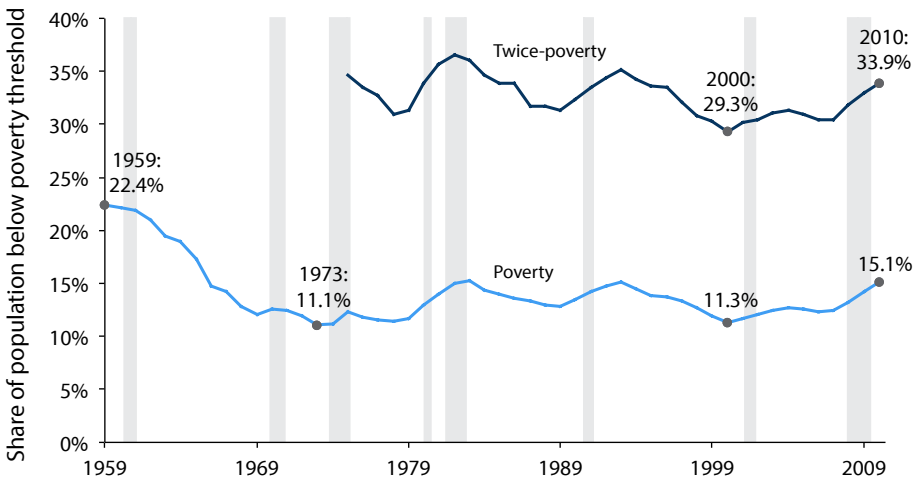
Official poverty line
The official poverty line was set in the 1960s at approximately three times a basic food budget, adjusted by family size and composition, and is updated annually by overall inflation. In 2010, the poverty line was $22,314 for a family of four, $22,113 for a family of four with two children, and $11,344 for a single individual under age 65.

The poverty rate is the share of people below the official poverty line. In 2010, the rate was 15.1 percent, or just over 46 million people. As shown in **Figure 7A**, the poverty rate fell fairly significantly from 1959, when it stood at 22.4 percent, to its historical low of 11.1 percent in 1973. Since then it has generally tracked business cycles, rising in recessions and falling in economic expansions. However, the poverty rate actually *increased* during the recovery that followed the 2001 recession, and when the Great Recession hit at the end of 2007, the poverty rate increased sharply—by 2.6 percentage points from 2007 to 2010.

Figure 7A also displays the "twice-poverty rate," officially the share of the population below twice the poverty line. This is an important measure to poverty researchers and many government programs because it recognizes that many people between 100 and 200 percent of the poverty line can find it hard to make ends meet. The share of the population below twice the poverty line, or below 200 percent of poverty, varies dramatically with business cycles. The latest data indicate that the twice-poverty rate rose 3.4 percentage points since the start of the Great Recession, from 30.5 in 2007 to 33.9 percent in 2010. In 2010, over one-third of Americans were living below twice the poverty line.

**Figure 7A** **Poverty and twice-poverty rates, 1959–2010**

Note: The poverty rate is the share of the U.S. population with income below the official poverty line (where income is measured in terms of family income for persons in families and individual income otherwise) and the twice-poverty rate is the share with income below twice the official poverty line. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Tables 2 and 5)

In 2010, elderly individuals (people age 65 and older) had the lowest rates of poverty, followed by non-elderly adults, and then children (**Figure 7B**). Children under age 6 are nearly twice as likely to live in poverty as are adults age 18 to 64. This is explained partly by the fact that adults are usually at relatively early stages of their working lives when they have young children, and therefore are more likely to earn less than adults in later stages of their working lives. Figure 7B also demonstrates the dramatic decline in poverty rates from 1959 through the early 1970s, particularly for those age 65 and older. This large decline in overall poverty was due to a combination of economic factors discussed later in this section as well as the significant expansion of Social Security benefits, which especially reduced poverty among the elderly.

The dramatic changes in poverty rates over business cycles are clearer when examining subgroups of the U.S. population by race and ethnicity, and by age. **Figure 7C** highlights the stark disparities in poverty rates by race and ethnicity: The poverty rate of African Americans and Hispanics is nearly three times that of whites. While whites have lower poverty rates, their relatively flat poverty trend line conceals the fact that their poverty rates also rise and fall with business

Figure 7B **Poverty rate, by age, 1959–2010**
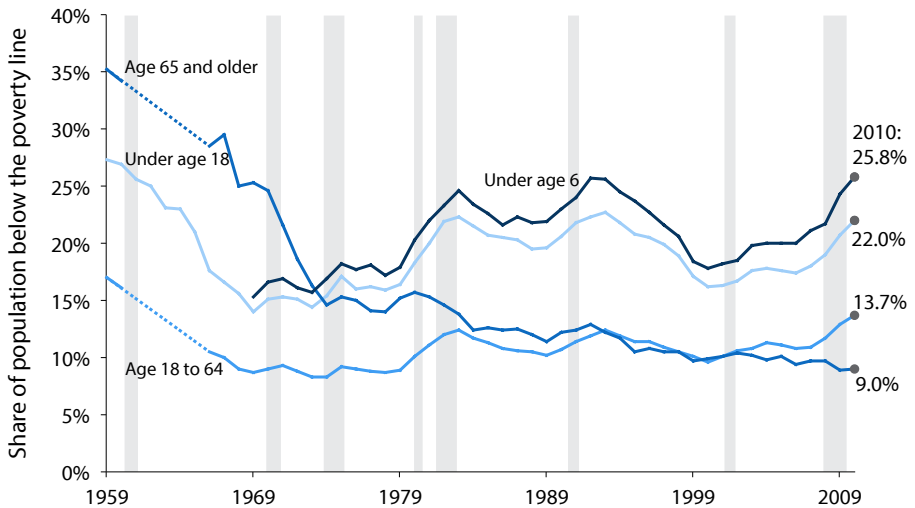
Note: For the age 18–64 and age 65 and older groups, no formal data exist for 1960–1965. The dotted lines denote a linear extrapolation between 1959 and 1966. Data for the under age 6 group begin in 1969. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) *Historical Poverty Tables* (Table 3) and CPS-ASEC microdata

Figure 7C Poverty rate, by race and ethnicity, nativity, and citizenship status, 1973–2010
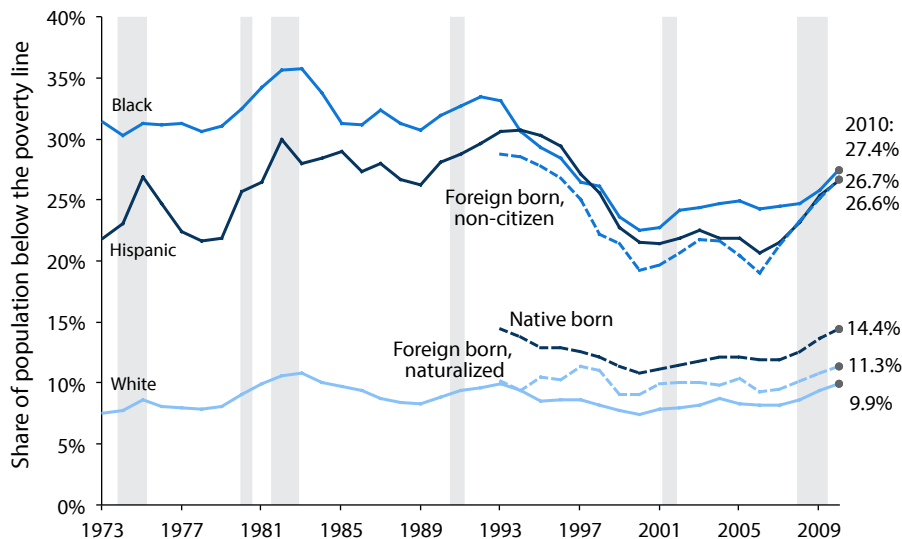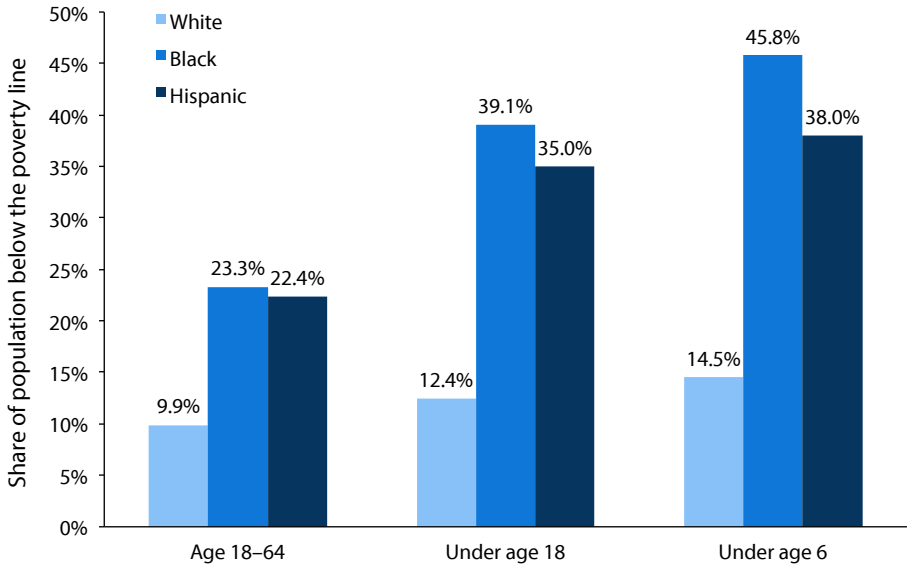

Note: Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Tables 2 and 23)

cycles. What is most striking about the nonwhite population is the steep fall in poverty rates over the 1990s economic expansion. The declines in poverty among blacks and Hispanics in the mid- to late 1990s were due to a combination of macroeconomic factors, including high productivity and low unemployment, which increased wages across the entire income distribution and lifted many out of poverty.

Though immigrants on average have higher poverty rates than the native born, poverty differs between immigrant groups. As Figure 7C shows, foreign-born noncitizens have poverty rates over twice as high as foreign-born naturalized citizens. The poverty rates of noncitizens closely track those of Hispanics. While naturalized citizens likely differ in measurable ways from noncitizens (e.g., by country of origin, education/skills level, etc.), they also likely face certain economic advantages, such as broader job opportunities, that give them a leg up over noncitizens.

Figure 7D combines data on race and ethnicity, and age, to highlight the stark disparities between whites and minorities and the extent of poverty among African Americans and Hispanics. More than 1 in 3 African American and Hispanic children were poor in 2010, compared with about 1 in 8 white children.
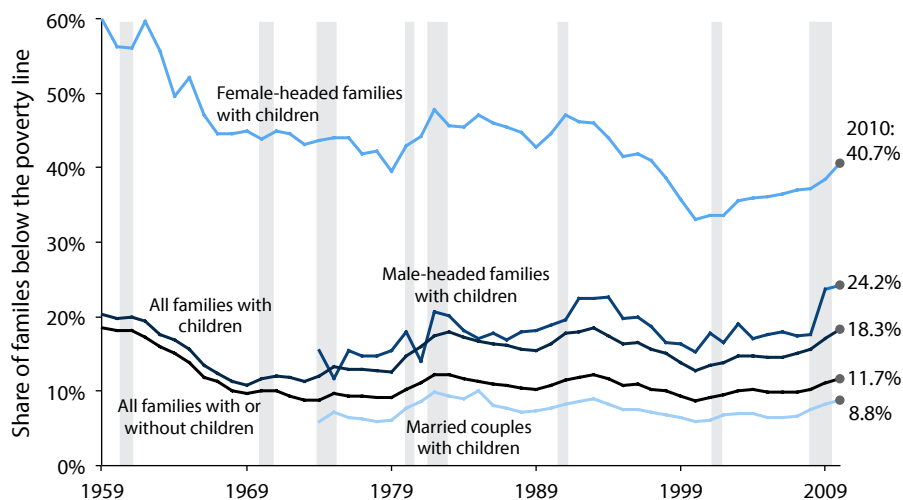
Figure 7D Poverty rate, by race and ethnicity, and age, 2010

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) *Historical Poverty Tables* (Table 3) and CPS-ASEC microdata

Nearly 46 percent of young black children (under age 6) lived in poverty in 2010, more than three times the rate of young white children.

Child poverty rates are a function of a family's income. In **Figure 7E,** the unit of observation shifts from persons to families, defined by the U.S. Census Bureau as households with two or more persons related through blood, marriage, or adoption. The poverty rate for all families was 11.7 percent in 2010, lower than the 15.1 percent poverty rate for persons, reflecting both the relatively high number of poor children and the inclusion of unrelated individuals in the person counts but not in the family counts. For families with children, the poverty rate was 18.3 percent in 2010.

The three remaining lines in Figure 7E refer to the poverty rates of three common family types: families with children that are female-headed, male-headed, and headed by married couples. Poverty rates of married couples with children are much lower—8.8 percent in 2010—in part because families can tap two earners when both spouses work in the paid labor market. In 2010, the poverty rate of female-headed families with children was 40.7 percent, more than four and a half times that of married-couple families with children and nearly 70 percent higher than that of male-headed families with children (24.2 percent). The poverty rate of female-headed families with children fell significantly through most of the

**Figure 7E** Poverty rates of various types of families, 1959–2010

Note: Data for married couples with children and male-headed families with children are only available beginning in 1974. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Table 4)

1970s before increasing through the early 1980s, declined through the rest of that business cycle, fell sharply in the 1990s, and then climbed through the last entire business cycle (2000–2007), even when the economy was theoretically expanding. Male-headed families with children experienced similar fluctuations starting in the early 1980s, albeit with a particularly sharp jump in poverty in the Great Recession; 6.1 percentage points from 2008 to 2009. This increase was driven by the fact that men were harder hit by job loss in the recession (see Chapter 5 for additional gender-based labor market analyses).

The general decline of family poverty in the strong economy of the 1990s reversed course in the weakening economy of the 2000s, with across-the-board increases that were particularly large for single-mother and single-father families. This reversal highlights the cyclical effects of policy and the economy on lowering poverty, wherein those policies that tend to help reduce poverty in a strong economy or job market (e.g., the minimum wage) fail to help as much in a weaker one. (Both the characteristics of the economy of the late 1990s and antipoverty policy will be discussed in greater detail later in the chapter.)

As a measure of poverty, the poverty rate captures a snapshot in time, which misses the fact that different people cycle in and out of poverty over time. For instance, although the poverty rate averaged 13.8 percent across 2008 and 2009, far

**Figure 7F** Length of time in poverty over a two-year period, 2008–2009
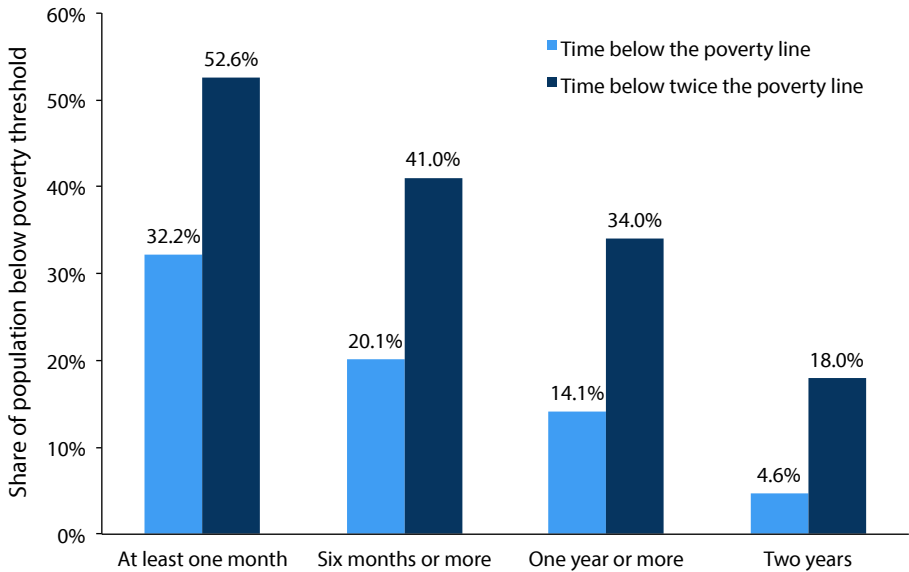
Source: Authors' analysis of U.S. Census Bureau Survey of Income and Program Participation microdata, 2008 panel

greater shares of people fell into poverty at some point in those years; as **Figure 7F** demonstrates, about one-third of the population fell below the poverty line for at least one month over that two-year period. In addition, about one-fifth of people were below the poverty line for at least six months in 2008–2009, and only 4.6 percent were in poverty the entire two years.

Figure 7F also illustrates "churning" below twice the poverty line. On average, 32.5 percent of people were below twice the poverty line during 2008 and 2009 (Figure 7A). However, when monthly income changes are taken into account, over half of the population fell below twice the poverty line for at least one month during those two years.

In short, many more people fall into poverty than suggested by the official rate, and an even greater number are at risk at any given time. Policies to reduce poverty need to recognize that poverty engulfs a much larger share of the U.S. population than annual averages suggest by providing a seamless and accessible safety net for those families threatened with falling into poverty even for short periods.

The need for such policies becomes more apparent when considering that, along with the poverty rate, the depth of poverty has increased. The poor are getting poorer. As shown in **Figure 7G**, a growing share of persons below the poverty line

Figure 7G Share of the poor in "deep poverty," 1975–2010
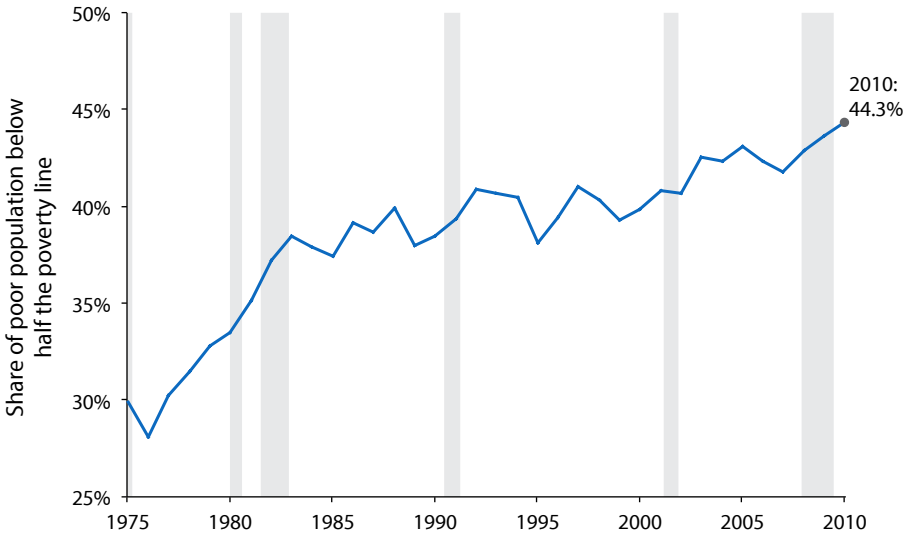
Note: Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Tables 2 and 22)

have incomes below half of the poverty line. This is equivalent to $5,672 per year for one person under 65 years old or $11,057 for a family of four with two children.

In 2010, the share of the poor below half the poverty line reached a high of 44.3 percent. While many poor individuals have incomes close to the poverty threshold, a growing percentage are falling further behind. (A slight deepening occurred even through the later 1990s, when the overall poverty rate fell.) The tight labor market and income supports such as the Earned Income Tax Credit lifted those close to the poverty line above it but those left in poverty were probably the least able to take advantage of either a strong economy or such work-based supports.

Supplemental Poverty Measure

The current official U.S. poverty measure has been used since the 1960s, when it was devised as part of the "War on Poverty." This measure was primarily based on food consumption requirements and not on a full set of goods and services. The poverty line has been updated since the 1960s to reflect overall inflation, using the Consumer Price Index (CPI), but it has not changed to reflect cost increases of other essential consumption items such as housing or medical care, which

consume an increasing share of families' budgets. To correct these and other short-comings, a government-appointed panel convened by the National Academy of Sciences in the mid-1990s was asked to update the way poverty is measured. Based on the panel's recommendations, an interagency technical working group for the U.S. Census Bureau was formed in conjunction with the Bureau of Labor Statistics to develop the Supplemental Poverty Measure, released by the Obama administration in 2011.

The Supplemental Poverty Measure seeks to better reflect both the resources families can access and the true cost of living. While the official poverty measure only counts pretax cash income, the supplemental measure redefines family resources to account for tax provisions such as the EITC and the value of government transfers such as food stamps and housing subsidies. Income is also adjusted

Table 7.1 **Comparison of poverty measures**

|	Official poverty measure	Supplemental Poverty Measure
Threshold	Equal to three times the cost of "Economy Food Plan"	Equal to the 33rd percentile of expenditures on food, clothing, shelter, and utilities of consumer units with exactly two children, multiplied by 1.2
	Adjusted annually by change in the Consumer Price Index	Adjusted annually by the five-year moving average of expenditures on food, clothing, shelter, and utilities
	No geographic adjustment	Geographic adjustments for differences in housing costs
Resources included as income	Total family pretax cash income	Total family after-tax income (including credits such as the Earned Income Tax Credit)
		Includes value of near-cash benefits, such as SNAP, National School Lunch Program, WIC, housing subsidies, and LIHEAP
		Subtracts work-related expenses, such as child care and transportation costs
		Subtracts medical out-of-pocket expenses and child support paid

Note: SNAP is the Supplemental Nutrition Assistance Program; WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children; and LIHEAP is the Low Income Home Energy Assistance Program.

Source: Authors' analysis of Short (2011)

for costs of child care, work-related transportation, and medical care. On the threshold side, the new measure seeks to better calculate the money it takes to live, i.e., pay for food, clothing, shelter, and utilities, by adjusting for average expenditures on these items (accounting for geographic differences in housing costs) as opposed to simply overall inflation. **Table 7.1** provides a detailed summary of how the official and supplemental measures are constructed.

Figure 7H compares poverty rates of people in different age groups under the official and supplemental poverty measures. For the entire population (the first set of bars), the poverty rate is higher under the more comprehensive supplemental measure because that measure is more realistic about what is required to achieve a minimum standard of living. But different groups fare differently. Under the supplemental measure, child poverty (the second set of bars) is lower because families with children are more likely to be beneficiaries of government transfers, while poverty of non-elderly adults is higher because the supplemental measure subtracts work-related expenses such as child care and transportation costs from income. The poverty rate of the elderly increases the most under the supplemental measure due to the higher medical expenses of the elderly. Components of the Supplemental Poverty Measure are discussed in further depth later in the chapter (see "Resources for low-income Americans").

Figure 7H **Poverty rates, official and under the Supplemental Poverty Measure, by age group, 2010**
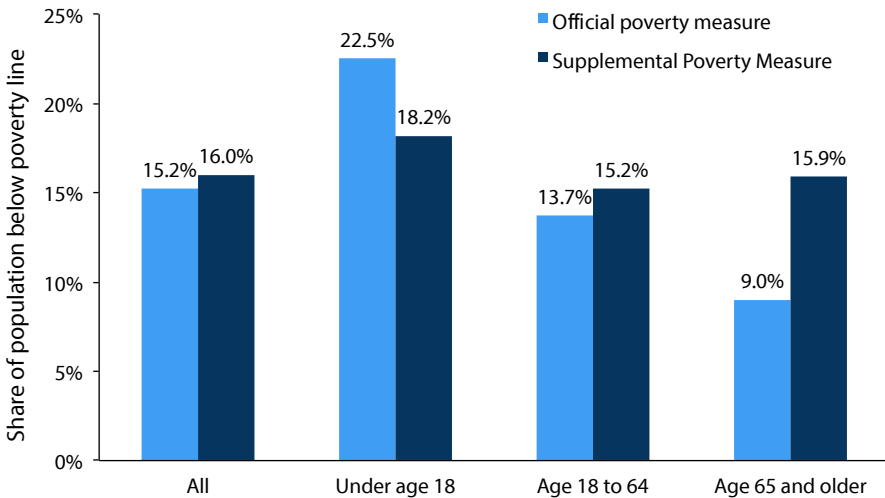
Note: Data in this figure differ from figures 7A and 7B because data in this figure include unrelated individuals under age 15.
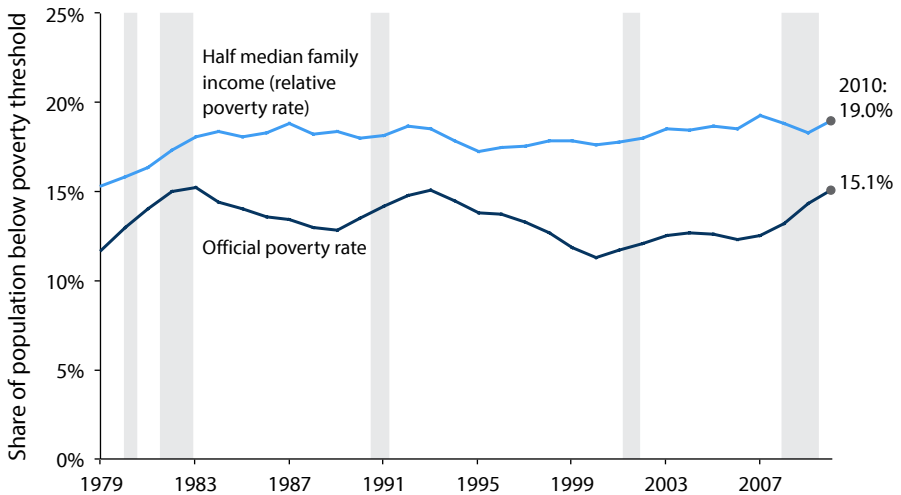
Source: Authors' analysis of Short (2011, Table 1)

Relative poverty

Another way to measure poverty tracks the poor while accounting for changes in prevailing income levels among the non-poor. Such measures are called "relative" because they usually set the poverty threshold as a share of median income, which moves each year and typically rises in nominal terms.

The utility of this measure, besides being the norm in international comparisons, is that it tells how the poor fare relative to middle-income families (using median income as a proxy for middle-income families). Since the official poverty line is adjusted only for inflation, any time median income grows in real terms—faster than inflation—the poor lose relative ground. **Figure 7I** plots official poverty and relative poverty—the share of persons with one-half of median income—from 1979 to 2010. To be consistent with international comparisons later in this chapter, income in this context includes noncash transfers such as food stamps and housing subsidies. Income is measured in terms of family income for persons in families and individual income otherwise. As the figure shows, the official rate is considerably more cyclical: It fell over the expansion of the 1980s, and fell again, more so, in the 1990s, from a peak of 15.1 percent in 1993 to 11.3 percent in 2000. At the same time, the relative poverty rate fell less than a percentage point, from 18.5 percent in 1993 to 17.7 percent in 2000.

Figure 7I **Official and relative poverty rate, 1979–2010**

Note: Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) *Historical Poverty Tables* (Table 2) and CPS-ASEC microdata

Relative poverty fell less because real median income rose in the 1990s (see Chapter 2), so the relative threshold of half the median was rising as well in real terms. Since, in relative terms, half median income grew at about the same rate as the median income, the poor remained about the same distance from the middle as before, while those poor by the official measure gained a great deal of ground in terms of reducing poverty.

Because the relative measure tracks economic distance between the poor and the middle class (in a way that absolute measures do not), it reveals the impact of changes in income inequality within the bottom half of the income distribution on poverty. The share of the population that is poor in relative terms hovered around 18 percent from the mid-1980s on, and was 19.0 percent in 2010. Thus, many more persons are poor in relative terms—their income is less than half the median—than in absolute terms. That such a significant share of the population remains relatively distant from the mainstream is an important dimension of the poverty problem.

The working poor

A large and growing share of income of poor households comes from wages earned from work. In 2007, about half of household income of those in the bottom fifth of the household income distribution came from wages. The discussion of Figure 7T later will explore more on this segment of the population, which, while not an exact fit with persons under the poverty line, represents another similar measure of relative deprivation.

Because wages are an important component of income for those at the bottom of the income distribution (other components are discussed later), it is important to examine the working poor. Who are they and what types of jobs do they have? For most of this section, the working poor are identified as those who earn "poverty-level wages," defined here as wages at or below the hourly wage that would give a family of four enough income to reach but not exceed the poverty threshold, given full-time, full-year work. In 2011, that wage was $11.06 per hour. Figures 4E and 4F in the wages chapter detail important trends in the share of workers earning poverty-level wages by gender and race and ethnicity; here we further explore these workers by examining their characteristics at a point in time (2011).

Poverty-level wages

This section compares the characteristics of workers earning poverty-level wages with the characteristics of those earning above poverty-level wages. In 2011, 28.0 percent of workers earned poverty-level wages (or $11.06 or less an hour), up from 23.1 percent in 2002 (from Figure 4E). The average wage among these poverty-wage workers was $8.66 an hour versus $25.85 for all other workers.

Figure 7J Demographic characteristics of poverty-level-wage workers vs. non-poverty-level-wage workers, 2011
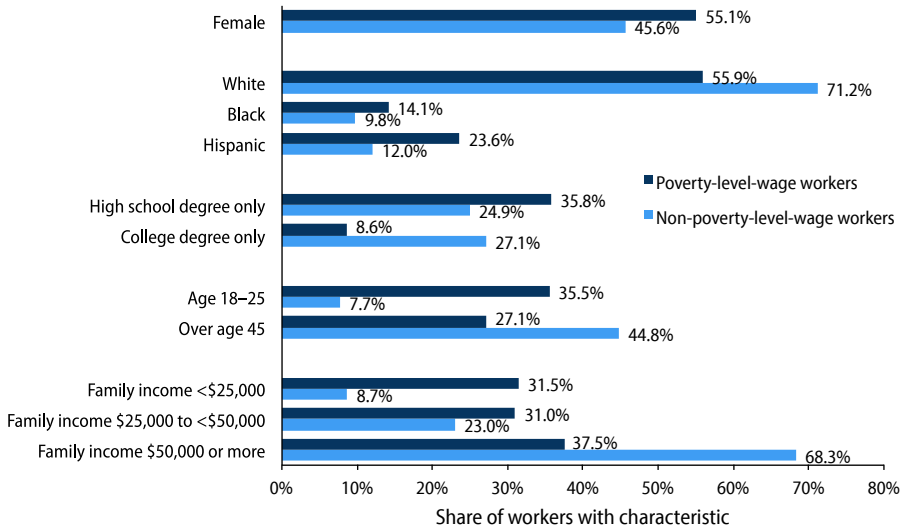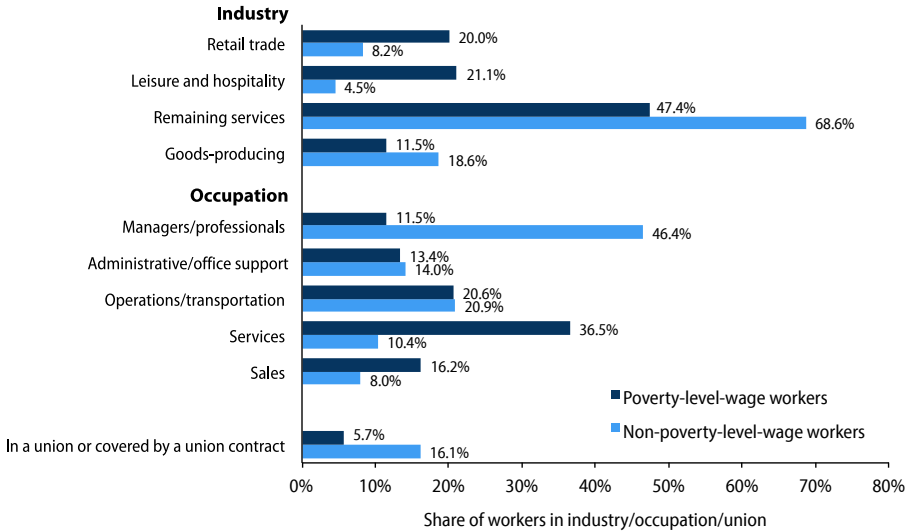

Note: Poverty-level-wage workers are defined as those earning at or below the wage a full-time, full-year worker would have to earn to give a family of four enough income to reach but not exceed the poverty threshold ($11.06 per hour in 2011).

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

Figure 7J compares the demographic characteristics of poverty-wage and non-poverty-wage workers. Comparing each set of bars reveals categories in which poverty-wage workers are overrepresented (or underrepresented). Poverty-wage workers are more likely to be female, black, Hispanic, and young. They are also more likely to have only a high school degree. In fact, non-poverty-wage workers are more than three times as likely to have a college degree than poverty-wage workers.

The last set of bars in Figure 7J illustrate in what types of families poverty-wage workers reside, defined here as lower-income families (with incomes less than $25,000), middle-income families (with incomes of $25,000–<$50,000), and higher-income families (with incomes of $50,000 or more). Some have argued that many poverty-wage workers live in higher-income families, for example as children living at home. But the truth is that while some poverty-wage workers—about 37.5 percent—live in higher income families, most live in low- and middle-income families. About one-third of poverty-wage workers live in lower-income families, compared with 8.7 percent of non-poverty-wage workers.

Figure 7K Industry, occupation, and union status of poverty-level-wage workers vs. non-poverty-level-wage workers, 2011

Note: Poverty-level-wage workers are defined as those earning at or below the hourly wage a full-time, full-year worker would have to earn to give a family of four enough income to reach but not exceed the poverty threshold ($11.06 per hour in 2011).

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

Figure 7K displays several work-related characteristics of poverty-wage workers in 2011. Poverty-wage workers are disproportionately found in retail and leisure/hospitality, and are less likely to work in goods-producing industries and other services (such as finance or professional services). Turning to occupations, poverty-wage workers are far more likely to work in services or sales and far less likely to be managers or professionals. They are also considerably less likely to be in a union or covered by a union contract.

Job quality

Poverty-wage workers' much lower rate of unionization is significant not only because nonunion wages are likely to be lower but also because nonunion workers are less likely to have the benefits that tend to come with higher paying or unionized jobs. **Figure 7L** compares two such benefits: health insurance and pension coverage. Non-poverty-wage workers are about three times more likely to have employer-sponsored health insurance and nearly four times more likely to have employer-sponsored pension coverage as poverty-wage workers. Furthermore, poverty-wage workers generally are also far less likely to have paid-leave benefits.

Figure 7L **Share of poverty-level-wage and non-poverty-level-wage workers with employer-sponsored health insurance and pension coverage, 2010**
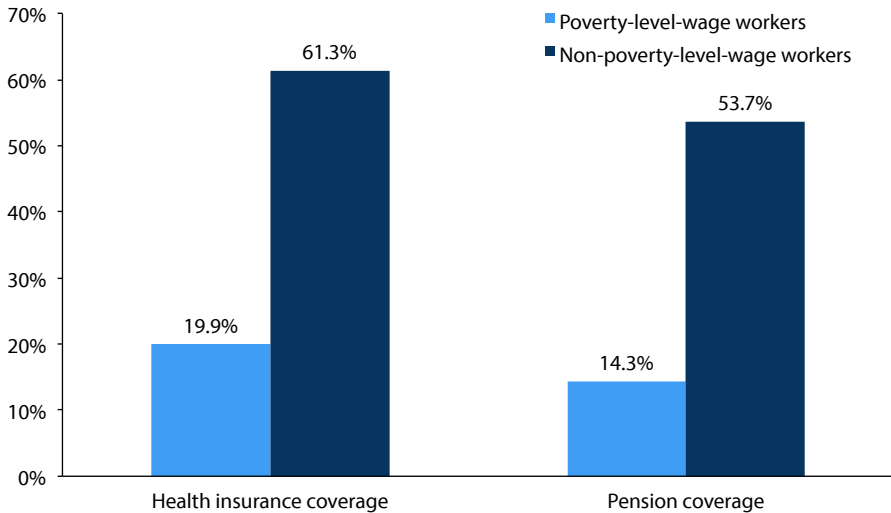
Note: Poverty-level-wage workers are defined as those earning at or below the hourly wage a full-time, full-year worker would have to earn to give a family of four enough income to reach but not exceed the poverty threshold ($10.73 per hour in 2010).

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata

As shown in Table 4.12, those in the bottom 10 percent of the wage distribution are only about one-third as likely to have paid sick days or paid family leave as workers overall.

Work hours

In this section, we switch gears to low-wage households (versus workers), which we define as households in the bottom fifth of the annual household earnings distribution (summing working members' wages). **Table 7.2**, which replicates a subset of information found in Table 2.17, separates annual earnings into hourly wages and annual hours, enabling us to determine how much of low-wage households' annual earnings growth between business cycle peak years 1979 and 2007 was driven by working more versus earning more per hour.

Annual earnings of the bottom fifth of working-age households rose by 12.3 percent between 1979 and 2007, as average overall earnings grew more than twice as fast at 27.7 percent. This represents a $1,911 growth in the bottom fifth's real annual earnings, about one-tenth the size of the average annual earnings growth of all working-age households ($19,045). Similarly, real hourly wages rose much

Table 7.2 Contribution of hours versus hourly wages to annual wage growth for working-age households, selected years, 1979–2007 (2011 dollars)

	1979	1989	1995	2000	2007	1995–2000	1979–2007
Real average annual wages							
All	$59,723	$65,858	$70,210	$78,883	$78,768	11.6%	27.7%
Bottom fifth	14,596	14,855	14,346	17,090	16,507	17.5	12.3
Annual hours worked							
All	3,092	3,286	3,317	3,378	3,314	1.8%	6.9%
Bottom fifth	1,716	1,884	1,837	1,977	1,880	7.4	9.2
Real average hourly wages							
All	$19.32	$20.04	$21.17	$23.35	$23.77	9.8%	20.8%
Bottom fifth	8.51	7.88	7.81	8.64	8.78	10.1	3.2
Contribution to annual wage growth							
Hours							
All	—	—	—	—	—	15.8%	25.0%
Bottom fifth	—	—	—	—	—	42.2	74.4
Hourly wages							
All	—	—	—	—	—	84.2%	75.0%
Bottom fifth	—	—	—	—	—	57.8	25.6

Note: The "bottom fifth" refers to the working-age households in the bottom fifth of the income distribution, as measured by money income. Percentage changes are approximated by taking the difference of natural logs of wages and hours.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata

faster overall than for the bottom fifth between 1979 and 2007; 20.8 percent for all working-age households compared with 3.2 percent for the bottom fifth of working-age households. This translates into an increase in average hourly pay of $4.45 for all working-age households compared with $0.27 for those at the bottom.

Over the same period, annual hours of the bottom fifth rose by 9.2 percent, which means that about three-fourths—74.4 percent—of the rise in annual earnings of low-wage households was driven by increased work time. In stark contrast, only one-fourth (25.0 percent) of the growth in average working-age household earnings is derived from increased work hours; average annual earnings growth was driven primarily by increases in hourly wages, whereas annual earnings growth at the bottom was driven primarily by increases in annual hours worked.

One notable exception to this pattern is in the data for 1995 to 2000, which, as discussed earlier in the Wages chapter (Chapter 4), show how favorable the

tight labor market of the late 1990s was to households at the bottom of the wage scale; hourly wages at the bottom grew 10.1 percent. Both annual earnings and hourly wages grew faster for the bottom fifth than overall. If the growth of the late 1990s had not happened, overall average hourly wage growth from 1979 to 2007 still would have been positive, but real wages of the bottom fifth of working-age households would have fallen. The following section explores factors that affect low-wage growth and subsequent changes to U.S. poverty rates.

Determinants of low incomes

Addressing the problem of U.S. poverty, however defined, requires exploring its many causes. To help explain why the poverty rate rises and falls, this section examines poverty alongside macroeconomic factors such as economic growth, unemployment, inequality, and wages; and then examines others factors such as education, family structure, and race.

The macro economy and poverty

Our examination of the relationship between macroeconomic growth and poverty begins with **Figure 7M**, which compares the actual poverty rate with a simulated poverty rate based on a model of the statistical relationship between

Figure 7M Poverty rate, actual and simulated, 1959–2010
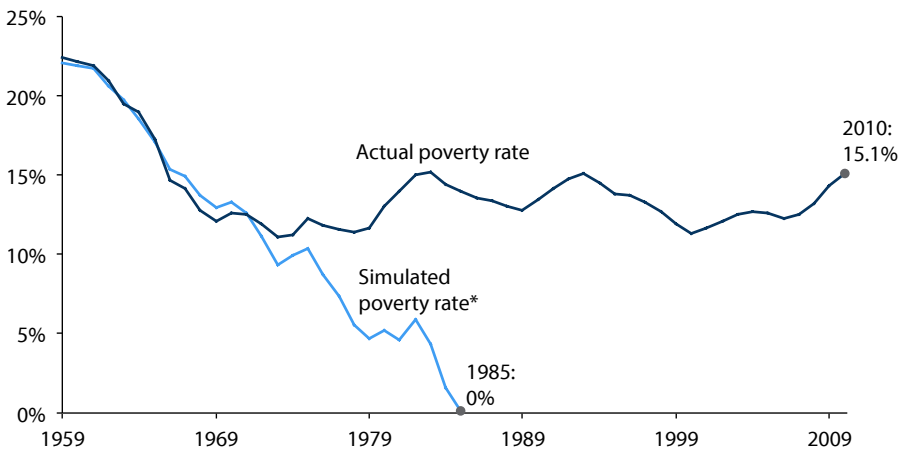
* Poverty rate simulated by a model based on the relationship between per capita GDP growth and the official poverty rate between 1959 and 1973.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Tables 2 and 4) and Bureau of Economic Analysis National Income and Product Accounts (Table 7.1). Analysis using Danziger and Gottschalk (1995)

growth in per capita gross domestic product (GDP) and poverty between 1959 and 1973. The model forecasts poverty quite accurately through the mid-1970s, when economic growth was broadly shared. Since then, the actual poverty rate has fluctuated cyclically within 4 percentage points above its trough in 1973. If the relationship between per capita GDP growth and poverty that prevailed from 1959 to 1973 (wherein as the country, *on average*, got richer, poverty dropped) had held, the poverty rate would have fallen to zero in the mid-1980s. The model's general results hold true, even under various alternative specifications. For instance, if we remove the elderly from the equation (not shown), non-elderly poverty still falls to zero in the 1980s, which tells us that the results shown were not driven by the increase in Social Security benefits over that period. And, when we rerun the model to control for the share of households headed by single mothers (not shown), we can demonstrate that family type did not drive these results.

Economic growth and poverty reduction clearly became decoupled in the mid-1970s, just as income inequality was taking off. As income inequality grows, poverty rates become less responsive to overall growth, because too little of that growth reaches the lower end of the income scale. Therefore, economic growth is a necessary factor in, but not *sufficient* for, broadly shared prosperity.

Faster productivity growth, which creates more income per hour worked, provides the potential for significant poverty reduction, but only if that income reaches the lower end of the income scale. An underappreciated way to ensure that income reaches those at the bottom is to sustain genuinely full employment by targeting the absolutely lowest unemployment rate consistent with non-accelerating inflation. **Figure 7N** compares the relationship between changes in productivity, unemployment, low-end wages, and poverty over the last three full business cycles and from 2007 to 2010.

The 1990s were characterized by strong productivity growth and falling unemployment. Productivity grew at a 2.1 percent annual rate during this period while the unemployment rate fell 1.3 percentage points from 1989 to 2000. This tightening labor market, particularly in the latter half of the decade, led to growth in wages at the low end (wages at the 20th percentile of the wage distribution grew 1.0 percent annually) and a decrease in the poverty rate (by 1.5 percentage points between 1989 and 2000). Full employment is critical for at least three reasons. First, the demand for labor in an economy at full-employment provides people with the jobs and work hours they need to make ends meet. Second, tight labor markets mean employers often must bid up wages and other measures of job quality to get and keep the workers they need. Third, full employment helps generate a more equitable distribution of growth because tighter labor markets help workers at the bottom of the wage scale more than other workers (as covered later in our discussion of Figure 7O).

Figure 7N Change in productivity, 20th-percentile wages, unemployment, and poverty, selected periods, 1979–2010
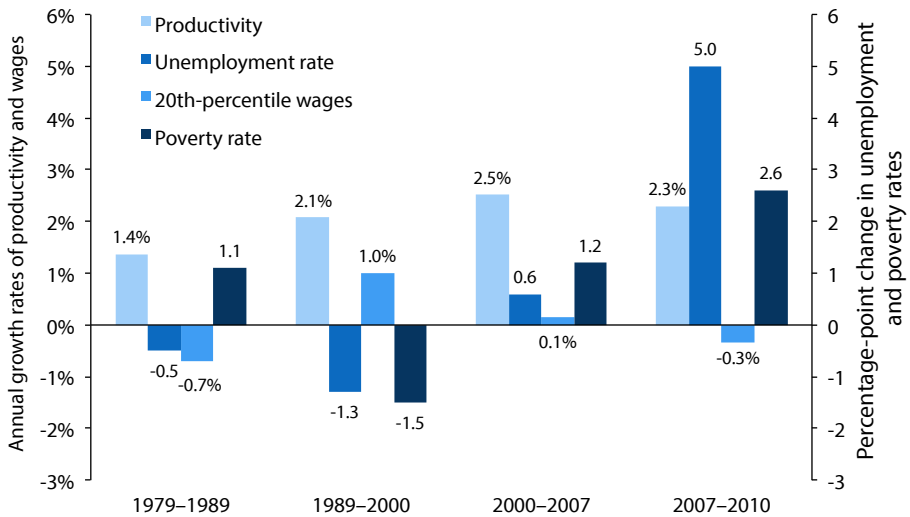

Source: Authors' analysis of Bureau of Labor Statistics Major Sector Productivity and Costs data, Current Population Survey Outgoing Rotations Group microdata, CPS public data series, and CPS Annual Social and Economic Supplement *Historical Poverty Tables* (Table 2)

Unlike the 1990s expansion, the business cycles of the 1980s and 2000s did not translate into reductions in poverty. In the 1980s, annual productivity growth was lower than in other periods and unemployment fell only slightly. Wages at the 20th percentile fell and correspondingly poverty increased. In the 2000–2007 period, productivity grew more than in the prior two periods (by 2.5 percent annually) but unemployment also increased (up 0.6 percentage points across the period), and poverty grew (up 1.2 percentage points). During the 2007–2010 period, annual productivity growth remained relatively strong, but the unemployment rate skyrocketed, increasing by 5 percentage points (4.4 percentage points higher than the increase of the prior period). While this period does not represent a full business cycle, peak to peak, it still illustrates that failing labor markets are associated with falling wages at the bottom and sharply increasing poverty rates.

Falling unemployment, combined with increasing economic growth or rising productivity, is key to increasing wages at the bottom and reducing poverty. The critical role of full employment is particularly germane in the low-wage labor market. Unsurprisingly, there is a close relationship between low-end wage growth and poverty because wages are the largest component of incomes at the low end. However, wages of this group are also the most sensitive to a strong (or weak) labor market. **Figure 7O** makes this point by showing the impact on

Figure 7O Increase in wages from a 1 percentage-point decline in the unemployment rate, by gender
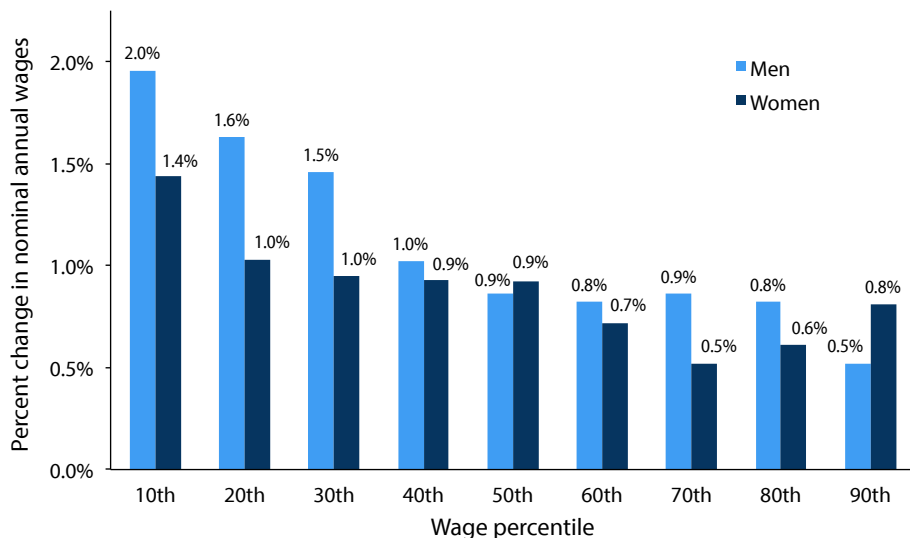
Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata for 1979 to 2007. Analysis based on Katz and Krueger (1999)

nominal annual wage growth of a 1 percentage-point decline in the unemployment rate (based on data for 1979 to 2007). Note the steep downward "staircase," as the percent change in wages falls for nearly every consecutive wage percentile up the scale, particularly for men; clearly men at the lower end get the biggest wage boost from tighter job markets. For instance, for men at the 20th percentile, a 1-percentage-point decline in the unemployment rate is associated with a 1.6 percent increase in wages. According to these results, wage gains from lower unemployment are roughly twice as high for the lowest-wage male workers as they are for middle- and high-wage workers.

The impact of economic, demographic, and education changes on poverty rates

The previous analyses explored several important macroeconomic factors that play an important role in poverty reduction by boosting wages, and therefore incomes, at the bottom. **Table 7.3** extends our analyses to a different, larger set of factors commonly associated with changes in poverty over the past three decades: changes in the U.S. population's racial composition, education levels, and family structure (demographic factors), and overall income growth and income

Table 7.3 Impact of changes in U.S. economic and demographic composition
on the poverty rate, selected periods, 1979–2010

	1979–1989	1989–2000	2000–2007	1979–2007	2007–2010
Actual change in poverty rate	1.2	-1.5	1.2	0.8	2.6
Change due to demographic shifts	-0.2	-0.6	-0.1	-0.8	0.3
Racial composition	0.4	0.4	0.1	0.9	0.0
Educational composition	-1.2	-1.1	-0.4	-2.7	0.2
Family structure	0.7	0.4	0.3	1.4	0.2
Change due to economic shifts	1.4	-0.9	1.2	1.7	2.3
Income change	-1.8	-2.1	0.1	-3.8	0.4
Income inequality	3.2	1.2	1.1	5.5	1.9

Note: Data may not sum due to rounding and the effect of the interactions between demographic
characteristics, explained in the table note.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata.
Analysis based on Danziger and Gottschalk (1995)

inequality (economic factors). The first row shows the percentage-point change in
the poverty rate across each subperiod shown, and the subsequent rows show how
much (in percentage points) each factor contributed to that change. For example,
the "education" row shows the percentage-point impact on the poverty rate made
by changes in the educational composition of the U.S. population (in this case,
an increasing share of individuals with higher levels of education translates into
lower poverty). The "family structure" row shows how changes in the composition
of U.S. families (e.g., more single-mother households) affected the poverty rate.
(Table note 7.3 at the end of this chapter explains these calculations in detail.)

During the most recent full business cycle, 2000–2007, rising inequality of
U.S. incomes (family income for people in families and individual income other-
wise) contributed more than any other factor shown to the 1.2 percentage-point
increase in the U.S. poverty rate. The minimal impact of the other factors gener-
ally canceled one another out. In other words, controlling for changes in racial,
educational, and family structure composition, had income growth been more
broadly shared over this period, poverty would have hardly increased from its
most recent low in 2000. From 2007 to 2010, inequality continued to play the
most significant role, though falling incomes also increased the poverty rate.

In the roughly three decades (1979–2007) leading up to the most recent reces-
sion, educational upgrading and overall income growth were the two biggest pov-
erty-reducing factors, while income inequality was the largest poverty-increasing

factor. Relative to these other factors, the racial composition of the U.S. popula-
tion over this period (the growth of nonwhite populations with higher likeli-
hoods of poverty) and changes in family structure (the growth of single mother
households) have contributed much less to poverty, particularly in the last full
business cycle, when racial composition contributed 0.1 percentage points and
family structure 0.3 percentage points.

Up until the 2000s, when overall income growth was weak (or negative), ris-
ing incomes reduced poverty by about 2 percentage points (1.8 in the 1979–1989
cycle and 2.1 across 1989–2000). This finding aligns with Figure 7M, which
established that, simply based on growth of real per capita GDP, poverty would
have ended in the 1980s. That is, without inequality siphoning growth toward the
top, a growing economy—with growth broadly shared—would have put a serious
dent in poverty.

Figure 7P gives closer attention to the family structure component, which
is often cited by those who discount economic explanations for poverty. Rather
than inequality or the absence of full employment preventing growth from lower-
ing poverty, they argue that changes in family structure, such as the increase in
families headed by single mothers, are driving the higher poverty rates. Accord-
ing to this line of thinking, more jobs, stronger income growth, and less income
inequality are secondary to marriage in decreasing poverty.

Figure 7P Impact of changes in family structure on the poverty rate, selected
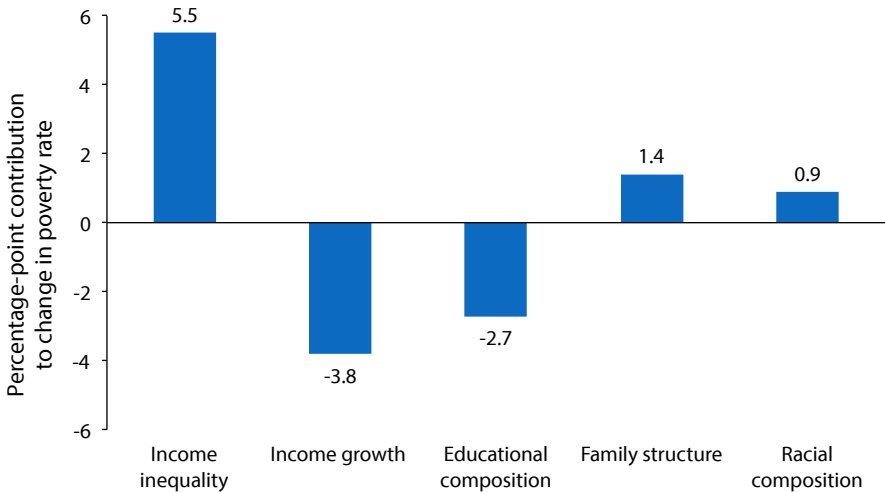periods, 1979–2010
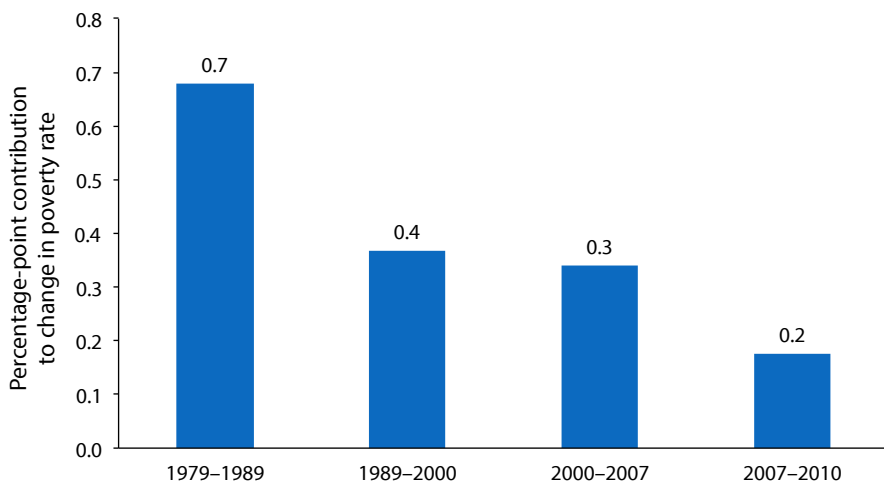
Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata.
Analysis based on Danziger and Gottschalk (1995)

The rationale for these arguments is that female-headed households with children have much higher poverty rates (as shown in Figure 7E) and that their formation contributed 1.4 percentage points to the increase in poverty from 1979 to 2007 (Table 7.3). However, Figure 7P shows a sharp fall in the impact of this factor. In each succeeding business cycle (including during the Great Recession), changes in the composition of U.S. families (changes dominated by increases in single-mother households) explained less of the increase in the poverty rate, with the effect largely fading out in the Great Recession and its aftermath, when the shift to more economically vulnerable families contributed only 0.2 percentage points to the growth in poverty rates.

Figure 7Q plots the impact of the economic and demographic factors shown in Table 7.3 for the roughly three-decade period prior to the Great Recession (three full business cycles). The impacts of income inequality and income growth were quantitatively large, but in opposite directions. Had income growth been equally distributed, which in this analysis means that all families' incomes would have grown at the pace of the average, the poverty rate would have been 5.5 points lower, essentially, 44 percent lower than what it was.

Figure 7Q Impact of changes in U.S. economic and demographic composition on the poverty rate, 1979–2007

Note: The bars show by how much the poverty rate increased or decreased due to rising income inequality, income growth across the income distribution, and changes in the education levels, family structures, and racial composition of the U.S. population.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata. Analysis based on Danziger and Gottschalk (1995)

Educational upgrading is often overlooked in these analyses. The low-income population in the United States has become considerably more highly educated over time, even with the influx of less-educated immigrants. More education tends to raise families' incomes; the third bar in the figure reveals that increased educational attainment (a dominant part of the change in the educational composition of the population) has been a potent force in lowering poverty rates.

In sum, our diagnosis of poverty's determinants reveals that the unequal distribution of income has, to a substantial degree, prevented poverty rates from falling in periods of strong economic growth. In the 2000s in particular, the workforce was highly productive, yet poverty increased. This rise had little to do with family formation. It had a great deal to do with rising inequality.

Resources for low-income Americans

While one of the most effective antipoverty programs is a U.S. economy that generates good jobs in a very tight labor market, government transfer programs can provide a valuable safety net. This section explores some of these antipoverty programs.

Figure 7R Per capita Social Security expenditures and the elderly poverty rate, 1959–2010
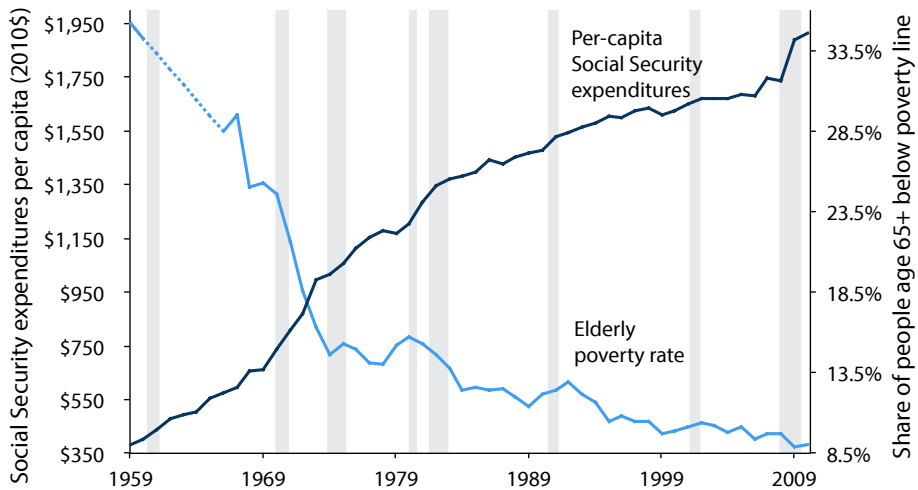

Note: The dotted line denotes a linear extrapolation between 1959 and 1966 (no formal data exist for 1960 to 1965). Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables* (Tables 2 and 3) and Social Security Administration trust fund data

As Figure 7B showed, poverty declined significantly among all age groups from 1959 through the early 1970s, and the largest and most continuous declines occurred among the elderly. **Figure 7R** shows that declines in elderly poverty are directly associated with sharp increases in per capita Social Security expenditures—evidence that direct government transfers keep many people from falling below the poverty line. Further evidence: The Census reported that 13.8 million elderly people would have been in poverty in 2010 had Social Security been unavailable in 2010 (Renwick 2011). That would have meant an elderly poverty rate of about 44 percent, compared with the actual poverty rate of 9.0 percent. But, Social Security lifts not only the elderly out of poverty. Without Social Security benefits to surviving family members or disabled individuals, the non-elderly poverty rate would have been 18.4 percent instead of 16.0 percent in 2010.

Other safety net programs help working families make ends meet and rise above poverty. Both the federal and state EITCs increase families' resources, while food stamps, public health insurance, child care subsidies, and housing vouchers reduce their annual expenses. **Figure 7S** illustrates how a set of targeted government programs affected overall poverty in 2010 by showing what the poverty

Figure 7S **Poverty rate absent targeted government programs, by age group, 2010**
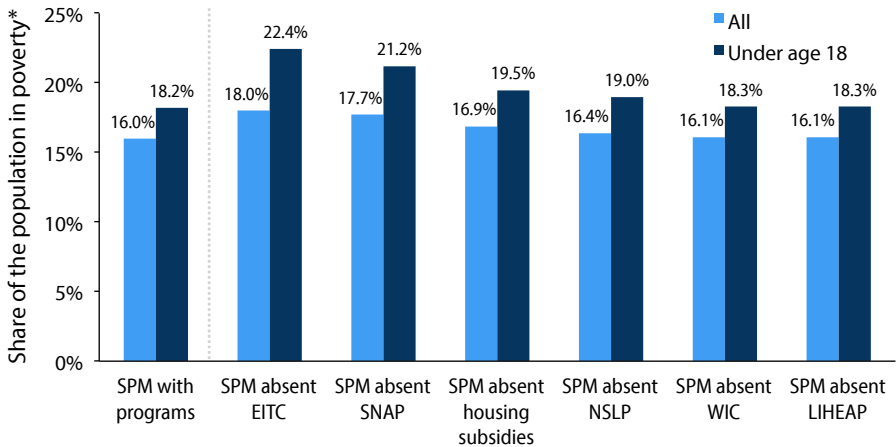
* As measured by the Supplemental Poverty Measure (SPM).
Note: The difference in the poverty rates between the first set of bars and each of the remaining sets is the extent to which each program reduced poverty. EITC is the Earned Income Tax Credit; SNAP is the Supplemental Nutrition Assistance Program; NSLP is the National School Lunch Program; WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children; and LIHEAP is the Low Income Home Energy Assistance Program.

Source: Authors' analysis of Short (2011, Table 3a)

rate would have been absent each program, for the entire population and for children. The difference between the first set of bars, which show the shares of the overall and under-age-18 populations in poverty under the Supplemental Poverty Measure, and each subsequent set of bars is the extent to which each program reduced poverty. It is clear that many programs targeted to the poor disproportionately help children. The EITC was the largest poverty reducer for those under age 18, followed by the Supplemental Nutrition Assistance Program (SNAP, commonly referred to as food stamps).

While some components of this social safety net are available regardless of work status (e.g., SNAP), others are dependent on wage income (e.g., the EITC). In a strong labor market with low unemployment, work-dependent government supports lift many working poor out of poverty; however, a weak job market greatly curtails the effectiveness of these supports. The strength of other safety net programs, such as public health insurance, is also at risk when the economy is weak, as these programs depend on state financing at the same time as state budgets are stretched by the poor economy. Thus, unemployment insurance is vital to countering increases in poverty in bad economic times.

Using the methodology used to calculate the poverty prevention capacity of Social Security, we estimate that, absent unemployment insurance, the official poverty rate in 2010 would have been 23.2 percent for children (instead of 22.0 percent) and 14.9 percent for non-elderly adults (instead of 13.7 percent). Thus, unemployment insurance kept 900,000 children and 2.3 million non-elderly adults out of poverty in 2010 even though one or more workers in these vulnerable households were laid off.

In short, poverty can be greatly reduced by providing vulnerable households with direct subsidies such as Social Security, unemployment insurance, and the EITC and in-kind transfers such as food stamps and public health insurance, as well as by enacting policies that increase the minimum wage and workers' bargaining power (e.g., macroeconomic policies that target full employment, thereby lowering unemployment and securing wage gains across the income distribution). Used in combination, these policy levers can lower poverty rates as the United States pulls out of the downturn from the Great Recession.

Unfortunately, the safety net in the United States has weakened over time, and workers at the bottom rely more heavily on wages and a strong economy to make ends meet. **Figure 7T** displays the major sources of income for households in the bottom fifth of the income distribution from 1979 to 2007. The figure uses the household "comprehensive income" measure from the Congressional Budget Office, which includes "in-kind income" (i.e., employer-paid health insurance premiums, food stamps, school meals, housing assistance, energy assistance, and the fungible value (estimated fair value) of Medicare and Medicaid), and "cash transfers" (e.g., Social Security, unemployment insurance, and welfare programs such as Temporary Assistance for Needy Families (TANF)).

Figure 7T Share of bottom-fifth household income accounted for by wages, cash transfers, and in-kind income, 1979–2007
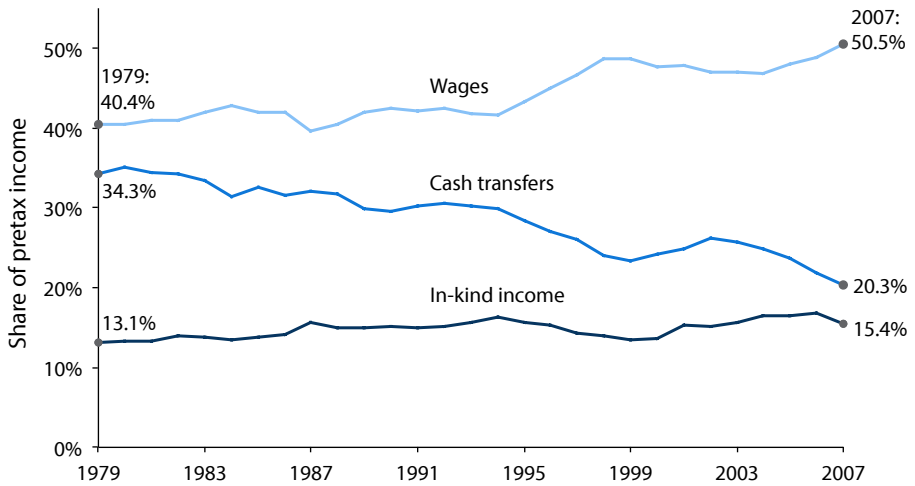
Note: Wages, cash transfers, and in-kind income comprise, on average, 88 percent of all pretax income for the bottom fifth. The other 12 percent is made up of capital gains, proprietors' income, other business income, interest and dividends, pensions, imputed taxes, and other income.

Source: Authors' analysis of Congressional Budget Office (2010a)

The share of comprehensive pretax income accounted for by wages rose from 40.4 percent in 1979 to 50.5 percent in 2007, an increase of 10.1 percentage points. Recall that for the bottom fifth of working-age households, increases in household annual wages stemmed primarily from increased annual hours worked rather than from increased hourly wages (Table 7.2). At the same time that wages became a more important source of household income for the bottom fifth, safety net programs' contributions to income held level or fell. From 1979 to 2007, the share of the bottom fifth's income accounted for by cash transfers fell 14.0 percentage points (from 34.3 percent to 20.3 percent), while the share accounted for by in-kind income rose a modest 2.3 percentage points, from 13.1 percent to 15.4 percent. Together, cash transfers and in-kind income dropped from 47.4 percent to 35.7 percent of income from 1979 to 2007.

International comparisons

In considering what can be done to alleviate poverty in the United States, it is useful to look at the experience of other developed countries. The first part of this section provides a general comparison of poverty and the earnings distribution in

the United States and "peer" countries, largely countries within the OECD that have roughly similar GDP per hour worked as the United States. After comparing the bottom of the earnings distribution and poverty levels, we examine the extent to which resources go to the bottom, focusing specifically on the tax-and-transfer system that redistributes market income and provides a safety net to keep people out of poverty, or helps those who fall into poverty due to unexpected job losses or other events get back on their feet.

Poverty and the earnings distribution

One particular point of interest in international comparisons, shown in **Figure 7U,** is the ratio of earnings (wages) at the 10th percentile of the earnings distribution to earnings of the median worker. This measures how workers at the bottom fare in relation to the typical worker. A lower number implies more inequality. As the figure shows, earnings at the 10th percentile in the United States are less than half (47.4 percent) of those of the typical worker. This is the lowest share in the figure and is far below the (unweighted) peer average of 62.0 percent.

Figure 7U showed that earners at the 10th percentile in the United States are further from the U.S. median than 10th percentile earners in peer countries are

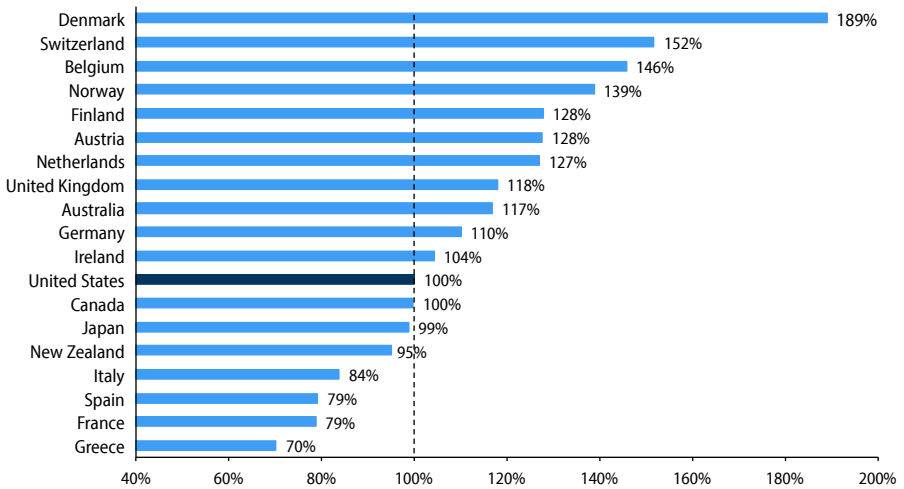**Figure 7U** **Earnings at the 10th percentile as a share of median worker earnings in selected OECD countries, late 2000s**
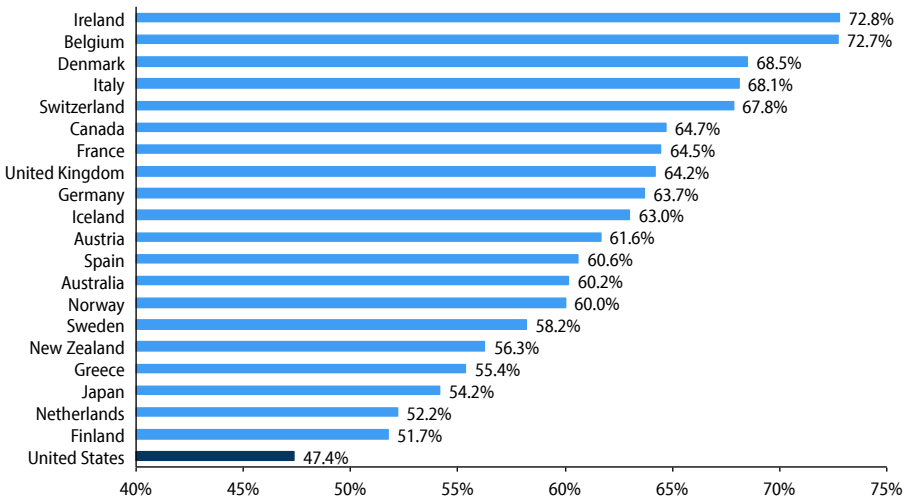
Note: Earnings is generally defined as gross earnings (wages prior to tax deductions or adjustments) for full-time, full-year workers.

Source: Authors' analysis of Organisation for Economic Co-operation and Development's *Distribution of Gross Earnings* metadata (data group labelled "late 2000s")

Figure 7V Earnings at the 10th percentile in selected OECD countries relative to the United States, late 2000s

from their own countries' respective medians. However, median earnings vary across countries. Thus, the data in Figure 7U do not directly tell us how well-off (in terms of earnings) workers at the 10th percentile in other countries are compared with U.S. workers at the 10th percentile.

Figure 7V directly compares the level of earnings (a measure of livings standards) of low-earning workers in the United States with the living standards of low-earning workers in peer countries. The figure is scaled such that earnings at the 10th percentile in the United States equal 100 percent, making it easy to identify countries with higher relative earnings by their longer bars.

Despite the relatively high earnings at the top of the U.S. income scale (as illustrated in Chapter 2), inequality in the United States is so severe that low-earning U.S. workers are actually worse off than low-earning workers in all but seven peer countries. As shown in the figure, the United States ranks 12th out of the 19 peer countries shown.

Turning to an international comparison of poverty rates, we examine the share of the population living below half the median household income (similar to the relative measure of poverty from Figure 7I) in the United States and select OECD countries (**Figure 7W**). As with the previous two figures, this analysis draws on the OECD database.

Figure 7W **Relative poverty rate in the United States and selected OECD countries, late 2000s**
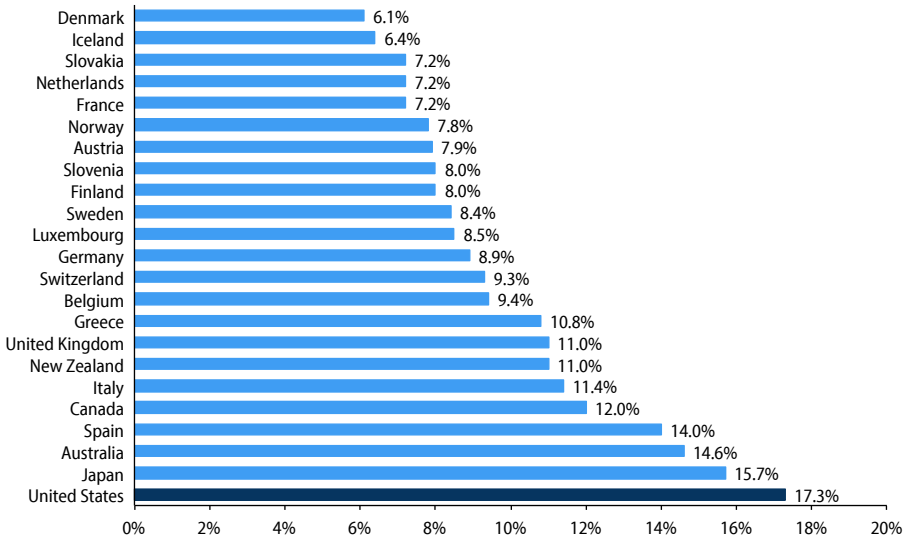
Note: The relative poverty rate is defined here as the share of individuals living in households with income below half of household-size-adjusted median income. Poverty rates are based on income after taxes and transfers.

Source: Authors' analysis of Organisation for Economic Co-operation and Development *Stat Extracts* (data group labelled "late 2000s")

According to the figure, in the late 2000s, 17.3 percent of the U.S. population lived in poverty—the highest relative poverty rate among OECD peers. The U.S. relative poverty rate was nearly three times higher than that of Denmark, which had the lowest rate (6.1 percent), and about 1.8 times higher than the (unweighted) peer country average of 9.6 percent.

While the overall relative poverty rate in the United States is higher than that of peer countries, the extent of child poverty is even more severe, as shown in **Figure 7X**. In 2009, the United States had the highest rate of child poverty, at 23.1 percent, meaning that more than one in five children in the United States lived in poverty (as measured by the share of children living in households with household income below half of median household income). This rate was almost five times higher than that of Iceland, which had the lowest rate, at 4.7 percent, and over two times higher than the (unweighted) peer-country average rate of 9.8 percent.

Another useful way to look at the extent of child poverty in the United States relative to other countries is to examine the child poverty gap, the distance between the poverty line (defined here as half of median household income) and

Figure 7X Child poverty rate in selected developed countries, 2009
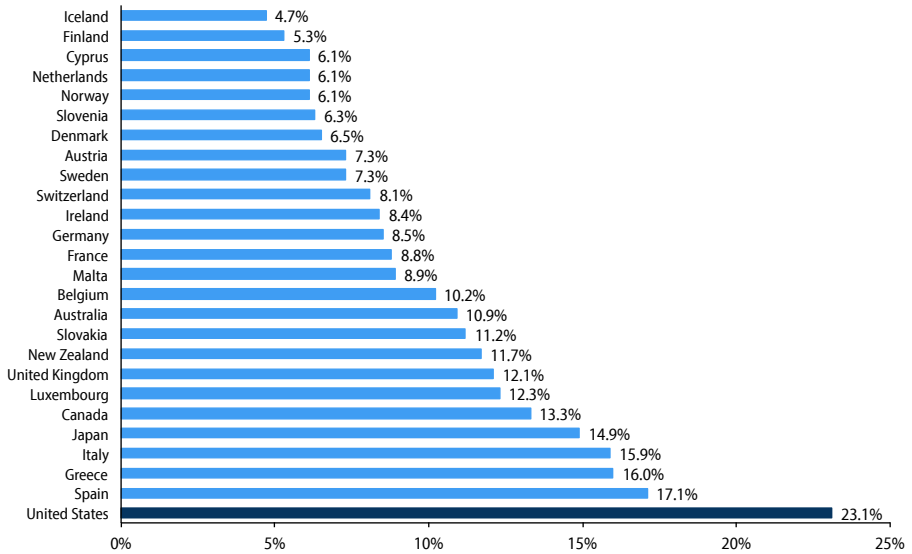
Note: The child poverty rate is the share of children living in households with income below half of household-size-adjusted median income.

Source: Adamson (2012, Figure 1b)

Figure 7Y Child poverty gap in selected developed countries, 2009
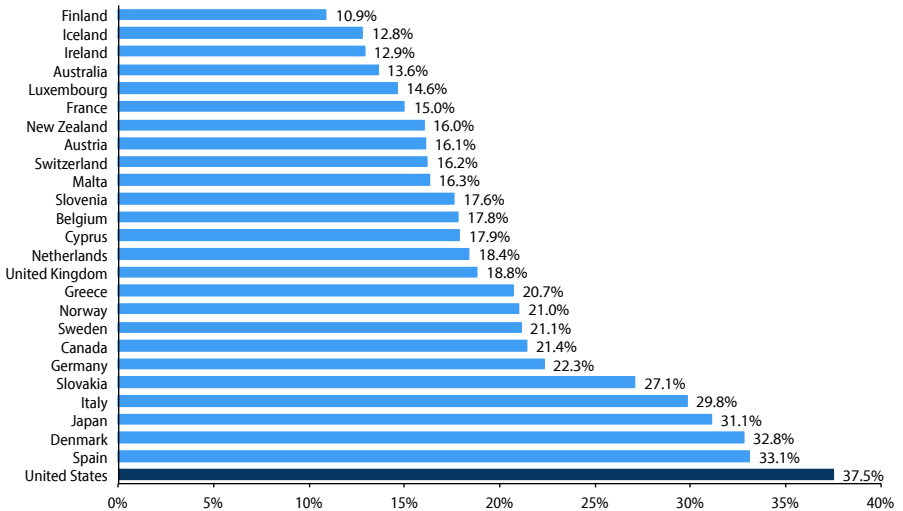
Note: The child poverty gap is the gap between the poverty line and the median income of children below the poverty line, taken as a share of the poverty line. The poverty line is defined as half of household-size-adjusted median income.

Source: Adamson (2012, Figure 7)

the median household income of children below the poverty line, expressed as a percentage of the poverty line. A smaller value means that the median household income of children below the poverty line is relatively close to the poverty line, while a larger number means the median household income of these children is further below the poverty line, i.e., that they are relatively more poor. **Figure 7Y** shows that the child poverty gap in the United States is 37.5 percent, the highest among peer countries. Therefore, not only is child poverty greater in the United States (Figure 7X), but children living in poverty in the United States also face higher relative deprivation than impoverished children in other developed countries. To some extent, this mimics the high rate of deep poverty in the United States shown in Figure 7G.
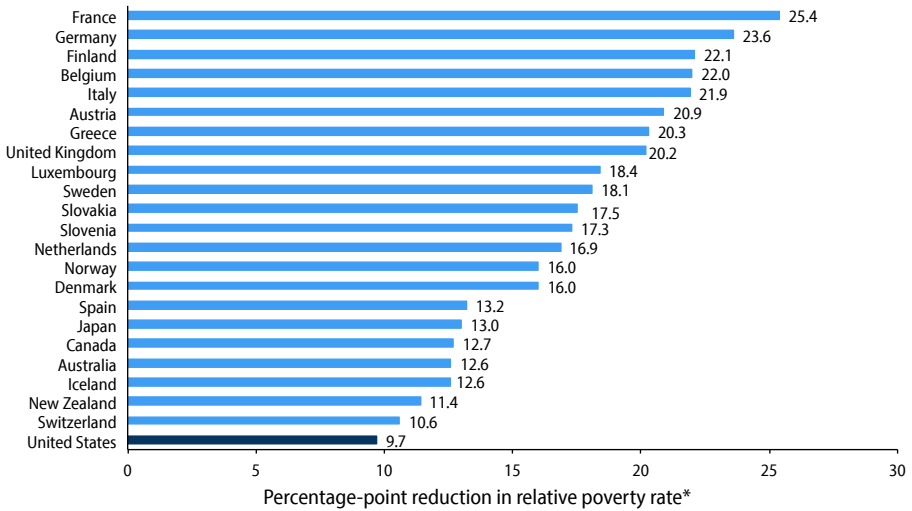
Resource allocation

To show how much taxes and transfer income affect poverty rates, we can compare poverty rates based on income calculations that include taxes and government transfers (Figure 7W) with rates based on income calculations that exclude them ("pretax and pre-transfer" poverty rates). While differences in the latter can be attributed to differences in market outcomes (such as the domestic economy but also a country's minimum wage, level of unionization, and other labor market institutions), the former reflects both market outcomes and variations in the extent of tax-and-transfer programs for low-income households. Differences between the two poverty rates are solely due to the government safety net.

Figure 7Z plots the differences between pre– and post–tax-and-transfer poverty rates in the United States and peer countries. (As with Figures 7I and 7W, the measure here is the relative poverty rate, the share of the population below half of median household income). For example, the pretax, pretransfer poverty rate in the United States in the late 2000s was 27.0 percent while the post-tax, post-transfer rate was 17.3 percent. The difference, 9.7 percentage points, is how much the U.S. tax-and-transfer system reduced the poverty rate. Among peer countries, the United States' tax-and-transfer system does the least to reduce the poverty rate. In contrast, tax-and-transfer programs reduced the poverty rate in France by 25.4 percentage points (from 32.6 percent to 7.2 percent after taxes and transfers). France's redistributive programs lower poverty by about 2.5 times as much as those of the United States. The (unweighted) average effect of peer countries' tax-and-transfer programs is a poverty-rate reduction of 17.4 percentage points—an effect nearly two times greater than that produced by tax-and-transfer programs in the United States.

Figure 7Z shows the effect of taxes and transfers on poverty rates, but does not show levels of social spending (for example, government expenditures on Medicare and Social Security in the United States). **Figure 7AA** shows total social expenditures as a share of GDP for the United States and select OECD countries

Figure 7Z Extent to which taxes and transfer programs reduce the relative poverty rate, selected OECD countries, late 2000s

Country	Value
France	25.4
Germany	23.6
Finland	22.1
Belgium	22.0
Italy	21.9
Austria	20.9
Greece	20.3
United Kingdom	20.2
Luxembourg	18.4
Sweden	18.1
Slovakia	17.5
Slovenia	17.3
Netherlands	16.9
Norway	16.0
Denmark	16.0
Spain	13.2
Japan	13.0
Canada	12.7
Australia	12.6
Iceland	12.6
New Zealand	11.4
Switzerland	10.6
United States	9.7

Percentage-point reduction in relative poverty rate*

Note: This figure plots the differences between each country's pre– and post–tax-and-transfer relative poverty rate, where relative poverty is the share of individuals with income below half of household-size-adjusted median income.

Source: Authors' analysis of Organisation for Economic Co-operation and Development *Stat Extracts* (data group labelled "late 2000s")

plotted against their post-tax, post-transfer poverty rates (from Figure 7W), providing a clear picture of the relationship between social spending and poverty. The United States stands out as the country with the highest poverty rate and one of the lowest levels of social expenditures—16.2 percent of GDP, well below the vast majority of peer countries, which average 21.3 percent (unweighted). The figure suggests that relatively low social expenditures are at least partially implicated in the high U.S. poverty rate.

Together, Figures 7Z and 7AA demonstrate that peer countries are much more likely than the United States to step in where markets and labor policy fail in order to lift their most disadvantaged citizens out of poverty.

Figure 7AA Social expenditure and relative poverty rates in selected OECD countries, late 2000s
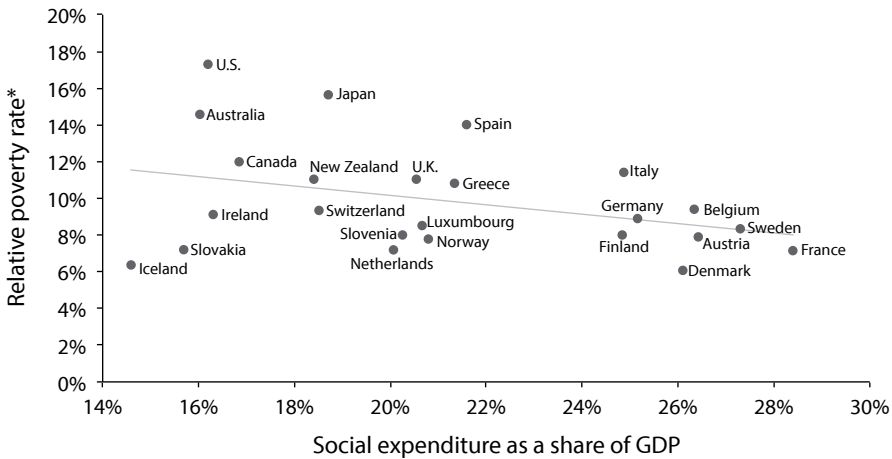
* The relative poverty rate is the share of individuals with income below half of household-size-adjusted median income. Poverty rates are based on income after taxes and transfers.

Note: Social expenditure is government expenditure on social programs, such as Social Security and Medicare in the United States. The equation for the trend line is y = -0.2559x + 0.1528 and the R^2 = 0.1266.

Source: Authors' analysis of Organisation for Economic Co-operation and Development *Stat Extracts* (data group labelled "late 2000s")

Conclusion

High and rising rates of poverty in the United States are yet another consequence of growing income inequality over the last three-and-a-half decades. Strong economic growth is no longer sufficient to reduce poverty. In periods of prosperity, economic gains have not been broadly shared, and least of all among those at the very bottom. In hard times, as in the Great Recession and its aftermath, an increasing number of families are falling into poverty, and, in many cases, deep poverty.

Historically, poverty has been greatly reduced by providing vulnerable households with direct subsidies such as Social Security and the EITC and in-kind transfers such as food stamps and public health insurance. Unfortunately, the safety net in the United States has weakened, and workers at the bottom rely more heavily on wages and a strong economy to make ends meet. A robust economy— with low unemployment—coupled with strong labor market institutions (e.g. a higher minimum wage, increased unionization) can help secure wage gains across the income distribution. Used in combination, a strong safety net and full employment policies can lower poverty rates.

Table and figure notes

Tables

Table 7.1. Comparison of poverty measures. Table is adapted from Short (2011), "Resource Estimates" table.

Table 7.2. Contribution of hours versus hourly wages to annual wage growth for working-age households, selected years, 1979–2007. See note to Table 2.17.

Table 7.3. Impact of changes in U.S. economic and demographic composition on the poverty rate, selected periods, 1979–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details. The methodology for this decomposition is taken from Danziger and Gottschalk (1995, Chapter 5), which explores the role of changes in socioeconomic characteristics (e.g., changes in average income, changes in income inequality, and demographic changes such as the change in racial groups' shares of the overall population) on the poverty rate (using the official poverty rate) between any two years. We focus specifically on the 1979–1989, 1989–2000, 2000–2007, 2007–2010, and 1979–2007 periods. To examine the impact of average income of the U.S. population on the poverty rate, we assign the average real income growth across the period to be the growth for all individuals between years t0 and t1 and simulate a new poverty rate. This procedure holds the shape of the distribution (inequality) constant in t0 while allowing incomes to grow equally for all individuals. This simulated poverty rate for t1 is then compared to the actual poverty rate in year t0, and the percentage-point difference is the change in the mean, i.e. the impact of income growth. The change due to income inequality is the percentage-point difference between the simulated poverty distribution in t1 and the actual poverty rate in t1.

We repeat this exercise using the demographic composition of each variable of interest to see the effect of these demographic changes on the overall poverty rate. First we calculate the weight of each demographic factor (such as individuals with college degrees) by its population share and simulate the poverty rate in t1 for all persons between t0 and t1, allowing for income to grow equally among all families and holding the demographic composition of the population in t0 constant. Then, we calculate a second simulated rate that incorporates both the mean income growth and the demographic changes across the period. The difference between these two simulated rates in t1 is the percentage point-change in the poverty rate due to demographic changes.

The interaction, or error, term states to what degree the demographic variables are conflated, which could lead to bias in measurement of a factor's impact. Since our error term is negative and relatively small (-.4 from 1979–2007), the reported relationship might slightly overstate the degree to which the simulated income decreases the poverty rate for each demographic group, but it is not enough to change the story.

Figures

Figure 7A. Poverty and twice-poverty rates, 1959–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin," and Table 5, "Percent of People by Ratio of Income to Poverty Level."

Figure 7B. Poverty rate, by age, 1959–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 3, "Poverty

Status, by Age, Race, and Hispanic Origin" and Current Population Survey Annual Social and Economic Supplement microdata (see Appendix A for details).

Figure 7C. Poverty rate, by race and ethnicity, nativity, and citizenship status, 1973–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin" and Table 23, "People in Poverty by Nativity." As with most other CPS data analyses presented in the book, race/ethnicity categories are mutually exclusive (i.e., white non-Hispanic, black non-Hispanic, and Hispanic any race).

Figure 7D. Poverty rate, by race and ethnicity, and age, 2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) *Historical Poverty Tables*, Table 3, "Poverty Status, by Age, Race, and Hispanic Origin" and from CPS-ASEC microdata; see Appendix A for details. As with most other CPS data analyses presented in the book, race/ethnicity categories are mutually exclusive (i.e. white non-Hispanic, black non-Hispanic, and Hispanic any race).

Figure 7E. Poverty rates of various types of families, 1959–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 4, "Poverty Status, by Type of Family, Presence of Related Children, Race and Hispanic Origin."

Figure 7F. Length of time in poverty over a two-year period, 2008–2009. Underlying data are from Survey of Income and Program Participation microdata (2008 panel).

Figure 7G. Share of the poor in "deep poverty," 1975–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin," and Table 22, "Number of People Below 50 Percent of Poverty Level."

Figure 7H. Poverty rate, official and under the Supplemental Poverty Measure, by age group, 2010. Underlying data are from the U.S. Census Bureau's *Current Population Reports* (Short 2011), Table 1, "Number and Percent of People in Poverty by Different Poverty Measures: 2010."

Figure 7I. Official and relative poverty rate, 1979–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin," and Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details. To be consistent with international comparisons, median income includes noncash transfers such as food stamps and housing subsidies.

Figure 7J. Demographic characteristics of poverty-level-wage workers vs. non-poverty-level-wage workers, 2011. Underlying data are from Current Population Survey Outgoing Rotation Groups microdata; see Appendix B for details. As with most other CPS microdata analyses presented in the book, race/ethnicity categories are mutually exclusive (i.e. white non-Hispanic, black non-Hispanic, and Hispanic any race).

Figure 7K. Industry, occupation, and union status of poverty-level-wage workers vs. non-poverty-level-wage workers, 2011. Underlying data are from Current Population Survey Outgoing Rotation Groups microdata; see Appendix B for details. Occupations do not sum to 100 percent because the figure excludes the "Other Occupations" category, which constitutes less than 2 percent of the workforce.

Figure 7L. Share of poverty-level-wage and non-poverty-level-wage workers with employer-sponsored health insurance and pension coverage, 2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details. The analysis includes workers in both the private and public sectors and does not have age limits or work requirements. Coverage is defined as being included in an employer-sponsored plan for which the employer paid for at least some of the coverage.

Figure 7M. Poverty rate, actual and simulated, 1959–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin," and Table 4, "Poverty Status, by Type of Family, Presence of Related Children, Race and Hispanic Origin," and from Bureau of Economic Analysis National Income Product Accounts, Table 7.1, "Selected Per Capita Product and Income Series in Current and Chained Dollars." The analysis is an adaptation of analysis by Danziger and Gottschalk (1995), whose method was to regress the poverty rate of the growth of real per capita gross domestic product from 1959–1973 and then simulate poverty rates based on that simple model. The link between GDP and poverty in the earlier period (1959–1973) and the potential for GDP to eradicate poverty by the 1980s holds true for alternative specifications including using only the under-age-65 poverty rate (to remove elderly, the main recipients of Social Security, also growing over this period) and controlling for one target demographic: female headed families.

Figure 7N. Change in productivity, 20th-percentile wages, unemployment, and poverty, selected periods, 1979–2010. Productivity data, which measure output per hour, are from the Bureau of Labor Statistics Major Sector Productivity and Costs data; the figure shows the average annual growth rate of productivity over the periods covered. The figure also shows the average annual growth rate of wages at the 20th percentile of the wage distribution for the given periods, using data from Current Population Survey Outgoing Rotations Group microdata; see Appendix B for details. The percentage-point changes in the unemployment rate across the periods shown come from the monthly Current Population Survey public data series, while percentage-point changes in the poverty rate come from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin."

Figure 7O. Increase in wages from a 1-percentage-point decline in the unemployment rate, by gender. Estimates use Current Population Survey Outgoing Rotation Group microdata (see Appendix B), and are computed based on a model employed by Katz and Krueger (1999). Annual changes in log wages are regressed on unemployment, lagged log-changes in the CPI-U-RS (but, following Katz and Krueger the coefficient on this is constrained to equal 1), lagged productivity growth, and dummies for 1989–1995, 1996–2000, and 2001–2007 (excluded period is 1979–1988). The sample covers the years 1979–2007.

Figure 7P. Impact of changes in family structure on the poverty rate, selected periods, 1979–2010. The figure looks at the overall composition of family structure in the United States (e.g., the share of families headed by a single mother) and measures how much the change in the composition has affected the poverty rate in given periods. For more information on the methodology underlying the figure, see the note to Table 7.3.

Figure 7Q. Impact of changes in U.S. economic and demographic composition on the poverty rate, 1979–2007. See note to Table 7.3.

Figure 7R. Per capita Social Security expenditures and the elderly poverty rate, 1959–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement *Historical Poverty Tables*, Table 2, "Poverty Status, by Family Relationship, Race, and Hispanic Origin," and Table 3, "Poverty Status, by Age, Race, and Hispanic Origin." Data are also from Social Security Administration trust fund data, Table 4a1, "Old-Age and Survivors Insurance Trust Fund Expenditures."

Figure 7S. Poverty rate absent targeted government programs, by age group, 2010. Underlying data are from Short (2011), Table 3a, "Effect of Excluding Individual Elements on SPM Rates: 2010."

Figure 7T. Share of bottom-fifth household income accounted for by wages, cash transfers, and in-kind income, 1979–2007. Underlying data are from the Congressional Budget Office, *Average Federal Taxes by Income Group*, "Sources of Income for all Households, by Household Income Category, 1979 to 2007" [Excel spreadsheet]. The Congressional Budget Office definition of in-kind income includes employer-paid health insurance premiums, food stamps, school lunches and breakfasts, housing assistance, energy assistance, and the fungible value of Medicare and Medicaid, as estimated by the Current Population Survey. CBO's definition of cash transfers includes payments from Social Security, unemployment insurance, Supplemental Security Income, Aid to Families with Dependent Children, Temporary Assistance for Needy Families, veterans' benefits, and workers' compensation.

Figure 7U. Earnings at the 10th percentile as a share of median worker earnings in selected OECD countries, late 2000s. Underlying data are metadata from the Organisation for Economic Co-operation and Development's *Distribution of Gross Earnings of Full-time Employees and Gender Wage Gap* database. Earnings for all countries are defined as gross earnings for full-time, full-year workers, with the exception of Denmark, which is for all workers, the Netherlands, which is for full time, full-year equivalent workers, and Switzerland, which is net earnings for full-time workers. The shares are earnings at the 10th percentile as a share of the median earnings in each country's respective currency.

Figure 7V. Earnings at the 10th percentile in selected OECD countries relative to the United States, late 2000s. Underlying data are metadata from the Organisation of Economic Co-operation and Development's *Distribution of Gross Earnings of Full-time Employees and Gender Wage Gap* database. See note for Figure 7U on definition of earnings. Data for earnings at the 10th percentile are converted into weekly earnings and are then converted into equivalent U.S. dollars using a purchasing power parity index from the International Monetary Fund *World Economic Outlook Database*. The figure shows the share of each country's 10th percentile earnings relative to the 10th percentile earnings in the United States.

Figure 7W. Relative poverty rate in the United States and selected OECD countries, late 2000s. Underlying data are from the Organisation for Economic Co-operation and Development's *Stat Extracts* public data series. Household-size-adjusted income, or equivalent income, is household income divided by the square root of the household size. Countries were chosen based on their productivity per worker hour using the "PPP Converted GDP Laspeyres Per Hour Worked by Employees at 2005 Constant Prices" series from *Penn World Table Version 7.0* (Heston, Summers, and Aten 2011). We chose to exclude countries whose productivity is less than half that of the United States. The OECD data base uses slightly different methods than that found in 7I (e.g., its handling of taxes and transfers are different), therefore, the relative rates for the United States are not exactly the same.

Figure 7X. Child poverty rate in selected developed countries, 2009. Underlying data are from UNICEF Innocenti Research Centre Report Card 10 (Adamson 2012)*,* Figure 1b, "Child Poverty Rate." The poverty rate is the percentage of children (age 0–17) living in households with equivalent income lower than 50 percent of the national median, where equivalent income is disposable income, adjusted for family size and composition. UNICEF uses a modified equivalence scale to adjust for household size by weighting the first adult in the household by 1, the subsequent adults by .5, and children under age 14 by .3, then summing the weights up and dividing total household income by the total weight. We chose countries based on their productivity per worker hour using the "PPP Converted GDP Laspeyres Per Hour Worked by Employees at 2005 Constant Prices" series from *Penn World Table Version 7.0* (Heston, Summers, and Aten 2011) and excluded countries whose productivity is less than half that of the United States.

Figure 7Y. Child poverty gap in selected developed countries, 2009. Underlying data are from UNICEF Innocenti Research Centre Report Card 10 (Adamson 2012), Figure 7, "The Poverty Gap." The child poverty gap is the distance between the poverty line and the median family income of children below the poverty line, expressed as a percentage of the poverty line. This is calculated by lining up all individuals in households by household-size-adjusted income (with children taking their family income value) and then locating the poverty line, which is 50 percent of national median income. UNICEF uses a modified equivalence scale to adjust for household size by weighting the first adult in the household by 1, the subsequent adults by .5, and children under age 14 by .3, then summing the weights up and dividing total household income by the total weight. The median income of children below the poverty line is then calculated. Then the gap between the poverty line and the median income of children is then taken as a share of the poverty line. For example, for a country with a median income of $50,000, the poverty line is $25,000. If the median income for children living below $25,000 is $15,000, the difference is $25,000-$15,000 = $10,000. This difference, taken as a share of the poverty line, yields a child poverty gap of $10,000/$25,000 (40 percent). We chose countries from the UNICEF list based on their productivity per worker hour using the "PPP Converted GDP Laspeyres Per Hour Worked by Employees at 2005 Constant Prices" series from *Penn World Table Version 7.0* (Heston, Summers, and Aten 2011), and excluded countries whose productivity is less than half that of the United States.

Figure 7Z. Extent to which taxes and transfer programs reduce the relative poverty rate, selected developed OECD countries, late 2000s. Underlying data are from the Organisation for Economic Co-operation and Development's *Stat Extracts* public data series. Household-size-adjusted income, or equivalent income, is household income divided by the square root of

the household size. We chose countries based on their productivity per worker hour using the "PPP Converted GDP Laspeyres Per Hour Worked by Employees at 2005 Constant Prices" series from *Penn World Table Version 7.0* (Heston, Summers, and Aten 2011), and excluded countries whose productivity is less than half that of the United States.

Figure 7AA. Social expenditure and relative poverty rates selected in OECD countries, late 2000s. Underlying data are from the Organisation for Economic Co-operation and Development's *Stat Extracts* public data series. The relative poverty rate is the share of individuals living in households with income below half of household-size-adjusted median income, which is household income divided by the square root of the household size. We chose countries based on their productivity per worker hour using the "PPP Converted GDP Laspeyres Per Hour Worked by Employees at 2005 Constant Prices" series from the *Penn World Table Version 7.0* (Heston, Summers, and Aten 2011), and excluded countries whose productivity is less than half that of the United States.