Attachment C

The State of Working America
12th Edition

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Overview

EPI DIGITAL EDITION

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CHAPTER 1

Overview

Policy-driven inequality blocks living-standards growth for low- and middle-income Americans

Like its predecessors, this edition of *The State of Working America* digs deeply into a broad range of data to answer a basic question that headline numbers on gross domestic product, inflation, stock indices, productivity, and other metrics can't wholly answer: "How well has the American economy worked to provide acceptable growth in living standards for most households?"

According to the data, the short answer is, "not well at all." The past 10 years have been a "lost decade" of wage and income growth for most American families. A quarter century of wage stagnation and slow income growth preceded this lost decade, largely because rising wage, income, and wealth inequality funneled the rewards of economic growth to the top. The sweep of the research in this book shows that these trends are the result of inadequate, wrong, or absent policy responses. Ample economic growth in the past three-and-a-half decades provided the potential to substantially raise living standards across the board, but economic policies frequently served the interests of those with the most wealth, income, and political power and prevented broad-based prosperity.

America's vast middle class has suffered a 'lost decade' and faces the threat of another

Wages and incomes of typical Americans are lower today than in over a decade. This lost decade of no wage and income growth began well before the Great Recession battered wages and incomes. In the historically weak expansion following the 2001 recession, hourly wages and compensation failed to grow for either

high school– or college-educated workers and, consequently, the median income of working-age families had not regained pre-2001 levels by the time the Great Recession hit in December 2007. Incomes failed to grow over the 2000–2007 business cycle despite substantial productivity growth during that period.

Although economic indicators as of mid-2012 are stronger than they were two or three years ago, protracted high unemployment in the wake of the Great Recession has left millions of Americans with lower incomes and in economic distress. This problem is actually quite solvable: Tackle the source of the problem—insufficient demand—with known levers of macroeconomic policy to generate demand. Unfortunately, the problem is not being solved.

Consensus forecasts predict that unemployment will remain high for many more years, suggesting that typical Americans are in for another lost decade of living standards growth as measured by key benchmarks such as median wages and incomes. For example, as a result of persistent high unemployment, we expect that the incomes of families in the middle fifth of the income distribution in 2018 will still be below their 2007 and 2000 levels.

Income and wage inequality have risen sharply over the last three-and-a-half decades

Income inequality in the United States has grown sharply over the last few decades. This is evident in nearly every data measure and is universally recognized by researchers. For example, if we look at cash "market-based incomes," which exclude the effects of taxes and transfers (benefits received through government programs such as Social Security) and employer-provided in-kind benefits such as health insurance, the top 1 percent of tax units claimed more than six times as much of the total income growth between 1979 and 2007 as the bottom 90 percent—59.8 percent to 8.6 percent. Similarly, there has been a tremendous disparity in the growth of wages earned by individual workers. Wages for the top 1 percent grew about 156 percent between 1979 and 2007, whereas wages for the bottom 90 percent rose by less than 17 percent.

Rising inequality is the major cause of wage stagnation for workers and of the failure of low- and middle-income families to appropriately benefit from growth

There has been sufficient economic growth since 1979 to provide a substantial across-the-board increase in living standards. However, because wage earners and households at the top reaped most of the benefits of this growth, wages were relatively stagnant for low- and middle-wage workers from 1979 to 2007 (except in the late 1990s), and incomes of lower- and middle-class households grew slowly. This pattern of income growth contrasts sharply with that of the postwar period up through the 1970s, when income growth was broadly shared.

The economy's failure to ensure that typical workers benefit from growth is evident in the widening gap between productivity and median wages. In the first few decades after World War II, productivity and median wages grew in tandem. But between 1979 and 2011, productivity—the ability to produce more goods and services per hour worked—grew 69.2 percent, while median hourly compensation (wages and benefits) grew just 7.0 percent.

Economic policies caused increased inequality of wages and incomes

Since the late 1970s, economic policy has increasingly served the interests of those with the most wealth, income, and political power and effectively shifted economic returns from typical American families to the already well-off. A range of economic policy choices—both actions and failures to act—in the last three decades have had the completely predictable effect of increasing income inequality. These choices include letting inflation consistently erode the purchasing power of the minimum wage, and allowing employer practices hostile to unionization efforts to tilt the playing field against workers. U.S. policies have also hastened integration of the U.S. economy and the much poorer global economy on terms harmful to U.S. workers, refused to manage clearly destructive international trade imbalances, and targeted rates of unemployment too high to provide reliably tight labor markets for low- and middle-wage workers.

Industry deregulation (of trucking, communications, airlines, and so on) and privatization have also put downward pressure on wages of middle-class workers. Meanwhile, deregulation of the financial sector—without a withdrawal of the government guarantees that allow private interests to take excessive risks—has provided the opportunity for well-placed economic actors to claim an ever-larger share of economic growth. An increasingly well-paid financial sector and policies regarding executive compensation fueled wage growth at the top and the rise of the top 1 percent's incomes. Large reductions in tax rates provided a motive for well-placed actors to take these risks and also fueled the after-tax income growth at the top.

Although these post-1979 economic policies predictably redistributed wages, income, and wealth upward, there was no corresponding benefit in the form of faster overall economic growth. In fact, economic growth from the 1970s onward was slower than the economic growth in the prior 30 years. Besides resulting in slower growth, economic policy decisions also contributed to the fragility of the U.S. economy in the run-up to the Great Recession. For example, otherwise-anemic economic growth in the mid-2000s was driven by a housing bubble made possible largely through a deregulated financial sector that was hiding, not managing, the growing risk that home prices would fall. This economic fragility proved catastrophic when confronted with the shock of plummeting

demand after the housing bubble burst and destroyed families' housing wealth. More equitable and stable economic growth can only occur if there is a marked change in the direction of U.S. economic policy.

Claims that growing inequality has not hurt middle-income families are flawed

Despite the near-universal acknowledgement of growing income inequality as a fact of recent American economic history, a number of studies have claimed that it has not prevented middle-income families from achieving acceptable income growth since 1979. These studies argue that under a comprehensive measure of income that includes benefits from employers and government transfers, incomes of the middle fifth of households in the income distribution grew by 19.1 percent between 1979 and 2007. But this 19.1 percent cumulative (0.6 percent annual) growth rate does not mean that the private sector of the American economy is performing well for middle-income families. First, had the middle fifth's incomes grown at the same 51.4 percent cumulative rate as overall average incomes (i.e., had there been no growth in income disparities), their annual income in 2007 would have been far greater—$18,897 higher. Second, this 0.6 percent annual growth rate does not come close to the income growth between 1947 and 1979, when middle-fifth family income grew 2.4 percent annually.

Third, the large share of this 1979–2007 income growth coming from government transfers (53.6 percent) reflects the strength of American social insurance programs (Social Security, Medicare, and Medicaid) and is not evidence that the private U.S. economy is being managed effectively or fairly. Given the unnecessary push to cut these programs going forward, it is unlikely that this source of middle-class income growth can be relied on in future decades. Fourth, higher household labor earnings contributed a modest 6.1 percent to this middle-fifth income growth, and the impressive ability of American households to steadily increase their work hours over this period, in part by increasing the number of household members employed, will not be replicable in the years ahead.

Last, the data on comprehensive incomes are technically flawed because they count, as income, rapidly rising health expenditures made on behalf of households by employers and the government without accounting for the excessive health care inflation that has absorbed large portions of the increase in this particular source of income. If rising health care costs are properly accounted for, the 19.1 percent growth in comprehensive middle-fifth incomes is lowered by a third. If we strip out health care inflation, government transfers, and additional hours worked—elements that add to measured income growth but cannot be attributed to a well-performing private economy—middle-class incomes grew just 4.9 percent across the 28 years from 1979 to 2007, with most of that growth occurring just in the late 1990s.

Growing income inequality has not been offset by increased mobility

Growing income inequality in the United States is a trend made more disturbing by static, and perhaps declining, economic mobility. Despite the image of the nation as a place where people with initiative and skills can vault class barriers, America today is not a highly mobile society, compared with our international peers. In one study of 17 Organisation for Economic Co-Operation and Development (OECD) countries, the United States ranked 13th on a measure of mobility, ahead only of Slovenia, Chile, Italy, and the United Kingdom, and far behind Denmark, Norway, Finland, and Canada.

Americans largely end up where they started out on the economic ladder, and the same is true for their children. For example, one study showed that two-thirds (66.7 percent) of sons of low-earning fathers (in the bottom fifth of the earnings distribution) end up in the bottom two-fifths as adults, while only 18.1 percent make it to the top two-fifths. There is no evidence that mobility has increased to offset rising inequality, and in fact some research shows a decline.

Inequalities persist by race and gender

As this book, and our research in general, shows, there is actually no single economic "state of America" but rather an America that is experienced differently, and often unequally—not only by class, as discussed, but by race and gender. For example, a review of employment rates from 1979 to 2011 shows that black and Hispanic unemployment always far exceeded white unemployment. As this book was nearing completion in July 2012, the overall unemployment rate was 8.3 percent—roughly the same as the African American unemployment rate during all of 2007, the last year of economic expansion before the Great Recession.

Further, even in 1992, the peak of black/white equality in wealth holdings, median black household wealth was just 16.8 percent of median white household wealth. By 2010—after the housing bubble had burst and destroyed $7 trillion in equity in residential real estate (the most widely held type of wealth)—median African American wealth was just 5.0 percent of median white wealth.

And while gaps between labor market outcomes of men and women have closed in recent decades, progress has occurred not just because women gained ground, but also because men lost ground. Gaps in employer-provided pension coverage rates between men and women, for example, have rapidly closed in recent decades, but only because men's coverage rates have fallen while women's have stagnated.

Economic history and policy as seen from below the top rungs of the wage and income ladder

This chapter assesses U.S. economic performance over the last 30 years through the lens of this failure of the economy to deliver appropriate gains to the broad middle class and fuel greater social mobility. One could label this policy regime a "failure," but one could also say this was a "failure by design"—the policies worked as intended to boost the economic standing of those who already had the most income and wealth. Our discussion in this chapter begins with the Great Recession and its aftermath, moves to the lost decade period commencing with the 2001 recession, and concludes with the years between 1979 and the beginning of the Great Recession.

The Great Recession: The shock to demand and the need for continued stimulus. The key lesson to be learned from our current crisis is that full and meaningful recovery from the Great Recession that officially ended in June 2009 has not yet happened and is assuredly not guaranteed. As this book is being written in mid-2012, things are indeed better than they were two and three years ago, but the American economy remains far from healthy, and there is danger in prematurely declaring "mission accomplished." There is a clear continued need for fiscal stimulus such as aid to the states, infrastructure investments, and safety net supports such as unemployment insurance and food stamps, as well as expansionary monetary policy. But, just as patients prescribed antibiotics should not stop taking them as soon as their immediate symptoms fade, we must not remove economic supports before full economic health has been genuinely restored; doing so could come back to hurt us.

Economic lost decades: The threat of continued disappointing wage and income growth. Our examination of a broad range of living standards benchmarks argues strongly that recovery to the economic conditions that prevailed in 2007, immediately prior to the Great Recession, is too modest a goal. The 2000s expansion was the weakest on record and provided very little in terms of lasting gains for American families. As a result, we have had a lost decade where wages and benefits failed to grow for the vast majority of the workforce, including college-educated workers as well as the two-thirds of the workforce who lack a college degree. The typical working-age family had lower income in 2007 than before the early 2000s recession, and incomes fell further in the Great Recession. Using current projections of unemployment in coming years, we estimate that the average income of households in the middle fifth of the income distribution will remain below its 2000 level until at least 2018. This would lead to another lost decade for far too many American workers and the households and families they support.

Stagnating living standards before the lost decade: Rising inequality from 1979 to 2007 halts income and wage growth for most Americans. The stagnation of wages and incomes for low- and middle-income households during the 2000s was merely a continuation of longer-term trends. For most of the years between 1979 and 2007, living standards growth for most American households lagged far behind overall average growth because the vast majority of growth was claimed by a select sliver at the top of the income ladder. Without a brief period of strong across-the-board wage and income growth in the late 1990s, virtually the *entire* 28-year period before the Great Recession may well have been an era of lost growth for low- and middle-income families. The key to understanding the growing inequality of wages and benefits is the continued divergence between the growth of productivity and the hourly wages and benefits of a typical worker. Explaining this divergence is essential for understanding the failure of the U.S. economy to deliver for most Americans and their families.

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.

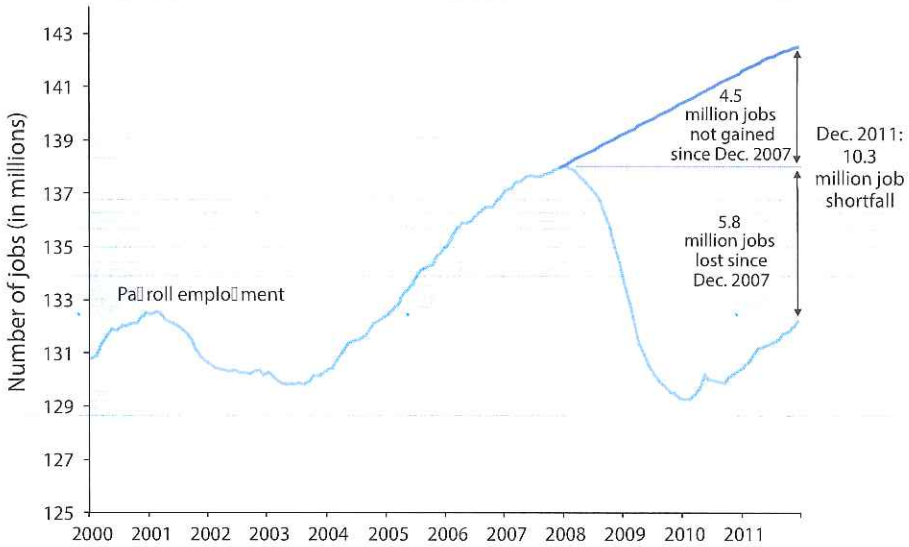
The Great Recession: Causes and consequences

The State of Working America's analysis of economic data extends from the 1940s through 2011. In the context of recent history, there was good news for the American economy at the end of 2011: After peaking at 10.0 percent in October 2009, the unemployment rate had fallen by 1.5 percentage points, fully 1.3 of which had been shaved off just in the preceding 13 months.

Unfortunately, this decline in the unemployment rate from October 2009 to December 2011 was not driven primarily by a jobs boom. Rather, essentially all of the reduction was spurred by a sharp decrease in the labor force participation rate (the share of working-age people who are either employed or unemployed, i.e., jobless but actively seeking work), which dropped by a full percentage point. Most of this decline in labor force participation was due to the sluggish economy itself, rather than any long-term demographic trend (as demonstrated in Table 5.5 later in this book).

Even worse, the unemployment rate at the end of 2011 was 8.5 percent—higher than it had been since 1983 (except since the onset of the Great Recession). Further, there remained a huge gap between labor-market health at the end of 2011 and even that which prevailed in December 2007, which was hardly a high-water mark (as will be discussed later). The size of this gap in labor-market health is depicted in **Figure 1A**: In December 2011, the American economy needed roughly 10.3 million jobs to return to the unemployment and labor force participation rates of December 2007—5.8 million jobs to replace those still lost from

Figure 1A Payroll employment and the number of jobs needed to keep up with the growth in the potential labor force, Jan. 2000–Dec. 2011



Source: Authors' analysis of Bureau of Labor Statistics Current Employment Statistics and Congressional Budget Office (2012)

the recession and 4.5 million new jobs to absorb the growth in the working-age population.

The source of this labor market distress is clear: the Great Recession, brought on at the end of 2007 by the bursting of the housing bubble that had provided the only real boost to the otherwise-anemic recovery from the 2001 recession.

A very condensed macroeconomic history of the Great Recession and its aftermath

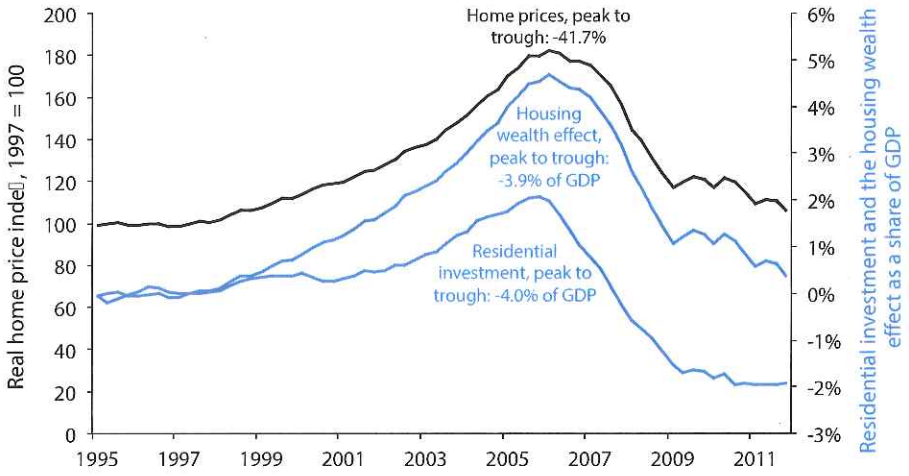
Between June 2006 and June 2009, housing prices fell roughly 30 percent, which erased roughly $7 trillion in U.S. household wealth. According to extensive research literature on the housing "wealth effect," each $1 in housing wealth generates roughly 6 to 8 cents of annual consumer spending. Thus the $7 trillion in lost housing wealth led to a roughly $500 billion contraction in consumer spending. On top of this, as housing prices fell, activity in the overbuilt residential real estate construction sector (i.e., building new homes and buildings) collapsed, leading to roughly another $400 billion in lost demand. Then, the direct shock to demand from this drop in consumer spending and residential construction quickly rippled outward. As the supply of customers dried up, firms stopped investing in new

plants and equipment, depressing overall business investment. As tax revenues fell and social safety net expenditures increased, state and local governments reduced programs, cut jobs, and increased revenues, which further reduced overall demand for goods and services and exacerbated the recession. The relationships between home prices and wealth effects and residential investment are shown in **Figure 1B**.

In short, the Great Recession was a classic "Keynesian" downturn (one driven by deficient aggregate demand) that required, and still requires, Keynesian solutions (policy measures to restore this demand). The negative shock to private spending and demand that led to the Great Recession was enormous—greater in most estimates than the one that caused the Great Depression. Without sufficient spending to maintain demand for goods and services, the demand for labor fell, leading to massive job losses and a sharp rise in unemployment.

The proper policy response to this collapse in demand was analytically easy to design if daunting to implement: Use all the levers of macroeconomic policy that can spur spending in the near-term to restore the demand that was lost in the wake of housing price declines. Unfortunately, too many in the macroeconomic policymaking realm had grown accustomed to thinking that just one lever

Figure 1B Home prices and their impact on residential investment and housing wealth, 1995–2011



Note: The housing wealth effect is obtained by multiplying the change in housing wealth from its 1997 average by $.06 (the low-end estimate of annual consumer spending generated by each dollar in housing wealth) and expressing the resulting product as a share of overall GDP. Data are quarterly.

Source: Authors' analysis of Case, Quigley, and Shiller (2005); Shiller (2012); Bureau of Economic Analysis National Income and Product Accounts (Table 1.1.5); and Federal Reserve Board Flow of Funds Accounts

was ever needed to fight recessions. Specifically, a decades-in-the-making conventional wisdom argued that the U.S. economy could be revived simply by having the Federal Reserve lower short-term "policy" interest rates, putting downward pressure on the longer-term interest rates of housing and industrial loans. This, it was assumed, would spur households and businesses to sufficiently boost their borrowing and spending to buy new homes and new capital equipment. But in late 2008, these policy interest rates were buried at zero, even as job losses were reaching historic proportions, with roughly 740,000 jobs on average lost *each month* in the six months between November 2008 and April 2009.

This hemorrhaging of jobs was radically slowed and finally halted by the large boost to economic activity from the 2009 American Recovery and Reinvestment Act (ARRA), as well as by the federal budget's "automatic stabilizers"—progressive taxes and safety net programs that kept households' disposable incomes from falling as fast as market incomes fell.

However, as ARRA's support began fading in the second half of 2010, economic growth decelerated markedly. The policy response to the Great Recession had indeed arrested the outright economic contraction, but had not gone far enough to bring the economy back to full health. At the end of 2011, the unemployment rate remained at 8.5 percent and had matched or exceeded the highest rates of the recessions of the early 1990s and early 2000s for a full three years. As this book went to press, policymakers were *talking* about the need to reduce unemployment but were effectively blocking precisely those efforts that would provide more support to the flagging economy.

We should be very clear about the danger of this complacency in the face of elevated unemployment. It's not simply that full recovery to pre-recession health will come too slowly—though this delay alone does indeed inflict a considerable cost. Instead, the danger is that full recovery *does not come at all.* Nations have thrown away decades of growth because policymakers failed to ensure complete recovery. Japan has been forfeiting potential output—trillions of dollars' worth, cumulatively—for most of the past 20 years. Recent research (Schettkat and Sun 2008) has suggested that the German economy operated below potential in 23 of 30 years between 1973 and 2002 because monetary policymakers were excessively inflation-averse. Lastly, U.S. economic history provides the exemplar of what can happen to a depressed economy when policymakers fail to respond correctly: The level of industrial production in the United States was the same in 1940 as it was 11 years before.

While we cannot *guarantee* that the current policy path leads inevitably to stagnation, it is unwise to flirt with this possibility when there are clear solutions to our current unemployment crisis. It is in fact by far the most immediately solvable of the economic problems confronting the United States. Experts widely agree on the source of the problem (insufficient demand) and the levers

of macroeconomic policy to pull to generate demand. Evaluations of ARRA and other interventions carried out so far overwhelmingly support this diagnosis and these cures.

If the U.S. political system cannot focus on and solve the joblessness crisis, prospects are dim indeed for solving the longer-term challenges documented throughout *The State of Working America* that have also been bred by policy choices made in recent decades.

Economic 'lost decades': Weak growth for most Americans' wages and incomes before and likely after the Great Recession

While a return to pre-recession unemployment and labor force participation rates is the most pressing U.S. policy priority, it is a far-too-modest goal for those committed to achieving broadly shared prosperity. To put it bluntly, the entire 2000–2007 business cycle was no Golden Age for most American workers and their families.

Even from a macroeconomic perspective, the economic recovery and expansion following the 2001 recession was historically weak. Gross domestic product, employment, compensation, and investment all turned in the weakest performance of any post–World War II business cycle, and consumption growth and unemployment performed far below average. This weak macroeconomic performance followed a decades-long policy trajectory that had deprived too many American workers of bargaining power they need to secure robust wage growth. As a result, on most measures of economic success, typical American families and households progressed little or not at all during this time. Layering the worst economic crisis in 80 years on top of this anemic growth produced a lost decade of prosperity for most American households.

We do not use the term "lost decade" lightly. It has a rich and sad history in economics, having first been used to describe the catastrophic performance of economies in the developing world (Latin America and Africa in particular) in the wake of international financial crises in the 1980s and 1990s. Later, the term was applied to Japan's experience during the 1990s and 2000s, when bursting asset market bubbles hobbled economic growth for over 10 years (in fact, Japan may have just been emerging from its own lost decade before the global Great Recession hit in 2007).

From the perspective of low, moderate, and middle-income American households, a lost decade *has already happened* here in the United States; key living-standards benchmarks such as median incomes and wages have posted either zero or negative growth since the early 2000s. Worse, given the dependence of incomes and wages on crucial labor market barometers such as unemployment and labor

force participation rates, and given how long these barometers are expected to perform short of pre-recession levels, we may well undergo a full *two* decades of stagnation of many living-standard benchmarks.

Weak labor demand at the heart of the lost decade

Table 1.1 provides data on key labor market indicators and living-standards benchmarks over the full 2000s business cycle and through the Great Recession and its aftermath. Between 2000 and 2007, employment grew at an annualized rate of just 0.6 percent—only a third the rate of growth between the business cycle peaks of 1989 and 2000 and across all post–World War II business cycles. The stunning job losses inflicted by the Great Recession then followed this weak growth. By the end of 2011—two-and-a-half years after the official end of the Great Recession—payroll job levels had only returned to mid-2004 levels.

The last decade looks equally dismal as measured by the most widely cited barometer of labor market health—the unemployment rate. In 2000 the average annual unemployment rate was just 4.0 percent. This extraordinarily low rate was never regained. Even in 2006 and 2007, when unemployment was at its lowest point in the 2000–2007 business cycle, the average unemployment rate was 4.6 percent. The average annual unemployment rate spiked in the aftermath of the Great Recession, peaking at 9.6 percent in 2010. By 2011, it had fallen only to 8.9 percent, more than twice as high as in 2000. And, as high as it has been, the unemployment rate may well paint too-rosy a picture of the state of labor demand in the 2000s and today. When labor force participation falls, measured unemployment falls, all else equal—and by the end of 2011, the labor force participation rate was at its lowest point during either the recession or recovery.

Considerations such as these suggest going to other labor market indicators to better gauge labor market health over the 2000s and today. One of our preferred alternative measures of labor market health is the employment-to-population ratio (EPOP) of prime-age (25- to 54-year-old) workers. Because the unemployment rate examines only those who self-identify as actively looking for work, and because this active job search is likely curtailed when potential workers are unable to find jobs after long searches, the prime-age EPOP may better capture short-run changes in labor market health. Since the prime-age EPOP excludes many college students and retirees—population groups not expected to be actively searching for work—it is less affected by demographic shifts.

Changes in the prime-age EPOP—tracked in **Figure 1C**—tell an even darker story than changes in unemployment. The EPOP, which peaked at 81.8 percent in the first quarter of 2000, failed to approach that rate during the economic recovery and expansion preceding the Great Recession, instead peaking at 80.2 percent in the first quarter of 2007. Then the Great Recession hit and the prime-age EPOP fell, by a catastrophic 5.3 percentage points by the fourth

Table 1.1 Key labor market indicators and living-standards benchmarks, 2000–2011 (2011 dollars)

	Payroll employment	Unemployment rate	Labor force participation rate	Working-age employment-to-population ratio	Median household income*	Working-age median family income*	Worker hourly wages: 10th percentile	Worker hourly wages: Median	Worker hourly wages: 95th percentile	Total economy productivity
2000	131,785	4.0	67.1	81.5	$54,851	$69,233	$8.24	$15.99	$45.44	$49.62
2007	137,598	4.6	66.0	79.9	54,499	68,893	8.45	16.40	49.39	57.22
2011	131,359	8.9	64.1	75.1	51,014**	63,967**	8.16	16.07	49.74	60.83
Change*										
2000–2007	0.6	0.6 pp's.	-1.1 pp's.	-1.6 pp's.	-0.1	-0.1	0.4	0.4	1.2	2.1
2000–2011	0.0	4.9	-3.0	-6.4	-0.7**	-0.7**	-0.1	0.0	0.8	1.9

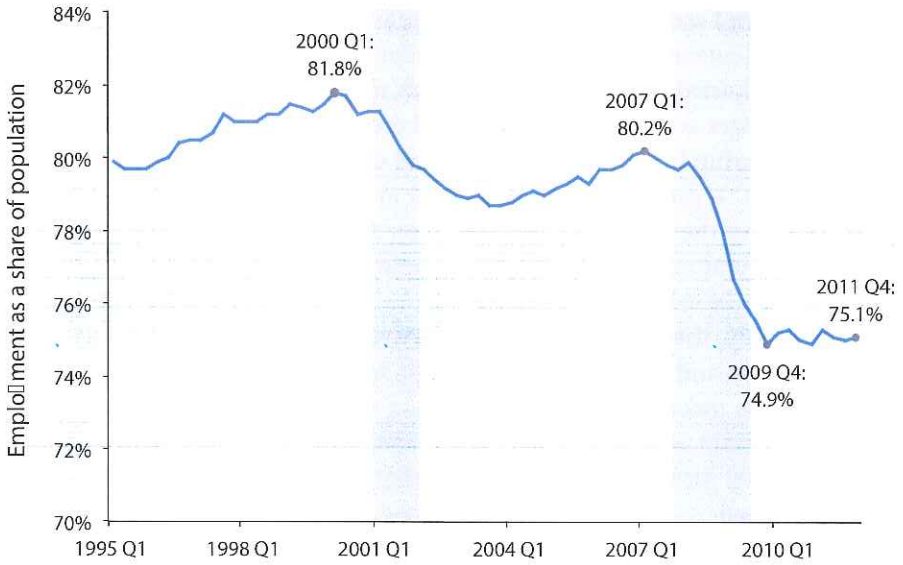
* Data are for money income.

** Data are for 2010 (top panel) and 2000–2010 (bottom panel) due to data limitations.

*** Percent change numbers are annualized rates; percentage-point change numbers are cumulative change.

Source: Authors' analysis of Current Population Survey (CPS) public data series, CPS ASEC microdata and *Historical Income Tables* (Table H-5), CPS-ORG microdata, BLS Current Employment Statistics, and unpublished Total Economy Productivity data from BLS Labor Productivity and Costs program

Fig□ re 1C Employment-to-population ratio, age 25□54, 1995□2011



Note: Data are quarterly and extend from the first quarter of 1995 to the fourth quarter of 2011. Shaded areas denote recessions.

Source: Authors□ analysis of Current Population Survey public data series

quarter of 2009—the largest cyclical fall in the history of this statistic. As of the last quarter of 2011, the prime-age employment-to-population ratio was 75.1 percent, which, except for during the Great Recession, was lower than at any point since 1983.

Weak labor demand devastates key living standards

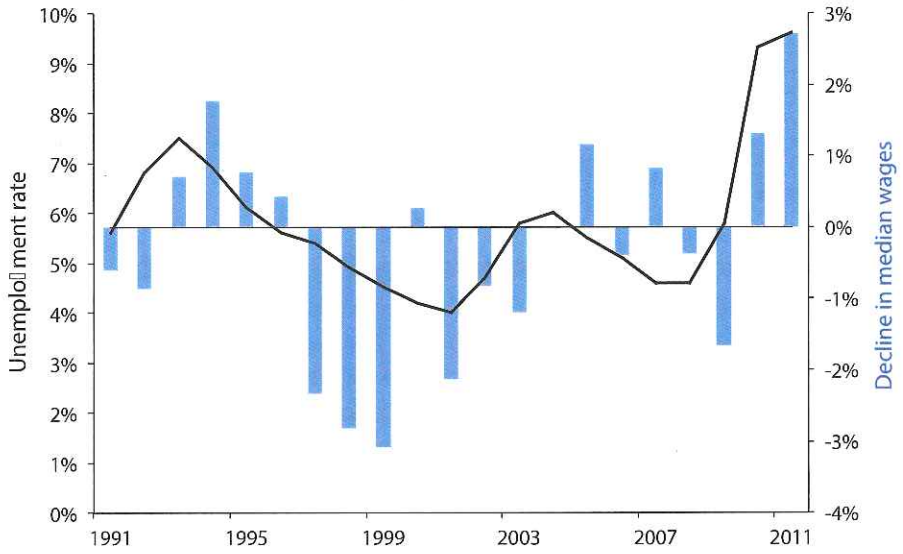
The weak labor demand apparent in these trends in unemployment rates and employment-to-population ratios does not just damage those who cannot find work. Because a large pool of potential workers who are not currently employed provides extra competition for incumbent workers, employees' bargaining power is sharply reduced during times of weak labor demand. This reduced bargaining power results in depressed rates of growth of hourly wages. And because overall incomes for typical American households are so dependent on wage and salary income, overall income growth for these households tends to slow as well.

For example, a robust body of research has found that high rates of unemployment place downward pressure on wage growth. In our research, we find that a 1 percentage-point increase in the unemployment rate has been associated (all else equal) with a roughly 0.9 percent reduction in the annual growth of

median wages for both men and women. Wages at the bottom end of the wage distribution are even more sensitive to changes in unemployment, while wages at the top end are a bit less sensitive. Recent history reflects this relationship. As the unemployment rate rose by 4.3 percentage points between 2007 and 2011, inflation-adjusted median wages for both men and women fell, and inflation-adjusted wages at the 10th percentile fell even more. While Chapter 4 examines this relationship between wage growth and unemployment in detail (particularly Figure 4W), it can be seen relatively well in the raw numbers, as in **Figure 1D**, which shows the decline in real (inflation-adjusted) median wages and lagged unemployment rates. High rates of unemployment lead to low (or even negative) annual rates of median wage growth.

Similarly, there is a clear empirical relationship between high levels of unemployment and slower income growth for families at the low and middle rungs of the income distribution. (In fact, there is a statistically and economically significant relationship between unemployment and income growth rates for all family income percentiles up to the 90th, though it tends to weaken as incomes rise.)

Figure 1D Unemployment rate and real median-wage decline, 1991–2011



Note: In this graph, the unemployment rate is lagged by one year because its impact on unemployment is not immediate.

Source: Authors' analysis of Current Population Survey public data series and CPS Outgoing Rotation Group microdata

These historic relationships between wage and income growth and labor demand explain much of the lost decade of wage and income growth for typical American households. As the labor-market momentum of the late 1990s and early 2000s faded, higher rates of unemployment and lower employment-to-population ratios led to a marked slowdown in wage and income growth. As shown in Table 1.1, between 2000 and 2007, worker hourly wages at the 10th percentile and at the median grew only 0.4 percent a year, whereas wages at the 95th percentile grew 1.2 percent annually—three times as much.

Further, these rates probably understate just how weak labor demand was in the 2000s. Wage-growth momentum from the tight labor markets of the late 1990s carried into the early 2000s then faded, with wages for most American workers actually falling through most of the 2001 to 2007 recovery. For example, worker hourly wages at the 10th percentile peaked in 2002, then fell by 1.7 percent between 2002 and 2007. Median worker hourly wages peaked in 2003, then fell by 1.6 percent between 2003 and 2007. Then, as unemployment rose rapidly after the onset of the Great Recession (increasing 4.3 percentage points between 2007 and 2011), 10th-percentile and median wages fell rapidly. By 2011, after being battered by years of high unemployment, wages at the 10th percentile were down by 5 percent relative to their 2002 peak, and median wages were down by 3.5 percent relative to their 2003 peak.

Table 1.1 also shows data on median household income, another key barometer of typical living standards. This measure never recovered its pre-2001 peak during the subsequent business cycle. By 2010, median household income had fallen by 0.7 percent even relative to the level that prevailed a full decade before, in 2000.

The crucial role of tight labor markets in generating wage growth is highlighted by another finding in Table 1.1. The weak wage and employment performance for most American households occurred during a period of adequate economy-wide productivity growth: Between 2000 and 2007, productivity grew 2.1 percent annually, more than five times faster than median worker hourly wages.

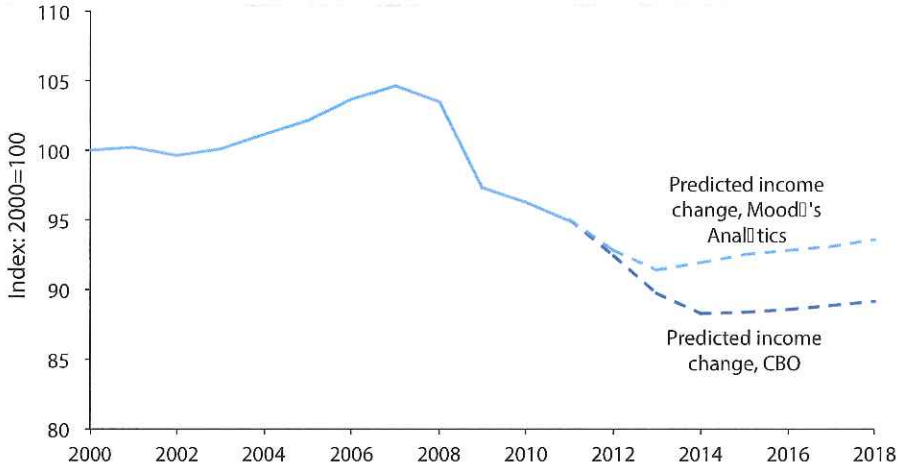
Dim growth prospects forecast another lost decade

The crucial role of tight labor markets in generating wage and income growth is especially disquieting given the extreme economic weakness projected in coming years. Most near-term forecasts of unemployment do not project a return to even too-conservative official estimates of "full employment" (the absolutely lowest unemployment rate consistent with non-accelerating inflation) until 2017 or 2018. Further, if job growth continues at its 2011 pace, the U.S. economy would not return to December 2007 unemployment and labor force participation rates until 2021—assuming that the United States does not have another recession in

this period. This would entail a 12-year stretch without a recession, a happy circumstance that has not blessed the United States since World War II, and almost certainly not before World War II either.

The consequences of recovery this slow are detailed in Chapter 2. Based on its historic relationship with unemployment, we can project income growth for middle-income families in coming years. For this exercise, we use two widely cited unemployment forecasts, one from the Congressional Budget Office (CBO) and another from Moody's Analytics Economy.com, both of which project that the U.S. economy will return to pre-recession labor market conditions for the first full year in 2018. As **Figure 1E** indicates, under both scenarios, in 2018 incomes of families in the middle fifth of the income distribution will still be below middle-fifth family income in 2000. This outcome would constitute two lost decades for family income growth, a likely scenario unless policymakers commit to ensuring a much more rapid decline in joblessness than is currently projected. This is an underappreciated economic catastrophe in the making.

Figure 1E Change in real family income of the middle fifth, actual and predicted, 2000–2018



Note: The figure shows the paths of income growth projected by a model based on the relationship between income growth and the unemployment rate from 1948 to 2010, using forecasted unemployment rates from the Congressional Budget Office and Moody's Analytics. Data are for money income.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Income Tables* (Tables F-2, F-3, F-5), Congressional Budget Office (2012), and Moody's Analytics (2012)

Two key lessons from the lost decade

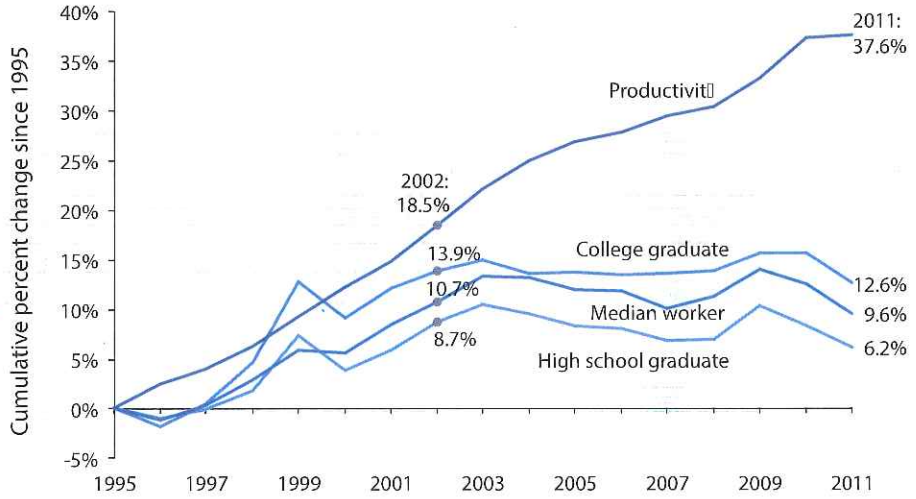
This survey of evidence from both the Great Recession and the anemic economic expansion that preceded it imparts a clear lesson: Typical Americans' wages and incomes need tight labor markets in order to post gains that match economy-wide averages. And often what looks upon casual inspection to be a tight labor market (say, one with an overall unemployment rate below 5 percent, as was the case in 2006 and 2007) is not adequate to reliably spur across-the-board growth. (In the following section we detail the forces that have depressed wage and income growth for most Americans even in seemingly tight labor markets—forces driven by policy, such as declining unionization, eroding purchasing power of the minimum wage, and global integration.)

Given this, policymakers need not only to reverse the policy changes that have restricted wage and income growth but recommit to the goal of full employment. The pursuit of full employment should not be stymied by arguments (made often in contemporary debates) that it will lead to rising inflation. Purely *hypothetical* increases in inflation caused by excessively tight labor markets should be no excuse to abandon the effort to move the economy quickly back to full employment after a recession that has inflicted long-lasting damage on wages and incomes.

Another key lesson from our review of the lost decade can be found in the extent of wage declines across workers with different levels of education. Contrary to the conventional wisdom in certain policy circles, the wage problems of American workers are not driven by a lack of skills. The pattern of hourly wage declines as the late 1990s boom subsided affected high school and college graduates similarly. In the last four years of the recovery and expansion preceding the Great Recession, average compensation (wages plus benefits) for high school and college graduates shrank by 3.2 and 1.2 percent, respectively, even as overall productivity rose by 6.0 percent. **Figure 1F** shows the trends for high school and college graduates as well as for the median worker and overall productivity. The notable upward trend in compensation in the late 1990s and early 2000s had clearly flattened out well before the Great Recession, whereas productivity continued to climb.

This finding presages a key policy lesson from *The State of Working America*: Productivity growth—the increased overall ability of the economy to generate incomes—provides only the potential for, not a guarantee of, rising living standards for most American households. To make sure this *potential* growth translates into *actual* growth, policymakers must ensure that nothing drives a wedge between the two. The largest such wedge—the extremely large share of overall growth claimed by a narrow slice of already-affluent households at the very top—is discussed in the next section.

Fig□ re 1F Cumulative change in total economy productivity and real hourly compensation of selected groups of workers, 1995□ 2011



Source: Authors□ analysis of unpublished Total Economy Productivity data from the Bureau of Labor Statistics Labor Productivity and Costs program, Bureau of Economic Analysis National Income and Product Accounts data, and Current Population Survey Outgoing Rotation Group microdata

Extraordinarily unequal growth *before* the lost decade: Rising inequality blocks income and wage growth from 1979 to 2007

Long before most Americans' wages and incomes were flattened by the lost decade, they endured a decades-long stretch when these wages and incomes lagged far behind overall economic growth. Living standards, which once advanced steadily and near-uniformly across successive generations of Americans, decelerated rapidly beginning roughly three decades ago. The primary source of the slowdown is easy to identify: A narrow slice of households at the top of the income distribution claimed a vast majority of the income generated from 1979 to 2007, leaving insufficient gains for everybody else.

Income inequality and stagnating living standards

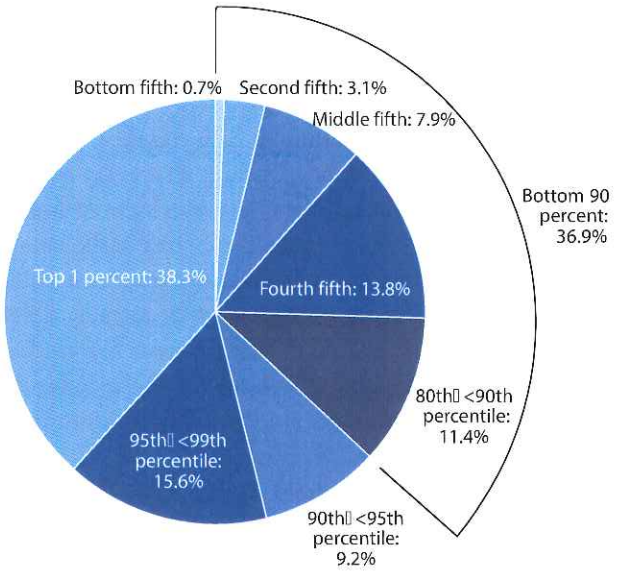
The State of Working America documents the many ways in which the unequal distribution of economic growth affects the potential living standards of most of the population. Perhaps the clearest way to illustrate the top's disproportionate claim on economic growth is to calculate the share of overall income growth that

is attributable to just the income growth of the top 1 percent. The results of this calculation are shown in **Figure 1G**.

Between 1979 and 2007, 38.3 percent of total income growth in the American economy was attributable to the income growth of the top 1 percent of households. This was a larger share than that attributable to the bottom *90 percent* of households (36.9 percent). Notably, the comprehensive income measure used here includes not just wages and capital gains and other sources of "market-based" income, but also includes in-kind benefits from employers and government, often thought to disproportionately supplement resources for those at the middle and bottom of the income scale.

The sharp rise in income inequality in the United States between 1979 and 2007 is apparent in every major data source and is universally recognized by researchers. **Figure 1H** shows the share of growth in total household incomes (holding the number of households constant) that accrued to the top 5 percent and top 1 percent using various income concepts ranging from exclusively market-based incomes (e.g., wages, capital gains) to more comprehensive measures of income

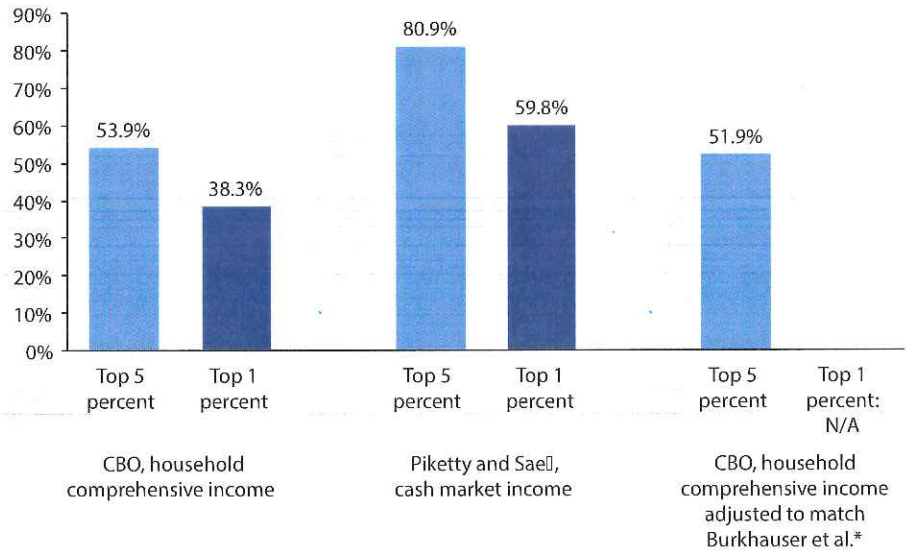
Fig re 1G Share of total household income growth attributable to various income groups, 1979 2007



Note: Data are for comprehensive income.

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

Figure 1H Share of average income growth accounted for by the top 5 percent and top 1 percent, by dataset and income concept, 1979–2007



* As described in Chapter 2, this bar uses Burkhauser's income concepts for CBO income data because CBO income data are not top-coded.

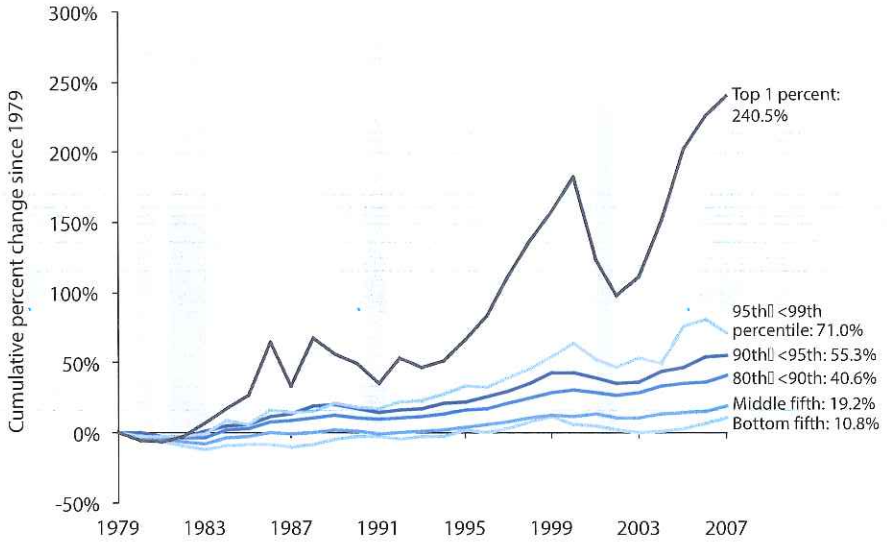
Source: Authors' analysis of Piketty and Saez (2012, Table A-6); Congressional Budget Office (2010a); Burkhauser, Larrimore, and Simon (2011, Table 4)

(including employer benefits, government cash transfers, and in-kind support such as Medicare and Medicaid). The key lesson is that every source shows a dramatic increase in inequality; the source showing the *least* increase in inequality from 1979 to 2007 still shows the top 5 percent gained over half of the income growth over this period. (A more detailed discussion of the various sources is available in Chapter 2.)

Figure 1I shows the gap in income growth rates at different points in the distribution. Between 1979 and 2007 (the last year before the Great Recession), incomes of the top 1 percent of households in the income distribution rose by 240.5 percent. But incomes of the middle fifth of households grew only 19.2 percent over the 28-year period.

This huge divergence in household income growth, a divergence apparent in all data sources and across all income measures and across all units of observation (i.e., households, families, individuals), was overwhelmingly driven by divergence in pre–tax-and-transfer incomes ("market-based incomes"). Because the federal income tax remains progressive (though far less so than it used to be) and because many components of government transfers are thought to boost incomes at the low and middle segment of the income scale, incomes measured post–tax and

Fig□ re 1I Change in real annual household income, by income group, 1979□2007



Note: Data are for comprehensive income. Shaded areas denote recessions.

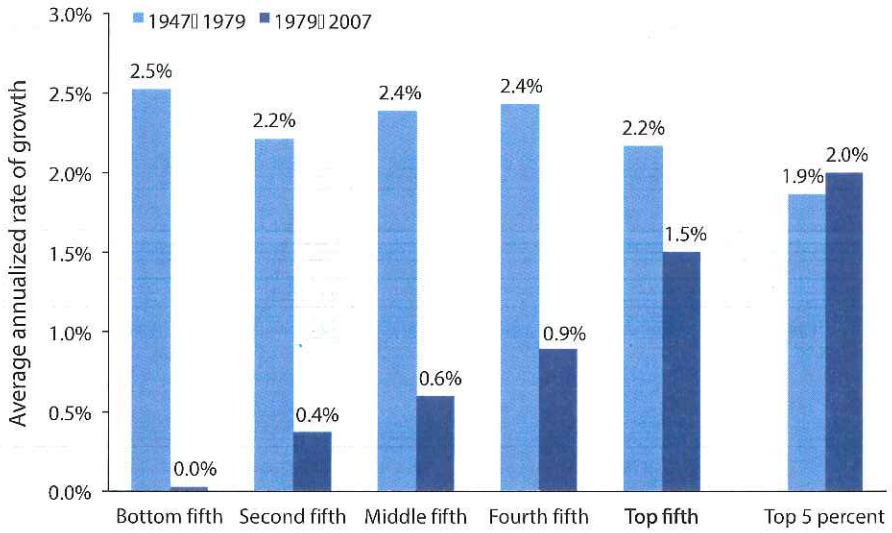
Source: Authors□ analysis of data from the Congressional Budget Office (2010a)

transfers are generally more equal across the distribution at any point in time. But between 1979 and 2007, the inequality-reducing effect of taxes and transfers actually *declined* across most measures of inequality. Nevertheless, the declining boost to income shares at the low and middle portions provided by tax-and-transfer policies pales in comparison to the degree to which market-based income generated increasing inequality.

We close this discussion of overall income inequality with two observations. First, it is not inevitable that market economies generate chronically rising inequality, as **Figure 1J** demonstrates. The American economy delivered extraordinarily equal, and much more rapid, growth in family incomes between 1947 and 1979 than between 1979 and 2007. For example, in the earlier period, incomes of the middle fifth grew 2.4 percent annually, compared with 1.9 percent annual growth in incomes of the top 5 percent. In the later period, annual income growth for the middle fifth had fallen to 0.6 percent, compared with 2.0 percent for the top 5 percent.

Second, the sheer amount of income transferred to the top in recent decades has been enormous, and had inequality not risen over this time, there would have been enough income to *significantly* increase family incomes at the bottom and middle. A straightforward demonstration of this is provided in **Figure 1K**, which

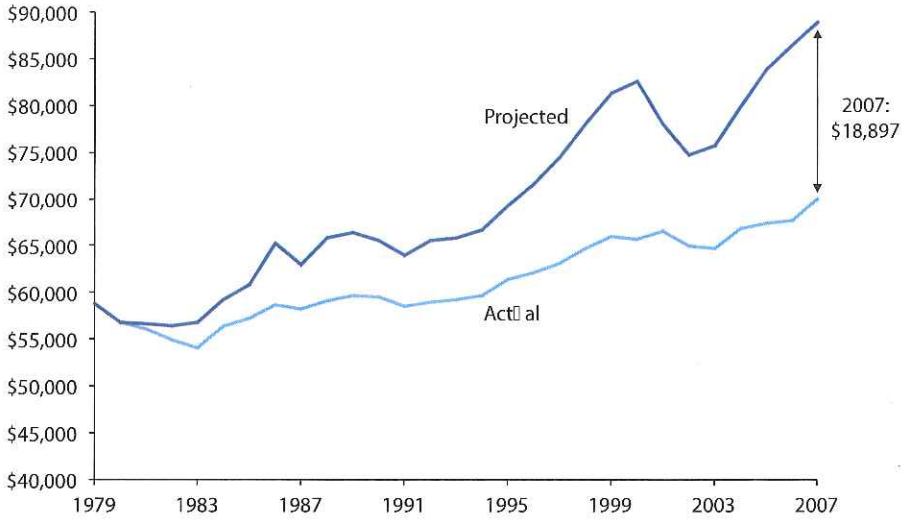
Fig□ re 1J Average family income growth, by income group, 1947□ 2007



Note: Data are for money income.

Source: Authors□ analysis of Current Population Survey Annual Social and Economic Supplement *His□orical Income Tables* (Tables F-2, F-3, and F-5)

Fig□ re 1K Income of middle-fifth households, actual and projected assuming growth equal to growth rate of overall average household income, 1979□ 2007



Note: Data are for comprehensive income.

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

compares actual middle-fifth household income growth with middle-fifth income growth had it grown at the same rate as overall average household income between 1979 and 2007. Had middle-fifth income grown at the same rate as overall average household income over this period, it would have been $18,897 higher in 2007—27.0 percent higher than it actually was.

Essentially, rising inequality imposed a tax of 27.0 percent on middle-fifth household incomes over this period. It is important to note that this drain on disposable household income is exponentially greater than the reductions posed by many policy matters that generate great heat among policymakers and economic commentators for allegedly overburdening households, such as the gross costs of regulations, the efficiency costs of progressive tax-and-transfer policy, the long-run costs of chronic budget deficits, or the burden that would stem from immediately fixing Social Security's 75-year financing shortfall with *only* an increase in the payroll tax. Policymakers who express rhetorical concern about American households' disposable incomes should pay much more attention to this 27 percent "inequality tax" on the households in the middle fifth of the income distribution. This inequality tax exceeds these households' effective federal income tax rate (3.3 percent) *by roughly eight times*. Even including the much larger (and less progressive) payroll tax (as well as the corporate income tax and excise tax), the federal tax bill for the middle fifth of households, 14.3 percent, is just over half the size of the inequality tax imposed on these households over recent decades.

Wage inequality and the break between wages and productivity

As is documented in Chapter 2, the divergence of market-based incomes that drove rising *overall* income inequality occurred because both labor incomes (wages) and capital-based incomes (profits, rents, and interest payments) became increasingly concentrated at the top, and because a growing share of overall incomes accrued to owners of capital rather than to workers (a trend expressed as the "shift from labor incomes to capital incomes").

Because wages are by far the dominant source of income for low- and middle-income households, it is important to examine trends in worker pay in the 1979–2007 era of rising inequality. **Table 1.2** provides data on some of these trends. The key finding is that between 1979 and 2007, growth in worker hourly wages at the 10th percentile and the median lagged overall productivity growth significantly. Worker hourly wages at the 10th percentile were essentially flat, while median wages grew about 0.3 percent each year in this 28-year period. In contrast, productivity, a measure of how much output is generated by the economy in each hour of work, grew by 1.7 percent annually.

The wedges between productivity growth and typical workers' pay are examined in great detail in Chapter 4. For example, Table 4.23 shows that roughly

Table 1.2 Key labor market indicators and living-standards benchmarks, 1979–2011 (2011 dollars)

	Payroll employment	Unemployment rate	Labor force participation rate	Working-age employment-to-population ratio	Median household income*	Working-age median family income*	Worker hourly wages: 10th percentile	Worker hourly wages: Median	Worker hourly wages: 95th percentile	Total economy productivity
1979	89,932	5.8	63.7	74.6	$47,535	$58,659	$8.53	$15.21	$36.28	$36.03
1989	108,014	5.3	66.5	79.9	50,633	62,048	7.29	15.12	38.99	40.98
1995	117,298	5.6	66.6	79.8	49,944	61,621	7.42	14.84	41.09	44.21
2000	131,785	4.0	67.1	81.5	54,851	69,233	8.24	15.99	45.44	49.62
2007	137,598	4.6	66.0	79.9	54,499	68,893	8.45	16.40	49.39	57.22
2011	131,359	8.9	64.1	75.1	51,014**	63,967**	8.16	16.07	49.74	60.83
Change*										
1979–1989	1.8	-0.5 pp.	2.8 pp.	5.3 pp.	0.6	0.6	-1.6	-0.1	0.7	1.3
1989–1995	1.4	0.3	0.1	-0.1	-0.2	-0.1	0.3	-0.3	0.9	1.3
1979–1995	1.7	-0.2	2.9	5.2	0.3	0.3	-0.9	-0.2	0.8	1.3
1995–2000	2.4	-1.6	0.5	1.7	1.9	2.4	2.1	1.5	2.0	2.3
2000–2007	0.6	0.6	-1.1	-1.6	-0.1	-0.1	0.4	0.4	1.2	2.1
1979–2007	1.5	-1.2	2.3	5.3	0.5	0.6	0.0	0.3	1.1	1.7
2000–2011	0.0	4.9	-3.0	-6.4	-0.7**	-0.8**	-0.1	0.0	0.8	1.9

* Data are for money income.
** Data are for 2010 (top panel) and 2000–2010 (bottom panel) due to data limitations.
*** Percent change numbers are annualized rates; percentage-point change numbers are cumulative change.

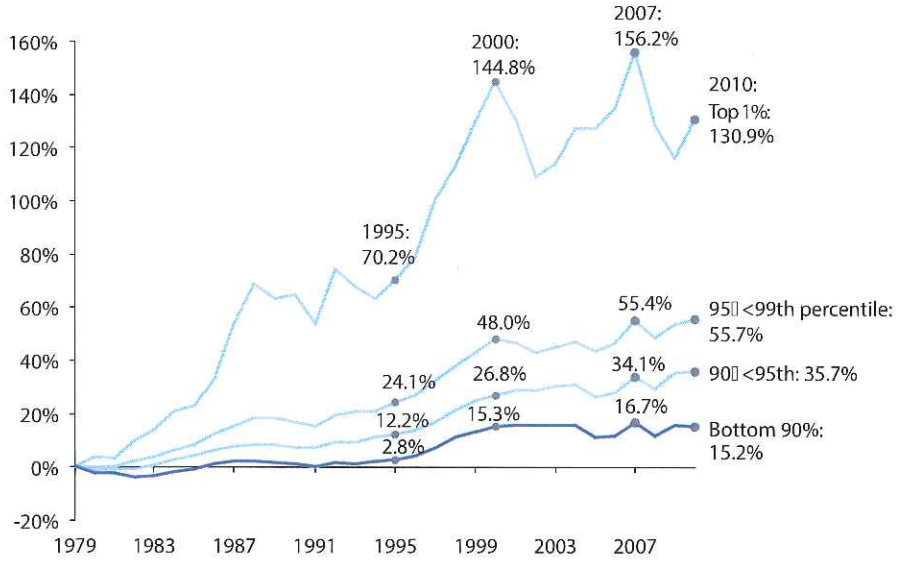
Source: Authors' analysis of Current Population Survey (CPS) public data series, CPS ASEC microdata and *Historical Income Tables* (Table H-5), CPS-ORG microdata, BLS Current Employment Statistics, and unpublished Total Economy Productivity data from BLS Labor Productivity and Costs program

half of the gap between productivity and median hourly pay (which includes nonwage compensation) from 1973 to 2011 can be explained by rising inequality *within* compensation (i.e., concentration within labor incomes, as mentioned previously), and roughly another fifth can be explained by the shift from labor incomes to capital incomes. In other words, rising economic inequality can explain about two-thirds of this failure of typical workers' pay to keep pace with overall economic growth, as measured by productivity.

Inequality within the wage distribution is shown in **Figure 1L**, which shows growth rates since 1979 at various points in the wage distribution. Between 1979 and 2007, real annual wages for the bottom 90 percent of wage earners grew 16.7 percent (which translates to a 0.6 percent annual growth rate), while wages for the top 1 percent grew 156.2 percent (or 3.4 percent annually). In short, the rise of inequality within wages has been extreme, and has put a very large wedge between typical workers' pay and productivity growth.

Because American households added so many more hours to the paid labor force between 1979 and 2007 and because the later 1990s provided a welcome period of strong across-the-board wage growth, the full extent of the wage disaster

Fig□ re 1L Cumulative change in real annual wages, by wage group, 1979□2010



Note: Data are for individual wage earners. Trend lines show cumulative percent change since 1979.

Source: Authors□ analysis of Kopczuk, Saez, and Song (2010) and Social Security Administration wage statistics

for the majority of American workers for *most* of the years between 1979 and 2007 has often been underappreciated. Between 1979 and 1995, for example, hourly wages at the 10th percentile and the median fell at average annual rates of 0.9 percent and 0.2 percent, respectively (shown in Table 1.2). (Undoubtedly, Americans started working more paid hours beginning in 1979 in part as a coping strategy to ensure some income growth despite poor wage performance.) And as noted later in this discussion, once the momentum of the late 1990s wage boom faded, both median and 10th-percentile wages fell for even most years during the economic expansion of the 2000s.

This long-term wage disaster should be a more pressing focus of policy. Rapid and stable growth in living standards for low- and middle-income Americans will only happen if wages and benefits grow in line with overall productivity. This did not happen for most years in the three decades before the Great Recession. And as we note in more detail in the conclusion of this chapter, the failure of wages to match productivity growth was a predictable consequence of many policy choices.

For a while, households compensated for wage stagnation with other ways to generate income and consumption growth, including, as noted earlier, by working more paid hours and, especially in the 2000s, taking on debt. There are obvious limits and downsides to these coping strategies, and their use does not let policymakers off the hook. Though less immediately solvable than the current jobs crisis, the sluggish growth in hourly wages and their resulting diminishing capacity to drive income and consumption growth is an important challenge for policy going forward.

The atypical period of strong income and wage growth in the late 1990s offers some suggestions on ways to enable wage growth.

Strong income and wage growth in the atypical last half of the 1990s

The U.S. economy from the mid-1990s through the early 2000s delivered a brief respite from the wage (and consequently income) trends just described. Median hourly wages rose at an average annual rate of 1.5 percent between 1995 and 2000, after contracting 0.2 percent annually between 1979 and 1995 (Table 1.2). Hourly wage growth also accelerated at the 95th percentile (from 0.8 percent annually in 1979–1995 to 2.0 percent annually in 1995–2000) and at the 10th percentile (from falling 0.9 percent annually in 1979–1995 to rising 2.1 percent annually in 1995–2000).

In short, the late 1990s boom delivered both faster and more broad-based wage growth. And this faster wage growth, in turn, drove faster growth in incomes for typical American households. Median household incomes rose by 1.9 percent annually between 1995 and 2000, a rate more than six times as fast as the 0.3 percent average annual growth rate between 1979 and 1995 (as shown in Table 1.2).

Further, during the late 1990s it was hourly wage growth, and not just growth in hours worked, that provided the bulk of annual earnings gains (as we document in Chapter 2). The contrast between wage and income growth in late 1990s and in the broader periods of stagnation that preceded and followed it provides a useful preview of some of our findings on the role of economic policy in driving economic outcomes. In particular, this period affirms the importance of tight labor markets and increases in the minimum wage for producing acceptable wage and income growth.

Labor markets in the late 1990s were tighter than they had been for decades, in part because Alan Greenspan and the Federal Reserve broke with a key piece of economic orthodoxy in place since the inflation of the 1970s: that the "natural" or "non-accelerating inflation rate of unemployment" (the NAIRU) was well above 5 percent (or even 6 percent), and that a responsible Federal Reserve should set its policy interest rates at levels that would keep the economy from reaching unemployment rates below these, as too-low unemployment rates would spur inflation. In the late 1990s, Greenspan and the Federal Reserve admirably engaged in some pragmatic heterodoxy on the NAIRU—deciding to not raise rates until *actual* (rather than incipient) inflation appeared. They were encouraged in this stance by exogenous world events, such as currency and financial crises in Asia, Brazil, and Russia, that strongly demanded accommodative interest rates to keep world capital markets healthy.

This heterodoxy was well-rewarded. Unemployment fell far below officially sanctioned estimates of the NAIRU; in 2000, it actually fell below 4 percent for some months. These historically low unemployment rates assured jobs for millions of Americans who would not have had them had official NAIRU estimates strictly guided policy. And no jump in inflation occurred. In fact, what ended the late 1990s boom was not runaway inflation that demanded a monetary policy contraction, but the bursting of the stock market bubble in 2001. This is important to note, because many (including us) would argue that while the *sources* of the tight labor markets of the 1990s were unsustainable (very rapid growth in consumer spending and investment, both driven by a stock market bubble concentrated in information and communications technology), very low rates of unemployment and tight labor markets are not *in and of themselves* unsustainable. It is important to be clear that the late 1990s offered no evidence that there is a threshold unemployment rate (say, 5 percent) below which the economy cannot fall without suffering dire consequences. Instead, the lesson of this period is simply that tight labor markets are indeed sustainable, but they should be driven by stronger fundamentals than stock market bubbles.

A similarly useful break with economic orthodoxy occurred when Congress enacted federal minimum-wage increases. These increases, in 1996 and 1997, together raised the real value of the minimum wage by nearly 20 percent, though it remained substantially below its historic high. As shown in Table 1.2, these

increases in a key labor standard boosted wages at the bottom end of the wage distribution (particularly wages of women, as covered in Chapter 4). And many measures of "bottom-tail" inequality (or how much low-wage earners' growth lagged that of other groups) stabilized or even declined slightly following the increase. Importantly, these salutary wage effects were not accompanied by any discernible downward pressure on employment growth—either at the aggregate level or within smaller labor markets more directly affected by minimum-wage increases.

Economic mobility has neither caused nor cured the damage done by rising inequality

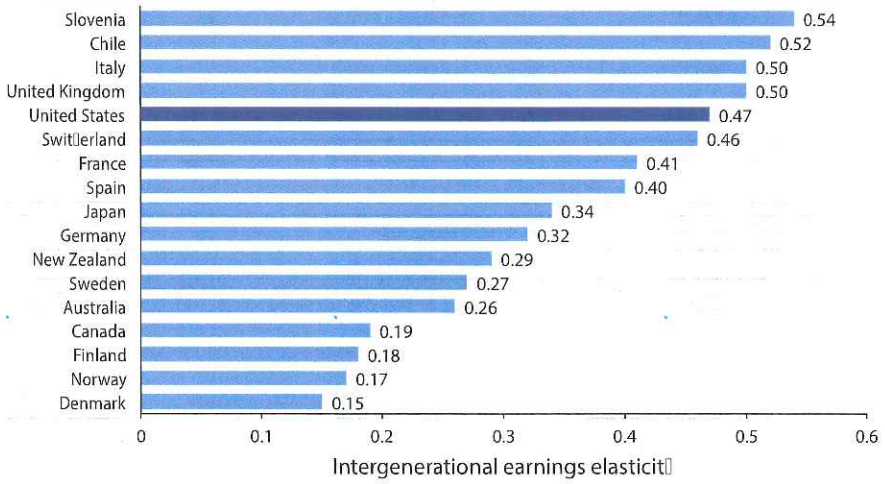
The debate over the extent, causes, and implications of rising economic inequality has raged for decades. A recurring argument from those seeking to minimize the implications of rising inequality is that the American economy provides tremendous opportunities for economic mobility, i.e., to change one's economic position. So, even if there is large measured inequality of economic outcomes at any *single point in time*, inequality of economic outcomes throughout lifetimes and across generations is likely greatly reduced, they argue. Further, they say, although inequality in recent decades has grown much faster in the United States than in its advanced-country peers, this rise in American inequality is compensated for (or possibly even driven by) the much greater opportunities for crossing class lines in the American economy.

These claims about the importance of mobility in either generating or ameliorating the sharp increase in "point-in-time" inequality are simply incorrect. While an outlier in the extent of inequality growth (inequality has risen much faster in the United States than in peer countries in recent decades), the United States is *not* an outlier in the economic mobility it provides people over their lifetimes and across generations; it is, if anything, *below average* in this regard when compared with peer countries.

Figure 1M charts correlations between the earnings of fathers and sons—an "intergenerational elasticity" measure that increases as mobility declines—in 17 OECD countries. As the figure shows, the United States has the fifth-lowest economic mobility of the 17 countries examined, ahead only of Slovenia, Chile, Italy, and the United Kingdom.

Further, there has been no substantial increase in mobility to counteract the sharp rise in inequality since 1979 in the United States. **Figure 1N** displays data on the correlation between parental income and sons' earnings in selected years between 1950 and 2000. This measure also rises as mobility declines. This intergenerational correlation declined in the decades between 1950 and 1980 but increased steadily thereafter.

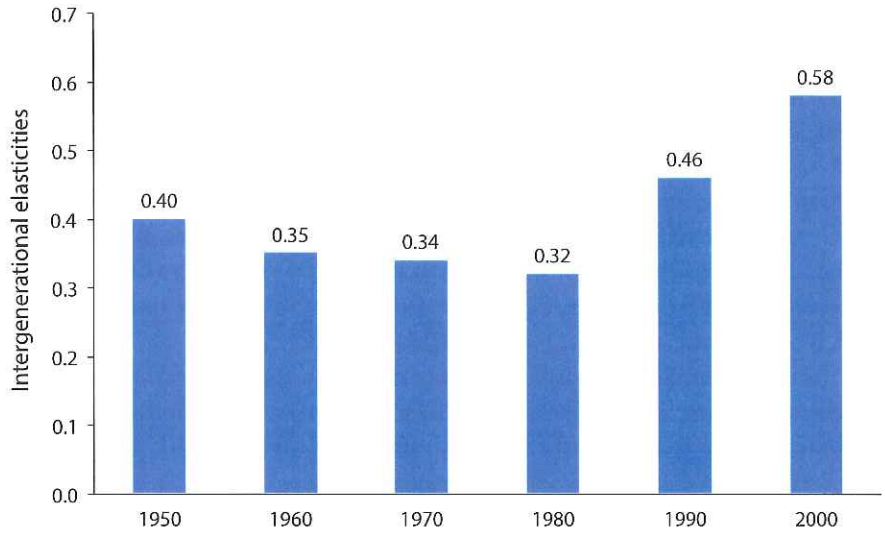
Fig□ re 1M Intergenerational correlations bet□ een the earnings of fathers and sons in OECD countries



Note: The higher the intergenerational elasticit□, the lower the extent of mobilit□.

Source: Adapted from Corak (2011, Figure 1)

Figure 1N Elasticities between parental income and sons□ earnings, 1950–2000



Note: The higher the intergenerational elasticity (IGE), the lower the extent of mobility. The IGEs shown are for 40- to 44-year-old sons.

Source: Authors□ analysis of Aaronson and Mazumder (2007, Table 1)

While some other measures of economic mobility show a less clear-cut pattern, the preponderance of evidence suggests that mobility has likely declined in recent decades and clearly has not significantly increased, and it has certainly not increased enough to neutralize the steep rise in inequality over the last three decades.

Today's private economy: Not performing for middle-income Americans

Almost universally, researchers acknowledge growing economic inequality as a fact of American economic history in recent decades. Recently, however, a number of "revisionist" studies have claimed that middle-income families have managed to carve out acceptable rates of living-standards growth despite this large rise in inequality.

These studies tend to focus on family or household incomes, not just hourly wages, as incomes for households or families can be boosted simply by adding more hours to the paid labor force. Further, these revisionist studies argue that more "comprehensive" measures of income that include benefits from employers and government transfers show a much healthier rate of growth in middle-income households' living standards than would be surmised looking only at measures of "money income."

Middle-income growth lags average income growth and historical income growth rates

It is true that incomes of households in the middle of the income distribution have grown faster when measured by the data on "comprehensive" incomes than when measured by the strict "money" incomes available in more-conventional data sources. A core finding of the revisionist literature is that comprehensive income for the middle fifth of households rose by 19.1 percent between 1979 and 2007, as measured by data methods used by the CBO measures of household income. (Note that this rate of middle-fifth household income growth comes from unrounded CBO data, and thus differs from the 19.2 percent rate in Figure 1I, which comes from rounded, publicly available CBO data.)

But this cumulative growth rate does not mean that the private sector of the American economy is performing well for middle-income families. First, while this growth rate is sufficiently far from zero to qualify as "significant" or "rapid" for some observers, it is inadequate when measured against more meaningful benchmarks—such as what it would have been had it simply grown as fast as overall average incomes (which grew more than 50 percent over the same period, buoyed by the extraordinarily rapid growth at the top of the income scale, as was shown in Figure 1K). Second, this rate of middle-fifth income growth, which

translates to 0.6 percent annual growth, doesn't come close to our available measure of income growth from 1947 to 1979, when middle-fifth family income grew 2.4 percent annually (shown in Figure 1J earlier).

Third, the sources of this 19.1 percent growth of comprehensive incomes are not evidence that the private economy has delivered for American workers. They instead reflect the strength of the American social insurance programs—Social Security, Medicare, and Medicaid—as well as the impressive ability of American households to steadily increase their work hours (as well as climb the educational ladder over time). Fourth, the data on comprehensive incomes are technically flawed because they count, as income, rapidly rising health expenditures made on behalf of households by employers and the government without accounting for the excessive health care inflation that has absorbed large portions of the increase in this particular source of income.

Social insurance programs, not private sources, account for the majority of middle-fifth income growth

Government transfers (including unemployment insurance, food stamps, Temporary Assistance to Needy Families and, most relevant for middle-income households, Social Security, Medicare, and Medicaid) accounted for fully 53.6 percent of comprehensive-income growth of middle-fifth households between 1979 and 2007. Labor earnings, conversely, accounted for just 6.1 percent of this growth. A surprisingly large share of overall income growth for middle-income households—31.9 percent—was driven by rising pension incomes. This rise in pension incomes for the middle fifth is clearly a bright spot in the otherwise disappointing contribution of the private economy to middle-income living-standards growth between 1979 and 2007. However, pension incomes are highly unlikely to continue to contribute so much to household income growth for the middle fifth, given the steadily declining rates of pension coverage over the past three decades.

Growing shares of income are dedicated to holding families harmless against rising medical costs

Employer-sponsored health insurance benefits contributed roughly 12.5 percent to overall middle-fifth income growth between 1979 and 2007, and an even greater share—22.9 percent—between 2000 and 2007. But we believe the income growth stemming from these benefits is overstated because the overall price deflator that the CBO uses to measure the value of these employer-provided health benefits actually does not include employer-provided health insurance premiums in the "basket" of goods and services whose prices it tracks. Thus, it fails to reflect how cost inflation of these medical goods and services has risen much more rapidly than overall prices over the last three decades.

If these employer-sponsored health benefits are valued more appropriately with a medical cost deflator, then the value of these benefits to middle-income households actually *shrank* between 1979 and 2007, as rising health care inflation swamped the rise in nominal dollars spent by employers on health care benefits. This same logic applies to the value of health benefits provided through government transfers, predominantly Medicare and Medicaid. When deflated by a medical care price index, the value of these benefits rose less than a third as fast as indicated under an overall price index deflator. If all health benefits are deflated appropriately with the medical price deflator, then overall middle-fifth income growth between 1979 and 2007 was actually 6.3 percentage points lower than indicated by the raw CBO data—essentially knocking off a third of total income growth during that period.

Beyond the technical issue of price deflators, this discussion of health care benefits is important to keep in mind when evaluating how well the private American economy is working to generate living-standards growth for middle-income households. If a growing share of employee compensation and government transfers must be dedicated to holding these households harmless against health care inflation exceeding that in the United States' advanced-country peers, this cannot be counted as a success of the private American economy.

Households have to work more to achieve income gains

The small contribution (just 6.1 percent, as documented in Chapter 2) made by annual wages to overall income growth for the middle fifth of households in the income distribution should not be glossed over. Wages (and imputed taxes, which for the middle fifth are dominated by wage-linked payroll taxes) accounted for nearly two-thirds (65.8 percent) of overall income earned by households in this group in 2007, so the very small contribution to growth made by this income source over time is startling.

Part of this very small contribution is explained by the fact that elderly households (who have much lower annual wages) grew as a share of the middle fifth, rising from 15.2 percent in 1979 to 22.1 percent in 2007. Yet even looking strictly at the annual earnings growth of working-age households provides little reason to believe that this compositional change is hiding a happy story about the labor market and middle-income households. This is because changes in work hours have been substantial, and have been responsible for the large majority of overall increases in annual wage earnings. For example, working-age households worked an average of 222 more hours in 2007 than in 1979.

As documented in Table 2.17 in Chapter 2, between 1979 and 2007, average annual wages for working-age households in the middle fifth rose by just 12.0 percent over the entire 28 years. Of this 12.0 percent growth, 85.9 percent was accounted for by rising hours worked by these households. Further, more than 90 percent of the

growth in average annual wages over this 28-year period was concentrated between 1995 and 2000. If one removed the influence of these five years, then annual wages for the middle fifth would have risen by only 1.1 percent over the entire 28 years, and this would have been the net result of hours rising by more than 8 percent while hourly pay fell.

Assessing what the private economy is really delivering to middle-income Americans

Table 1.3 summarizes the effects of the influences just described on the trajectory of middle-fifth household income growth. The first row shows growth in comprehensive income, as documented by the CBO. The next row shows this same growth, but with both employer-provided health benefits and Medicare/Medicaid benefits deflated with a health-specific deflator. This change alone reduces the income growth in 1979–2007 from 19.1 percent to 12.7 percent. The next row keeps employer-provided health benefits deflated by health-specific deflators, but strips out all growth in government cash transfers as well as Medicare and Medicaid. This change further reduces the growth of middle-fifth household income in 1979–2007 from 12.7 percent to just 5.9 percent. The next row subtracts the effect of growing hours of paid work in the middle fifth, which brings the cumulative growth figure down to 4.9 percent.

By stripping out those elements adding to measured income growth that cannot be attributed to the private U.S. economy generating decent outcomes, we

Table 1.3 Middle-fifth household income, minus selected key sources, 1979–2007

	1979	1989	1995	2000	2007	1979–2007
Comprehensive household income	$58,751	$59,724	$61,334	$65,637	$69,949	19.1
With health care deflated properly	58,751*	58,685	59,025	63,151	66,234	12.7
Without cumulative contributions of:						
Government transfers	$58,751*	$57,166	$56,071	$60,049	$62,209	5.9
Hours worked	58,751*	60,678	60,050	61,783	61,623	4.9
Pensions	58,751*	59,233	57,654	58,363	58,050	-1.2

* Data are held at 1979 levels to compute change from 1979 to 2007.
Note: Data are for comprehensive income and include employer-sponsored health insurance.

Source: Authors' analysis of Congressional Budget Office (2010a and 2010b), Current Population Survey Annual Social and Economic Supplement microdata, and Bureau of Labor Statistics Consumer Price Indices database

provide a clearer assessment of how well the private economy is delivering for middle-income Americans. And a cumulative growth rate of 4.9 percent across 28 years offers little to brag about. Again, whether it is government transfers, rapidly rising health care prices, or the tenacity of American earners in working longer hours (even while becoming a more educated and experienced workforce), none of these influences seems to provide any obvious evidence that the private economy is working well for these middle-income families. The last row strips out the influence of rising pension income, which actually pushes overall comprehensive income growth for the middle fifth of households over the entire 1979 to 2007 period negative. While pension incomes are mostly privately generated income, trends in pension coverage (documented later in this introduction and in later chapters) suggest rising pension incomes will not boost middle-fifth incomes substantially in coming decades.

Today's economy: Different outcomes by race and gender

As this book, and our research in general, shows, there is actually no one economic "state of working America" but rather an America that is experienced differently, and often unequally—not only by class but by race and gender.

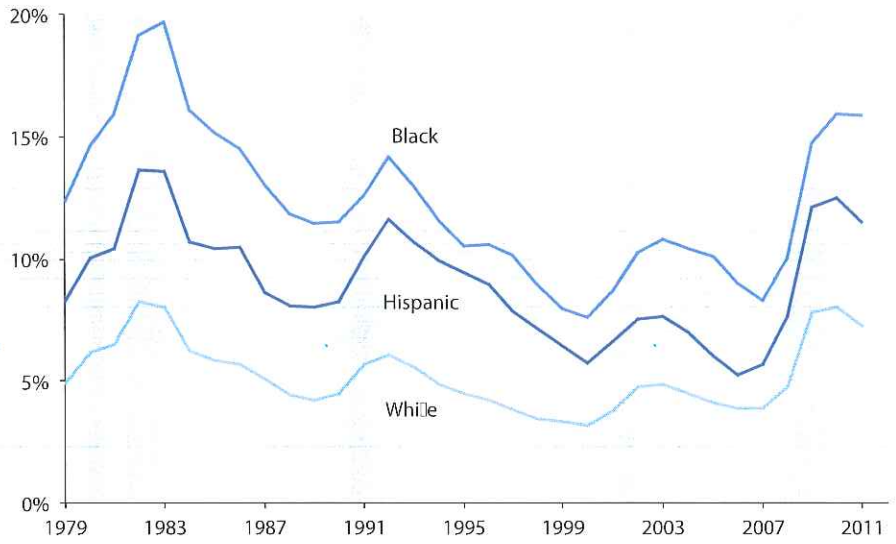
As with the differences by income group highlighted earlier, disparities by race are sometimes staggering.

Many more than just two Americas

Figure 1O illustrates an example that is particularly salient now. It compares the unemployment rates of whites, blacks, and Hispanics from 1979 to 2011. In this period, black and Hispanic unemployment always far exceeded white unemployment. It is telling to note that when the overall unemployment rate peaked at 10.0 percent in October 2009 and commentators rightly labeled it a national catastrophe demanding sustained attention from policymakers, it was still far below the *average* rate of African American unemployment across the entire post-1979 period: 12.2 percent. Likewise, when the annual white unemployment rate reached 8.0 percent in 2010, it was still below the 9.8 percent average rate of African American unemployment in the economic expansion and recovery preceding the Great Recession. These data support the claim that African Americans have essentially been living through a perpetual, slow-motion recession. As this book was nearing completion, in July 2012, the overall unemployment rate was 8.3 percent—roughly the same as the African American unemployment rate during all of 2007, the last full year of economic expansion before the Great Recession.

Again we note that adverse labor market trends cannot be blamed on workers' lack of skills. The ratio of the African American unemployment rate to the white

Figure 10 Unemployment rate, by race and ethnicity, 1979–2011



Note: Shaded areas denote recessions.

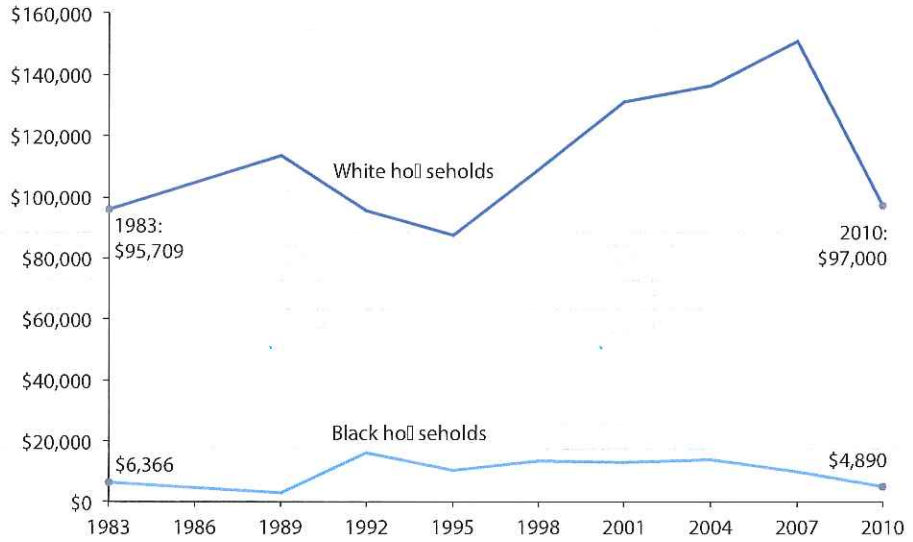
Source: Authors' analysis of basic monthly Current Population Survey microdata

unemployment rate is roughly the same for every educational category; for example, the unemployment rate of African American college graduates is roughly double that of white college graduates. Influences other than workers' own skills must be shaping labor market developments, and those influences deserve scrutiny.

Another staggering racial difference identified in *The State of Working America* is the ratio of median white household wealth to median black household wealth, displayed in **Figure 1P**. Even in 1992, the peak of black/white equality in wealth holdings, these differences were huge; median African American wealth was just 16.8 percent of median white wealth. By 2010—after the housing bubble had burst and destroyed $7 trillion in equity in residential real estate (the most widely held type of wealth)—median African American wealth was just 5.0 percent of median white wealth.

Racial economic disparities also appear in the provision of social insurance by private employers. The United States is unique among advanced nations in tying much of this social insurance, particularly health insurance and pensions for retirement income, to the employment relationship. While this part of the American social compact has frayed in recent decades, as employers withdrew an increasing share of these valuable worker benefits, these benefits were never

Fig□ re 1P Median wealth by race, 1983□ 2010



Source: Authors□ analysis of Wolff (2012)

near-universal, and their unraveling is occurring at vastly different rates depending on population group.

Table 1.4 shows the incidence of employer-sponsored pension and health insurance coverage by race and ethnicity for business cycle peak years between 1979 and 2007, and for 2010. Health insurance and pension coverage rates of whites were higher than rates of blacks and Hispanics in each year shown. Coverage rates of Hispanics were lowest. In fact, in most of the years observed there was a roughly 2-to-1 difference in pension coverage rates of white workers relative to Hispanic workers, even in 2007. Further, there was no movement toward equality in employer-provided health or pension benefits from 1979 to 2010: Ratios of white-to-black and white-to-Hispanic pension and health coverage rates either held steady or actually increased over this period. Worst of all, while relative rates did not change much, absolute pension and health coverage rates declined steadily among all racial groups.

Male and female America

Disparities in employer-provided health and pension benefits also appear between genders. **Table 1.5** shows the change in employer-provided health and pension coverage for men and women. Encouragingly, perhaps, it shows that gender gaps in both pension and health coverage narrowed, quite rapidly in pensions, between

Table 1.4 Employer-provided health insurance and pension coverage, by race and ethnicity, 1979–2010

	1979	1989	1995	2000	2007	2010	Change 1979–2010
Pension coverage							
White	52.2	46.1	49.5	53.7	50.3	48.2	-3.9
Black	45.8	40.7	42.6	41.3	39.1	37.7	-8.1
Hispanic	38.2	26.3	24.7	27.5	24.8	23.9	-14.3
Health insurance coverage							
White	70.3	64.0	61.7	62.7	59.6	57.8	-12.5
Black	63.1	56.3	53.0	55.4	52.4	49.5	-13.6
Hispanic	60.4	46.0	42.1	41.8	37.3	36.3	-24.1

Note: Data are for private-sector wage and salary workers age 18–64 who worked at least 20 hours per week and 26 weeks per year.

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

Table 1.5 Employer-provided health insurance and pension coverage, by gender, 1979–2010

	1979	1989	1995	2000	2007	2010	Change 1979–2010
Pension coverage							
Men	56.9	46.9	48.6	50.3	45.4	43.6	-13.3
Women	41.3	39.6	42.5	45.8	43.6	41.9	0.6
Health insurance coverage							
Men	75.4	66.8	62.6	63.2	58.4	55.8	-19.6
Women	59.4	54.9	53.3	53.6	51.8	49.9	-9.5

Note: Data are for private-sector wage and salary workers age 18–64 who worked at least 20 hours per week and 26 weeks per year.

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

1979 and 2010. Less encouragingly, these gaps shrank predominantly because men *lost* coverage rather than because women gained coverage; women experienced large reductions in health coverage and very slight increases in pension

coverage over the period examined, while men experienced even larger reductions in health coverage and substantial losses in pension coverage.

Similarly, the gap between the median hourly wage of men and that of women has been more than halved since 1973. In 2011, the median hourly wage of women was 84.0 percent of the median hourly wage of men, up from 63.1 percent in 1973. But this rapid narrowing of the gender wage gap occurred mostly due to a steady fall in the male median wage during the 1980s and early 1990s (but also because of steady modest growth of the female median wage). However, in 2011 a female college graduate earned $24.31 an hour, $7.50, or about 24 percent, less than a male college graduate that same year ($31.81)—and roughly $3.00, or 11 percent, less than a male college graduate earned in 1979 ($27.29), more than 30 years ago.

No one 'American economy'

These disparities in economic outcomes by race, ethnicity, and gender teach us a valuable lesson about the "American economy": There is no one "American economy." While headline numbers on economic performance—such as gross domestic product, average income, and productivity—provide information about many important issues, on the most salient question about the American economy—"How well is it working to provide most American households with acceptable growth in living standards?"—these top-line numbers are either insufficient or even misleading. While disparities by race, ethnicity, and gender are often easily recognized by even casual observers of economic developments, very large (and obviously interrelated) disparities also exist by economic class. For example, productivity growth, one of the most-followed economic statistics, was nearly identical in two periods: 1995–2000 and 2001–2006. Yet performance of key indicators of living standards growth for typical American households, such as hourly wage growth and household income, was much stronger during the earlier period. This insight, that one must dig deeply into data to answer what seem like basic questions about the performance of the American economy, is the driving motivation behind *The State of Working America.*

Conclusion: The struggling state of working America is policy-driven

As noted in past editions, *The State of Working America* is a work of data analysis, not a policy manifesto. Yet it is data analysis that we seriously hope helps to propel policy changes that improve the economic prospects of all Americans. Other publications by the authors identify a range of policy actions called for by the trends captured in the book. Here we briefly sketch out what the data suggest about the

fingerprints of policy—both policy commission and omission—on the trajectory of economic outcomes in recent decades. Our criticism of policy failures does not constitute a rejection of public-sector intervention in the private economy. Instead we criticize the way in which the instruments of economic policy are often seized by corporate interests and already-wealthy individuals to direct more economic rewards their way.

The most fundamental lesson is that the generally dismal performance of wages and incomes of low- to middle-income workers and households cannot be chalked up to large, disembodied forces like "technological change." The implied claim of those who attribute rising inequality to such bloodless factors is twofold. First, it suggests that little can be done to change the status quo pattern of economic rewards flowing to the top. Second, it argues that the skewed distribution of income growth is simply a side effect of well-functioning markets, labor markets in particular, which leaves the task of addressing inequity solely to government tax-and-transfer policy changes.

This perspective is clearly wrong: Policy changes drive economic outcomes, and there's nothing to suggest that the U.S. private economy, particularly the U.S. labor market, functions so well and fairly that it should never be tampered with.

For example, the evidence in Chapter 4 argues strongly that labor-market institutions such as unions and the minimum wage increase the bargaining power of low- and middle-income workers, raising their pay and economic security without unduly impairing labor-market efficiency.

As explained in Chapter 4, unions reduce wage inequalities because they raise wages more at the bottom and in the middle of the wage scale than at the top. Unions also improve pay and working conditions for the broader workforce as union compensation norms and workplace practices become more generalized throughout the economy (indeed, many fringe benefits, such as pensions and health insurance, were first provided in the union sector). According to one study that captured both these direct and indirect effects, declining unionization accounted for about a third of the growth of male wage inequality and a fifth of the growth of female wage inequality between 1973 and 2007. Further, unions provide a political check on excessive managerial pay. These findings and many others suggest that anything that reduces the power and reach of unions in the U.S. economy will increase wage and income inequality. Given this, policy maneuvers aimed at checking or even rolling back the reach of unions (such as those employed by powerful political movements against state public employee unions in Wisconsin, Ohio, and other states in 2011 and 2012) could have powerful, negative effects on economic outcomes.

Chapter 4 also reviews what happened when the failure to increase the federally legislated minimum wage in the 1980s allowed rising inflation to shave 30 percent off its real value: a severe drop in wages of low-wage women, who are the chief beneficiaries of the legislated minimum. Increases in the minimum wage in the early and late 1990s largely halted this erosion. Yet despite further increases by

2009, the real minimum wage in 2011was about 20 percent lower than in 1968, meaning low-wage workers, despite being older and better-educated than in the late 1960s, had a lower wage floor.

Other examples of policy changes that have directed more resources toward the top end of the income and wage distributions include the combination of sharply lower maximum marginal tax rates and the deregulation of the financial sector in the decades preceding the Great Recession. Congress deregulated the activities allowed by the financial sector but did not withdraw the explicit and implicit government guarantees that support financial institutions, such as federal deposit insurance and the implicit guarantee of the debt of Fannie Mae and Freddie Mac. It seems to us that financial deregulation provided the *opportunity* for well-placed actors in finance to get paid large amounts of money to hide risks they should have been managing, while declining tax rates on high incomes provided a strong *motive* for them to do so. To put it bluntly, the returns to rule-rigging (or even outright rule-breaking) are made much larger when your marginal tax rate is halved. As noted in Chapter 4, a distinct aspect of rising inequality in the United States is the wage gap between wage earners in the top 1.0 percent (and top 0.1 percent) and other earners, and a key driver of wage growth of this top tier is the increased size and high pay of the financial sector.

Policies choose sides. Which economic agents should be shielded from the pressures of globalization, and which should be left exposed? Which interests should be prioritized in the policymaking targets of the Federal Reserve? Whose voice should be heeded in debates related to corporate governance? In these cases and many more, policy in the last three decades has tilted toward corporate interests and what is best for the already-affluent—the segments of society that have done well while most Americans' incomes and wages have lagged.

Behind this realization lies an important point: The chain of causality runs *from* such dysfunctional policy choices *to* disappointing outcomes experienced by most American individuals and households. This may seem obvious, especially in the aftermath of the Great Recession. But the prevailing orthodoxy in both economics and policymaking circles assigns responsibility for sluggish living standards growth and rising inequality to the workers and households experiencing them. According to this belief, it is not policy failure, but instead a failure of initiative, skills, or cultural values on the part of workers themselves that prevents them from sharing in the fruits of economic growth.

This orthodoxy should surely not survive the Great Recession. Between December 2007 and February 2010, the U.S. economy shed 8.7 million jobs. American workers didn't lose their skills or initiative or decide to take a mass vacation during this time. Instead, they were failed by policymakers acting on behalf of the interests of the wealthy and against the interests of average Americans. Policymakers who did not rein in the obvious-in-real-time housing bubble while it was inflating, largely because doing so would have meant imposing regulatory

limits on the powerful financial sector. Policymakers who were complacent about (or even complicit in) stagnating hourly wages in the years leading up to the Great Recession, even as households and families boosted borrowing and increased their overall economic fragility in part to compensate for these stagnant wages. Then, when the bubble burst, policymakers who were willing to put as much money on the line as was needed to make incumbent actors in the financial sector whole, but were not willing to put as much money on the line as was needed to fully restore health to the labor market where the vast majority of Americans secure their livelihoods.

This relationship between policy and outcomes, so clear in the slide toward the Great Recession, is also behind much of the United States' post-1979 economic history. Many valuable economic policy institutions established before this period—the social insurance programs such as Social Security, Medicare, Medicaid, and unemployment insurance—have actually been a primary and rare source of strength in bolstering economic security for low- and middle-income households. Yet these same programs have often weathered political attack from those who do not prioritize living-standards growth at the low and middle segments of the income scale. At the same time, in decision after decision in the post-1979 period, policy changes were made that nearly all economic analysts agreed would predictably increase economic inequality—and this is exactly what happened. Yet these changes did not spur any boost in overall growth to compensate for the rise in inequality. While other publications by the authors of this book lay out these policies and better alternatives, we close our discussion here with a proven policy equal to the challenges we face and relevant to today's economic situation.

The policy good for everybody in the fractured U.S. economy: Ensuring rapid recovery to full employment

As noted, the trends identified in this book reveal many disparate "American economies," divided by economic status, gender, race, ethnicity, and other factors. It might seem impossible to find policies that can benefit them all. But it is not. A key finding that emerges again and again throughout our investigation of American living standards is that tight labor markets provide large benefits across-the-board to American households, while high rates of unemployment are nearly universally damaging. Tight labor markets lead to both faster growth and growth rates that are more uniform up and down the wage and income scale.

The power of tight labor markets to spur broadly shared growth can be seen in the period of low unemployment in the late 1990s. While American family incomes posted impressive gains across-the-board, incomes of African American families grew even more rapidly. In fact, median African American family-income growth was greater during the late 1990s than it was during the height of the Civil Rights revolution.

This relationship between labor markets and outcomes also applies to poverty rates. While rising inequality contributed greatly to a sad delinking of overall U.S. economic growth and poverty reduction beginning in the 1970s, poverty is not—contrary to much discussion—utterly unmoved by larger economic trends. For example, the tight labor markets of the late 1990s were associated with a rapid reduction in the overall poverty rate, while elevated rates of unemployment in the 1980s led to a large increase in poverty rates. Even at full employment, pockets of poverty that remain should receive sustained, targeted policy attention.

These admittedly basic observations about the destructiveness of chronically high unemployment and the potential of tight labor markets to equalize living-standards growth and reduce poverty are particularly important as the American economy remains deeply depressed following the economic shock of the Great Recession.

And, as we noted earlier, today's pressing crisis of joblessness is economically solvable. Even more encouraging, there is no obvious powerful economic interest that benefits from the current, extraordinarily high unemployment rates. When the economy approaches full employment and wages for low- and middle-income workers look poised to rise, then some corporate interests may seek to slow growth to keep their labor costs, and overall inflation, in check. But now, with the unemployment rate still far above rates that prevailed in the quarter century before the Great Recession began, no group would seriously worry about runaway wages, and all would welcome the boost to bottom lines from more-rapid economic growth.

In short, the crisis of jobs brought on by the Great Recession and still-unfinished recovery should be solvable from both economic and political perspectives. And yet it lingers. Given this, it should not shock anyone wrestling with the evidence in this book that few policy changes have helped, and in fact most have hindered, low- and middle-income households for decades. It is past time for this to change.

Table and figure notes

Tables

Table 1.1. Key labor market indicators and living-standards benchmarks, 2000–2011. Underlying data are from the Current Population Survey (CPS) public data series; the CPS Annual Social and Economic Supplement microdata and *Historical Income Tables* Table H-5, "Race and Hispanic Origin of Householder–Households by Median and Mean Income: 1967 to 2010"; CPS Outgoing Rotation Group microdata (see Appendix B for details on CPS-ORG microdata); the Bureau of Labor Statistics Current Employment Statistics; and unpublished Total Economy Productivity data from the Bureau of Labor Statistics Labor Productivity and Costs program.

Table 1.2. Key labor market indicators and living-standards benchmarks, 1979–2011. See note for Table 1.1.

Table 1.3. Middle-fifth household income, minus selected key sources, 1979–2007. Underlying data for income, transfers, and pensions are from the Congressional Budget Office Web resource, *Average Federal Taxes by Income Group*, "Sources of Income for All Households, by Household Income Category, 1979 to 2007" [Excel spreadsheet] and unpublished data related to the resource. Underlying data for health care deflation are from the Bureau of Labor Statistics *Consumer Price Indexes* database. Underlying data for hours worked are from Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details on microdata. Income data are deflated using a health care deflator, and then the contributions of additional transfers, hours worked, and pensions since 1979 are taken out in sequence. Note that the unpublished CBO data are unrounded, and produce slightly different income dollar values and thus an income growth rate for the middle fifth (19.1 percent) that differs by .1 percentage point from the income growth rate from the rounded, publicly available CBO data underlying Figure 1I. Note that the "hours worked" increases in some periods because total earnings in the CBO data dropped *more* than hourly earnings in the CPS data (which is where the hourly earnings are measured from) over this period. This implies that hours dropped more than hourly earnings over this period in the CBO data. In other words, if you remove the effect of hours (i.e., leave only the effect of hourly earnings), total earnings will rise.

Table 1.4. Employer-provided health insurance and pension coverage, by race and ethnicity, 1979–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details.

Table 1.5. Employer-provided health insurance and pension coverage, by gender, 1979–2010. Underlying data are from Current Population Survey Annual Social and Economic Supplement microdata; see Appendix A for details.

Figures

Figure 1A. Payroll employment and the number of jobs needed to keep up with the growth in the potential labor force, Jan. 2000–Dec. 2011. Underlying data are from the Bureau of Labor Statistics Current Employment Statistics public data series and a 2012 Congressional Budget Office report, *The Budget and Economic Outlook*, Table 2-3, "Key Assumptions in the

CBO's Projection of Potential GDP." Since the CBO estimates of the size of the potential labor force are annual, the annual values are assigned to June of each year and extrapolated for the monthly figure.

Figure 1B. Home prices and their impact on residential investment and housing wealth, 1995–2011. Underlying data are from Case, Quigley, and Shiller (2005); Shiller (2012); Bureau of Economic Analysis National Income and Product Accounts, Table 1.1.5, "Gross Domestic Product"; and Federal Reserve Board, Flow of Funds Accounts of the United States. Home prices are indexed such that 1997=100, and residential investment and the wealth effect on consumption are relative to the 1997 average as a share of GDP.

Figure 1C. Employment-to-population ratio, age 25–54, 1995–2011. Underlying data are from the Current Population Survey public data series.

Figure 1D. Unemployment rate and real median-wage decline, 1991–2011. Underlying data for the unemployment rate are from the Current Population Survey public data series. The unemployment rate is lagged by one year in the figure. Underlying data for median wages are from CPS Outgoing Rotation Group microdata; see Appendix B for details.

Figure 1E. Change in real family income of the middle fifth, actual and predicted, 2000–2018. Underlying data are from the Current Population Survey public data series on unemployment and from CPS Annual Social and Economic Supplement *Historical Income Tables*, Table F-2, "Share of Aggregate Income Received by Each Fifth and Top 5 Percent of All Families, All Races: 1947– 2010"; Table F-3, "Mean Income Received by Each Fifth and Top 5 Percent of Families, All Races: 1966 to 2010"; and Table F-5, "Race and Hispanic Origin of Householder—Families by Median and Mean Income." Real family income is indexed such that 2000=100. The projections are based on a regression analysis, based roughly on Katz and Krueger (1999), that uses the annual change in inflation-adjusted income of families in the middle fifth of the money income distribution as the dependent variable and the level of unemployment as the independent variable. The projections then use the regression parameters to forecast annual changes in middle-fifth family income based on unemployment forecasts through 2018 that are made by the Congressional Budget Office and Moody's Economy.com, a division of Moody's Analytics.

Figure 1F. Cumulative change in total economy productivity and real hourly compensation of selected groups of workers, 1995–2011. Productivity data, which measure output per hour of the total economy, including private and public sectors, are from an unpublished series available from the Bureau of Labor Statistics Labor Productivity and Costs program on request. Wage measures are the annual data used to construct tables in Chapter 4: median hourly wages (at the 50th percentile) from Table 4.4 and hourly wages by education from Table 4.14. These are converted to hourly compensation by scaling by the real compensation/wage ratio from the Bureau of Economic Analysis National Income and Product Accounts (NIPA) data used in Table 4.2.

Figure 1G. Share of total household income growth attributable to various income groups, 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]. Each group's contribution to overall income

growth is calculated by multiplying the change in its average income from 1979 to 2007 by its share of the distribution (where, for example, the share of the distribution for the top 1 percent is .01), and dividing the result by the change in overall average income growth over the same time period. For pretax income calculations of the 90th–<95th percentile and 95th–<99th percentile, see Figure 2M notes.

Figure 1H. Share of average income growth accounted for by the top 5 percent and top 1 percent, by dataset and income concept, 1979–2007. Underlying data are from Piketty and Saez (2012, Table A-6); Congressional Budget Office, *Average Federal Taxes by Income Group*, "Sources of Income for All Households, by Household Income Category, 1979 to 2007" [Excel spreadsheet]; and Burkhauser, Larrimore, and Simon (2011), Table 4, "Quintile Income Growth by Business Cycle Using Each Income Series." Each income concept's contribution to overall income growth is calculated by multiplying the change in its average income from 1979 to 2007 by its share of the distribution (where, for example, the share of the distribution for the top 1 percent is .01) and dividing the result by the change in overall average income growth over the same time period.

Figure 1I. Change in real annual household income, by income group, 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]. Cumulative growth is calculated by dividing the average pretax income in the base year (1979) into average pretax income in each subsequent year (1980–2007). The data provide average pretax income for the bottom, second, middle, fourth, and top fifths, and for the top 10, 5, and 1 percent. For the 80th–<90th percentile, average pretax income is calculated by subtracting the aggregate income of the top 10 percent from aggregate income of the top fifth and dividing by the total number of households in the 80th–<90th percentile. Aggregate income is calculated by multiplying the number of households in each income group by average pretax income. The number of households is calculated by subtracting the number of households in the top 10 percent from the number of households in the top fifth. This same procedure is done between the top 10 percent and top 5 percent to calculate average pretax income for the 90th–<95th percentile and between the top 5 percent and top 1 percent to calculate the average pretax income for the 95th–<99th percentile. Data are inflated to 2011 dollars using the Consumer Price Index Research Series Using Current Methods (CPI-U-RS) and then indexed to 1979=0. Note that this publicly available CBO dataset is rounded, and produces slightly different income dollar values and thus an income growth rate for the middle fifth (19.2 percent) that differs by .1 percentage point from the income growth rate from the unpublished, unrounded CBO data underlying Table 1.3.

Figure 1J. Average family income growth, by income group, 1947–2007. Underlying data are from CPS Annual Social and Economic Supplement *Historical Income Tables*, Table F-2, "Share of Aggregate Income Received by Each Fifth and Top 5 Percent of All Families, 1947–2010"; Table F-3, "Mean Income Received by Each Fifth and Top 5 Percent of Families, All Races: 1966–2010"; and Table F-5, "Race and Hispanic Origin of Householder—Families by Median and Mean Income." Data are inflated to 2011 dollars using the CPI-U-RS.

Figure 1K. Income of middle-fifth households, actual and projected assuming growth equal to growth rate of overall average 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]. Data for

the middle fifth are shown as is and when applying the cumulative growth rate of the average income for all households.

Figure 1L. Cumulative change in real annual wages, by wage group, 1979–2010. Data taken from Kopczuk, Saez, and Song (2010), Table A-3. Data for 2006 through 2010 are extrapolated from 2004 data using changes in wage shares computed from Social Security Administration wage statistics (data for 2010 are at http://www.ssa.gov/cgi-bin/netcomp.cgi). The final results of the paper by Kopczuk, Saez, and Song printed in a journal used a more restrictive definition of wages so we employ the original definition, as recommended in private correspondence with Kopczuk. SSA provides data on share of total wages and employment in annual wage brackets such as for those earning between $95,000.00 and $99,999.99. We employ the midpoint of the bracket to compute total wage income in each bracket and sum all brackets. Our estimate of total wage income using this method replicates the total wage income presented by SSA with a difference of less than 0.1 percent. We used interpolation to derive cutoffs building from the bottom up to obtain the 0–90th percentile bracket and then estimate the remaining categories. This allows us to estimate the wage shares for upper wage groups. We use these wage shares computed for 2004 and later years to extend the Kopczuk, Saez, and Song series by adding the changes in share between 2004 and the relevant year to their series. To obtain absolute wage trends we used the SSA data on the total wage pool and employment and computed the real wage per worker (based on their share of wages and employment) in the different groups in 2011 dollars.

Figure 1M. Intergenerational correlations between the earnings of fathers and sons in OECD countries. The figure is adapted from Corak (2011), Figure 1, "Comparable Estimates of the Intergenerational Elasticity between Father and Son Earnings for the United States and Twenty Four Other Countries." "Earnings" refers to wages.

Figure 1N. Elasticities between parental income and sons' earnings, 1950–2000. Data are from Aaronson and Mazumder (2007), Table 1,"Estimates of the IGE Using Census IPUMS Data." Data reflect annual family income for the parents and annual earnings for the sons.

Figure 1O. Unemployment rate, by race and ethnicity, 1979–2011. Underlying data are basic monthly Current Population Survey microdata. As with 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 1P. Median wealth by race, 1983–2010. Underlying data are from the 2010 Survey of Consumer Finances (SCF) data prepared in 2012 by Edward Wolff for the Economic Policy Institute. The definition of wealth used in this analysis of the SCF is the same definition of wealth used in the analysis of the SCF conducted by Bricker et al. (2012), except that the Bricker et al. analysis includes vehicle wealth, while this analysis does not.