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INCOME INEQUALITY IN AMERICA

Fact and Fiction

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INCOME INEQUALITY IN AMERICA: Fact and Fiction

INTRODUCTION

Diana Furchtgott-Roth, e21 Director, Manhattan Institute

The presence of—and, in some countries, increase in—household income inequality has become a flash point in public policy and political discussion.

For Winston Churchill, such inequality was an unavoidable part of economic life in capitalist societies. "The main vice of capitalism," remarked the British Prime Minister, "is the uneven distribution of prosperity. The main vice of socialism is the even distribution of misery."

But for President Barack Obama, income equality is not only a pressing problem, it is "the defining challenge of our time." Against this backdrop, e21 brought together leading economists to provide a primer on ways to think about income inequality.

The extent of inequality differs with the measure used. An International Monetary Fund report published in February 2014, for instance, measures inequality using "market income"—defined as income before taxes on upper-income individuals are removed and transfers to lower-income individuals added back.

This pre-tax, pre-transfer measure of inequality is, however, misleading because it fails to properly measure well-being. Upper-income individuals cannot spend the money that is taken away in taxes, so it gives them no benefit (other than, perhaps, higher social status). On the other hand, lower-income individuals clearly benefit from more spending power with, among others, the

Supplemental Nutrition Assistance Program, Medicaid, housing vouchers, and unemployment insurance. As such, it would be inaccurate not to include the latter in measures of their well-being.

Demographics also affect inequality. Things like increasing life expectancy, greater likelihood of divorce, and the rising percentage of births to single mothers all affect the distribution of inequality. For example, every time two earners marry or divorce, the distribution of inequality is affected.

No less important in measuring inequality is the respective stage in the life cycle of different individuals. A graduate student, say, embarking on her career has no income, and probably some debt, but also a decent prospect of landing a job. If she marries another similarly-placed, penniless graduate student, they might, before long, transform into a two-income family located in the middle or upper income quintiles.

This is the natural life-cycle progression, and the graduate student's income should not be a social policy problem. Conversely, when the student retires after 50 years in a successful career, she might have assets but little income and return back, again, to the bottom quintile. This, likewise, is not a social policy problem in need of correction.

Lack of mobility between income groups *is* a policy problem, however, and we devote time in these pages to discussing it: has mobility indeed changed over time, and, if so, is it intra-generational or inter-generational?

Scott Winship begins this volume by observing, in **chapter 1**, that much of the current conventional wisdom on income inequality is not supported by academic research. In **chapter 2**, Bruce Meyer discusses the strengths and weaknesses of income and consumption data, showing that the living standards of the poor are, in fact, better captured by the latter—and that consumption inequality has risen less than income inequality.

Philip Armour follows, in **chapter 3**, by identifying several shortcomings of conventional measures of income concentration, providing evidence that when remedied, income concentration actually *fell* between 1989 and 2007.

In **chapter 4**, I describe how demographic changes affect income comparisons, showing that inequality in per capita expenditures between the top and bottom fifths has not grown in 25 years. In **chapter 5**, Gerald Auten uses IRS data to examine patterns of economic mobility, exploring movement over individuals' lifetimes, historical trends, and mobility into and out of, the top one percent.

In **chapter 6**, Scott Winship clarifies the distinction between absolute and relative economic mobility, arguing that absolute intergenerational mobility remains strong—and that relative mobility has changed less and may be closer to levels in other countries than widely believed. In **chapter 7**, James Sherk disproves the conventional wisdom that worker compensation has stagnated as productivity has increased.

And, in **chapter 8**, Edward Conard raises the radical effect technological innovations have had on income inequality, discussing the implications of this paradigm shift.

In compiling this volume, we hope to shed light on this important subject by debunking some of the popular myths about inequality.

CHAPTER I:
SHOULD WE CARE ABOUT RISING INCOME INEQUALITY?

Scott Winship, Manhattan Institute

Among commentators today, primarily on the left, there is a sense that President Obama put it mildly when he declared inequality "the defining challenge of our generation." Nobel Laureate Joseph Stiglitz has written that, "with inequality at its highest level since before the Depression, a robust recovery will be difficult in the short term, and the American dream — a good life in exchange for hard work — is slowly dying." New York Times columnist Paul Krugman—also a Nobelist—calls inequality "toxic." Economist Thomas Piketty, whose income concentration figures are ubiquitously cited, recently inveighed against tax cuts by saying they will:

> "…eventually contribute to rebuild a class of rentiers in the United States whereby a small group of wealthy but untalented children controls vast segments of the U.S. economy and penniless, talented children simply cannot compete."

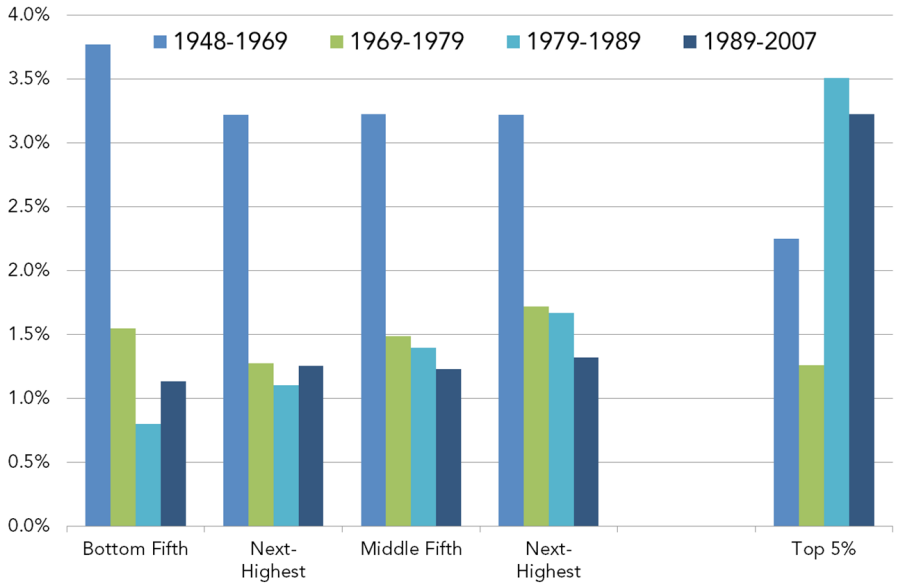
But claims about the supposed harm done by rising income inequality are rarely substantiated, and a comprehensive read of the evidence as to inequality's consequences offers little cause for alarm. Inequality has been rhetorically linked to stagnant incomes among the poor and middle class, to slow economic growth, to diminished opportunity among children lower down the income ladder, to macroeconomic financial instability and household indebtedness, and to political inequality. The state of our knowledge about these links, however, suggests little reason to prioritize income inequality as a national problem.

Claims about the supposed harm done by rising income inequality are rarely substantiated, and a comprehensive read of the evidence as to inequality's consequences offers little cause for alarm.

Consider first the relationship between inequality and the living standards of the poor and middle class. It is widely believed that incomes below the top have stagnated as the rich have pulled away, taking an outsized share of income growth with them. However, the truth is that there is no inconsistency between the top receiving a large share of income gains and the poor and middle class seeing significant income growth.

To be sure, income growth below the top has slowed since the "Golden Age" of the 1950s and 1960s. As the chart below shows, annual income gains among the bottom 80 percent of households were stronger than among the top five percent between the peak years of 1948 and 1969, and gains were strongest among the bottom fifth (details on data sources here). Since the 1960s, income growth below the top has slowed. However, an indication that rising inequality has not been primarily responsible for this slowed growth is the fact that diminished income growth preceded the rise in income concentration at the top. The 1970s were a lousy decade for the poor, middle class, and rich alike. The reason? A slowdown in productivity across the industrialized world.

Figure I. Annual Household Income Growth, 1948-2007



Source: For income below the top five percent, 1948-69, "Mean family income, by income group" Table 2.1, *The State of Working America*. Washington, D.C.: Economic Policy Institute, 2012, and author calculations. For 1969-2007, Current Population Survey and author calculations. For top five percent, Thomas Piketty and Emmanuel Saez, "Income and Wage Inequality in the United States, 1913-2002," in A.B. Atkinson and Thomas Piketty, eds., *Top Incomes Over the Twentieth Century: A Contrast Between European and English-Speaking Countries* (Oxford: Oxford University Press, 2007), updated at http://elsa.berkeley.edu/~saez/TabFig2012prel.xls, and author calculations. For details, see Scott Winship, "Choosing Our Battles: Why We Should Wage a War on Immobility Instead of Inequality," Testimony Before the Joint Economic Committee, January 16, 2014.

Income inequality did not increase that much in the 1970s, and while it increased thereafter, within the bottom 80 percent, the rise in inequality was confined to the 1980s. Overall, inequality within the bottom 80 percent has increased only modestly since the 1960s. In 1969, the middle fifth of households had an average income 2.5 times that of the bottom fifth—with the ratio rising only to 2.9 times larger in 2007.

Income concentration at the top rose after the 1970s, though even here, the increase shown in the chart is overstated. The figures—from Piketty and colleague Emmanuel Saez—do not account for public transfers, the value of non-wage employer benefits, or redistribution occurring through the tax code. They also focus on tax returns instead of households and do not adjust for declining household size. Two roommates constitute one household but two tax returns, and teens and college students who work part-time and file their own tax returns are counted independently of their parents. Estimates from the Congressional Budget Office that correct these shortcomings show smaller increases in income concentration over time. Figures from Piketty and Saez that focus on earnings and exclude investment income indicate even smaller increases in income concentration. While the figures in the chart above suggest that the share of income received by the top five percent rose from 21 percent to 34 percent from 1979 to 2007, the estimates using earnings show an increase from 17 percent to 25 percent. (See also Philip Armour's contribution to this primer.)

Note, too, that incomes below the top 5 percent did not stagnate. Incomes among the bottom fifth were one-third higher in 2007 than in 1979, and those among the middle fifth were 43 percent higher.

Turning to the relationship between inequality and economic growth, despite the attention given to an International Monetary Fund paper purporting to find that countries with more inequality experience

weaker recoveries from recessions, the academic literature comes to no consensus. Studies are as likely to find that more inequality corresponds with higher growth, as they are to find a negative relationship. The IMF study was primarily focused on developing countries, while including only a few industrialized nations in Asia. The liberal Center for American Progress has published no fewer than three studies concluding that, among the studies which directly examine the question, there is little evidence that higher inequality harms growth.

Of course, if inequality rises and economic growth does not increase, then the implication is that growth does not benefit the middle class or poor. But research by sociologist Lane Kenworthy shows that across industrialized countries, increases in inequality do not correspond with lower median income growth. A study by Christopher Jencks and his colleagues suggests that in recent decades, greater inequality growth corresponds with stronger economic growth, which would be consistent with increases in median income.

Income distribution is not a zero-sum game. Yet even if possible, limiting income concentration after 1979—by keeping the shares received by the bottom, middle, and top at their 1979 allocation—might have reduced subsequent income growth. If it would have done so by 0.5 percent per year or more, then preventing inequality from rising would have successfully kept the share of income received by the top from rising, but would have left the middle fifth no better off than they actually were in 2007. They would have received a larger slice than they actually did, but of a smaller pie.

What about the impact of inequality on opportunity? The conclusion of mobility expert and sociologist Michael Hout in 2004 remains true today: "[The] literature to date has offered surprisingly little evidence that links intergenerational difference and persistence (mobility and immobility) to economic or other inequality." Economists Alan Krueger and Miles Corak have argued in recent years that the positive association across countries between income inequality and intergenerational mobility implies that the former diminishes the latter. However, this correlation has not held up across labor markets within the United States, suggesting that cultural and other differences across countries may be responsible for any correlation between inequality and mobility. Indeed, the relationship is as strong between mobility and population size as between mobility and income inequality, and there is no association between mobility and wealth inequality.

Furthermore, the mobility measure used by Krueger and Corak indicates less "mobility" when inequality increases more. When a measure of mobility is used that is unaffected by changes in inequality and focuses on whether parental income rank is related to the income rank of adult children, Sweden and the United States have the same mobility (despite having very low and very high inequality, respectively). The implication is that when inequality is not baked into the mobility measure, there may be little correlation between inequality and mobility, let alone a causal relationship.

Does income inequality lead to financial crises and indebtedness? While former Labor Secretary Robert Reich and Raghuram Rajan, chairman of India's central bank, have suggested that high and rising inequality led to both the Great Depression and the Great Recession, the most rigorous research on this question indicates that this is a classic case of an omitted variable. Economists Michael Bordo and Christopher Meissner looked at financial crises across countries and over time, and found that rising inequality was incidental. Rather than causing crises, rising inequality tends to co-occur with the inflation of credit bubbles. But it is the credit bubbles that lead to financial crises.

Another argument, made most prominently by economist Robert Frank, is that when inequality increases, people below the top feel pressured to overspend to "keep up with the Joneses." The not-quite-rich spend more to keep pace with the rich, the upper-middle-class follow suit, and so on, all the way down to the poor. States and counties that saw bigger increases in inequality during the 1990s also saw more growth in bankruptcy filings. However, we

do not know that the stronger rise in bankruptcy filings in these counties was concentrated among the poor or middle class.

In another study, middle class households in states with more inequality also spent more relative to their incomes than their counterparts in other states. That could have reflected greater spending out of housing wealth as income concentration bid up the value of homes, although middle-class households in high-inequality states were also more likely to say they were worse off financially than a year ago. The specific areas of spending that rose disproportionately among the non-rich in response to income gains at the top mostly involved personal appearance and home maintenance, suggesting that if income concentration increases spending, the additional dollars are spent on discretionary items rather than necessities. These facts hardly constitute a case for public policy to intervene to save consumers from themselves.

Finally, concern about whether income inequality leads to political inequality is also excessive relative to existing evidence. Here, too, the alarmists' case is built on inapplicable research and selective citation. Many commentators cite the work of economists Daron Acemoglu and James Robinson, who show that inequality in developing countries is associated with the creation and maintenance of political institutions that redistribute money into the hands of elites. However, Acemoglu and Robinson provide no evidence that this occurs in modern industrialized democracies.

Commentators worried about inequality often cite the research of Larry Bartels and of Martin Gilens, who separately find evidence that political outcomes are more aligned with the preferences of the rich, than with those of the poor or middle class. However, Robert Erikson and Yosef Bhatti find no evidence of unequal representation in research that directly addresses the Bartels paper.

In 2004, a task force on inequality convened by the professional association of academic political scientists concluded, "We know little about the connections between changing economic inequality and changes in political behavior, governing institutions, and public policy." More recently, a 2011 book summarizing a political science conference on unequal representation, summarized the conference findings:

> We discovered that no real consensus exists on how different groups [including those defined by income] influence policy. Not only were there debates about differences between groups, there were also serious disagreements about whether these differences matter....[T]he conference made clear that we do not yet have a good answer to the question of who gets represented.

The authors of the book found that the policy preferences of poor, middle class, and upper-income Americans do not differ all that much, and where there are differences, they are long-standing ones that have not changed as income inequality has risen.

The case that inequality has substantial costs is simply overstated by conventional wisdom. That is not to say that new evidence will not emerge that could change this conclusion—and it may be that despite the weak evidence, rising inequality really has been problematic. But policymaking must be based on evidence, not biases or hunches (unless, of course, it is argued that inequality is just wrong even if it has no costs). Looking at the facts, it is difficult to see why we should focus on inequality over any number of other potential policy issues—if we are concerned about the poor and middle class, or the state of the economy, or of our democracy.

In this volume, we evaluate several facets of the income inequality debate. Empirical analysis shows that many commonly accepted ideas about income inequality are false or overstated. The debate over economic mobility—and how income inequality contributes to it—is an important debate. However, if policy recommendations are to be effective, they must be informed by an accurate picture of the current situation.

CHAPTER 2:
THE IMPORTANCE OF CONSUMPTION FOR MEASURING INEQUALITY

Bruce Meyer, University of Chicago

The most well-known work on inequality has focused on the distribution of wages, earnings, or taxable income, leaving consumption out of the discussion. There are several reasons why consumption is a critical tool in measuring inequality and well-being. Consumption reflects typical income and is thus more permanent than measured income, which often fluctuates from year to year. This permanence is because people tend to "smooth" their consumption over time, as income fluctuates, by borrowing or saving. Measures of income also do not reflect all available resources, including wealth, that improve well-being. For instance, more than 80 percent of people over 65 own a house and may make small or no payments on it. This is not factored into measures of income. Similarly, measures of income do not reflect access to credit, which differs across groups, nor do such measures reflect price changes in assets, such as houses and stocks.

The level of inequality is much lower for consumption than income, and since 1980, consumption inequality has risen considerably less than income inequality.

There are also difficulties in effectively measuring income for the purposes of inequality. Measures of income usually do not account for taxes and transfers, which have large effects on income inequality. For those near the bottom of the income distribution, income tends to be underreported, partly due to the exclusion of many non-cash transfers from the government.

There are also challenges to measuring consumption accurately, but many of the supposed weaknesses of consumption data are overstated or wrong. At least for those at the bottom of the distribution, consumption is more accurately captured in household surveys than income.

In the Consumer Expenditure Survey, the accuracy of the consumption measure depends on what type of consumption is being measured. For instance, the accuracy is high for rent, utilities, groceries, cars and gasoline. As might be expected, people are less accurate in reporting their consumption on alcohol, clothing, and furniture.

My coauthor, James Sullivan of Notre Dame, and I used information from a subset of total consumption that includes important spending categories that tend to be well reported, including housing and utilities, food at home, and transportation. These categories make up most of non-medical consumption, and relative to overall price changes, those for this core group have been small.

Even when using consumption rather than income, the question still remains: has inequality changed in the past 50 years? Looking at the ratios of the incomes of the 90th, 50th, and 10th percentiles compared to each other, the data do present a story of generally widening inequality, increasing from the 1970s on, even when taxes and non-cash benefits are factored in. However, when these ratios are

considered using comparisons based on consumption, a very different story emerges. This shows that inequality in consumption rose at a much slower rate than income inequality over the past several decades. In recent years, even the direction of the change has differed.

Since 2006, the ratio of the 90th percentile to the 10th percentile shows rising inequality when incomes are compared, but a *decline* in inequality when consumption is examined. What exactly caused this shift is not entirely clear, but changes in housing and financial asset values can explain some of the pattern. Furthermore, one observes lower absolute levels of inequality when looking at consumption. A similar phenomenon of lower inequality is seen when comparing the 50th percentile and the 10th percentile, or the 90th and 50th percentiles.

When talking about consumption, a common question is "Have people over-consumed?" This question is largely irrelevant. For measurement purposes, it does not matter. A consumption measure shows us whether a person drives a car or eats a meal regardless of other factors, and spending cut-backs are recorded as well. The financial crisis and recession forced many people to adjust their consumption plans when their incomes and asset values changed—there are, perhaps, better questions to be asked when it comes to how people are spending.

One such question is, "Does the balance sheet of the population look worse than in the past?" Our research provides the answer. In these terms, the bottom 20 percent of the population has little assets or debts, so there is little to examine. The middle 20 percent has seen a rise in debt, but this level is now well below its peak. Moreover, the net worth of this quintile is also above what it has been in the past, except for the years around the peak of the housing bubble. It would seem, then, that the balance sheet of the population does not look worse than it has in the past.

Over the past five decades, both income and consumption inequality have risen. The level of inequality is much lower for consumption than income, and since 1980, consumption inequality has risen considerably less than income inequality. Income inequality has generally increased episodically, with concentrated spurts in the late 1970s, early 1980s, and in the last several years. And since 2006, though income inequality has been rising, consumption inequality has been falling.

The causes of these differences are somewhat unclear. Demographic changes can account for some of the changes in consumption and income inequality, particularly in the 1980s, but account for few of the changes overall. The quality of the income data at the bottom may also explain some of the differences. Changes in asset prices could play the biggest role in explaining the difference, at least in recent years.

As for inequality being the defining issue of our time, our research indicates that when looking at inequality from a more holistic perspective, and when measurement tools are thoroughly analyzed, there may be more facets to inequality than commonly considered. While there is evidence of income inequality increasing over the past five decades, the increase has only partially affected consumption inequality, which is where policy-makers should concentrate their efforts.

CHAPTER 3:
HOW THE TOP'S SHARE OF INCOME CHANGES WITH COMPREHENSIVE MEASUREMENTS

Philip Armour, Cornell University

Few serious scholars believe that middle class and poor households have seen the income growth experienced by top earners in recent decades. Both the ubiquitous estimates from economists Thomas Piketty and Emmanuel Saez and figures from the Congressional Budget Office show dramatic increases in the share of income received by the richest one percent of Americans. Between 1979 and 2007, the Piketty-Saez numbers rise from 10 percent to 24 percent, and the CBO share increases from 7 to 17 percent. Attempts to deny that the top has pulled away have, generally, been wholly unpersuasive. However, this does not mean the conventional wisdom is correct.

My colleagues, Richard Burkhauser (Cornell University) and Jeff Larrimore (Joint Committee on Taxation), and I use data from the Bureau of Labor Statistics's Current Population Survey to mimic the approach used by Piketty-Saez, which focuses on the incomes on tax returns, before accounting for taxes and transfers. Doing so shows that from 1979-2007 the bottom quintile's income fell 33.0 percent, the middle quintile's income rose just 2.2 percent, and the top quintile's income rose 32.7 percent. If these numbers are representative of the economic situation in the United States, an argument can be made that there is cause for concern.

But are tax returns the best way to measure income trends? Examining size-adjusted household income is far better. "Tax units" are neither individuals—a married couple filing jointly is a tax unit—nor households (two roommates filing returns constitute two tax units). Furthermore, household needs have declined with household size.

Using households, and adjusting incomes for their size, lowers but does not eliminate the measured increase in income inequality. All groups experienced income growth with this methodology: the incomes of the bottom quintile rose 16.5 percent; those of the middle rose 20.2; and those of the top rose 41.0 percent.

But using pre-tax, pre-transfer income—also known as "market income"—to evaluate effects of more progressive taxation and redistribution is pointless. If only market income is used, then no matter how much is redistributed through taxation and spending, inequality will be unaffected. When taxes and transfers are included in household income, it becomes clear that government programs have been successful in mitigating income concentration.

Non-cash transfers, including SNAP benefits (food stamps) and government health coverage, financed by taxes on the wealthy, are major tools used to combat inequality. Taxes, it is true, have declined across the board, increasing take-home pay. Additionally, more and more compensation going to middle class workers has come in the form of employer-provided health insurance.

Once these factors are taken into account, incomes of those in the bottom quintile improved 31.8 percent, those in the middle quintile saw incomes rise 34.4 percent, and those in the top saw an increase

of 54 percent. While inequality did increase, everyone is now substantially better off. For those at the bottom, an increase of 31.8 percent in income is far different than a decrease of 33 percent (Piketty-Saez methodology).

From 1989 to 2007 (again comparing peak years), the bottom fifth, middle fifth, and top 5 percent saw gains of 26 percent, 20 percent, and 17 percent, respectively, indicating a decline in inequality. A problem with these estimates, however, is that they do not include any income from capital gains. Capital gains derive from assets that appreciate in value, and since assets are especially unequally distributed, inequality estimates that leave capital gains out are potentially problematic. We can incorporate capital gains into our income measure, starting in 1989, by imputing amounts to households using information from other datasets.

A shocking result emerges: from 1989 to 2007, the incomes of the bottom and middle fifth rose (by 13 percent and 6 percent), but the income of the top 5 percent declined by 5 percent. Inequality—even between the top and everyone else—*fell*.

To facilitate comparability with the CBO and Piketty-Saez figures, gains that are both taxable and realized must be added in first. These are gains which result in taxable income directly received as a consequence of selling assets in a given year. After doing so, the data show the top 5 percent pulling away from everyone else, even from 1989 to 2007. The poorest fifth of Americans saw their incomes rise by 28 percent, the middle fifth by 22 percent, and the top 5 percent by 52 percent.

CBO's estimates confirm both the decline in poor-middle inequality and the disproportionate rise in income at the top. After applying the same cost-of-living adjustment as in our paper, CBO income figures show gains for the bottom fifth, middle fifth, and top 5 percent of Americans of 31 percent, 23 percent, and 81 percent from 1989 to 2007. While the CBO figures combine tax return and CPS data, Piketty-Saez rely entirely on tax return data. They ignore the bottom and middle fifth but show an 87 percent increase in the income of the top 5 percent of "tax units". CBO and Piketty-Saez both show bigger income gains for the top 1 percent (116 percent and 123 percent, respectively). The survey we used cannot reliably capture changes in income in the top 1 percent, but it is safe to say that if it could, it would show a rise similar to that in the CBO figures.

But this is not the last word, either. The CBO and Piketty-Saez income figures are only able to account for capital gains that are both taxable and realized. We point out two big problems with this restriction. First, tax-exempt, realized capital gains are ignored, including those from the sale of homes. These constitute a large share of capital gains received by the non-rich, so ignoring them overstates the rise in inequality. Another issue related to tax exemption is that savvy taxpayers at the top can alter their asset allocations so that more or fewer of their realized gains are taxable in response to tax law changes.

Second, and more important, there is a conceptual problem including realized capital gains in "income", but not the gains that accrue on assets that are held rather than sold. For one, the distinction is immaterial. Gains that accrue each year add to the resources available for consumption or saving, whether they are realized or not. No less than realized gains, accrued gains not realized constitute part of the annual "flow" of resources properly conceived as "income" (as distinguished from the "stock" of accumulated resources properly thought of as "wealth"). In addition, investors strategically choose to realize capital gains depending on the state of asset markets and on changes in the tax treatment of different assets. Realization of gains accrued over many years tends to show up in tax return data in

lumpy ways, as Cato Institute scholar Alan Reynolds has argued. A sizable share of the capital gains accruing to middle class households builds up over adulthood in accounts, such as IRAs and 401(k)s, and is not realized until retirement.

When we incorporate estimates of all capital gains accrued by a household over the past year—taxable or tax-exempt, realized or not—from investments in public companies and housing into our findings, a shocking result emerges. From 1989 to 2007, the incomes of the bottom and middle fifth rise (by 13 percent and 6 percent), but the income of the top 5 percent declines by 5 percent. Inequality—even between the top and everyone else—falls. The decline is even more pronounced when we incorporate gains from privately-held businesses.

Should our results be discounted because they cannot capture the incomes of the very rich, as Saez argues? This is surely a relevant question. Note, however, that the top 5 percent's income growth taking only realized capital gains into account is eliminated by taking into account how much smaller total accrued gains were in 2007, than in 1989. At the very least, then, the income growth of the top 1 percent, or the top 1 percent of the top 1 percent, also would be expected to be significantly lower after accounting for accrued gains. Furthermore, our imputation of accrued gains draws from the Survey of Consumer Finances, which is designed to give reliable estimates for the top 1 percent.

Is our research the final word on inequality trends? Of course not. Of necessity, we use non-ideal imputation strategies to assign accrued gains to people. Our findings cannot tell us very reliably what happened to incomes at, say, the 99.9th percentile. There is little to suggest, however, that the ideal set of estimates would look qualitatively different from our results. The rise in income concentration has been drastically overstated.

CHAPTER 4:
HOW CHANGING DEMOGRAPHICS AFFECT INEQUALITY

Diana Furchtgott-Roth, e21 Director, Manhattan Institute

Economists often divide households into income quintiles (fifths) and measure the differences in their incomes. However, the demographic characteristics of these quintiles have been changing over time, so comparisons of quintiles are misleading. Quintiles differ in the number of people per household, as well as in the number of earners per household. Table 1 shows that in 2012, households in the lowest fifth had an average of 1.7 people, and in half these households, there were no earners. The highest fifth, however, had 3.1 persons per household, with two earners.

The lowest-income group contains at least three significant groups of individuals. Some have low incomes because of lack of employment and are searching for jobs, or better-paying jobs. A second group comprises elderly people who may have small amounts of retirement income, but substantial assets, such as stocks and a home. These individuals are not in the labor force. A third group consists of students or recent graduates whose education levels ensure that they will have a prosperous future. Clearly, the first group is a social problem in need of a solution, but not the other two.

In 1990, median income for a family with one earner was about $41,800. In 2012, median income for that one-earner family rose to about $43,300, a 4 percent difference. But the increase between a family with two earners in 1990 and 2012 was far greater. That family's income rose from about $71,000 to about $82,600, a 16.5 percent difference, resulting in a measured increase in inequality.

This reflects the contribution of the second earner, which comes from increasing women's wages in the job market, as young women have invested in their education in preparation for a full-time career. If there were more one-earner households, the distribution of income would be far more even.

Another change is the shrinkage in household size at the bottom of the income scale, adding to a false

Figure 2. 2012 Consumer Units by Income Quintile

	Lowest 20 percent	Second 20 percent	Third 20 percent	Fourth 20 percent	Highest 20 percent
Number of persons in consumer unit	1.7	2.2	2.5	2.8	3.1
Earners	0.5	0.9	1.3	1.7	2.0
Homeowner	39	54	64	75	89
With mortgage	11	23	37	54	68
Without mortgage	28	31	27	21	11
Renter	61	46	36	25	11

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, September 2013.

perception of increased inequality. This is due to the increased longevity of today's seniors and to the higher numbers of divorced people and single-parent households.

In 1960, 13 percent of households had just one person. By 2011, 27 percent of households, more than double the previous share, had one person.

It is notable that 30 percent of female households without a husband are living in poverty. In contrast, only 7 percent of married couples and 17 percent of male households without a wife are poor.

Census data in Table 2 show that men and women living alone are most likely to be in the lowest-income quintiles. Some 46 percent of women living alone were in the bottom quintile in 2012, and 72 percent of women living alone were in the bottom two quintiles. Only 3.4 percent of women living alone were in the top quintile. The trends are similar for men. Some 60 percent of men living alone were in the bottom two quintiles, and only 6.8 percent were in the top quintile.

Differences in per-person spending, from the lowest-income fifth to the highest, are not different from 25 years ago.

In contrast, married couples are more likely to be in the top quintiles. Some 32 percent of married couples were in the top quintile, and 58.4 percent were in the top two quintiles.

Another factor, which can influence measures of inequality, is change to the tax code. The Tax Reform Act of 1986 lowered the top individual tax rate to 28 percent, and the corporate rate to 35 percent. In 1986, the top individual rate was 50 percent, and the top corporate rate was 46 percent, so small businesses would pay tax at a lower rate if they incorporated and filed taxes as corporations. With the implementation of the Tax Reform Act of 1986, the top individual tax rate of 28 percent meant that small businesses were often better off filing under the individual tax code. Revenues shifted from the corporate to the individual tax sector. In the late 1980s and 1990s, that made it appear as though people had suddenly become better off and income inequality had worsened. This had not happened; rather, income that had been declared on a corporate return was being declared on the individual return. This makes any comparisons between pre-and post-1986 returns meaningless.

A more meaningful measure of inequality that avoids changes in tax laws and changes in demog-

Figure 3: Percentage of Households within Each Income Quintile by Type of Household, 2012

Type of Household	Lowest 20 percent	Second 20 percent	Third 20 percent	Fourth 20 percent	Highest 20 percent	Top 5 percent
Family households	12.2	17.7	20.5	23.5	26.1	6.6
Married-couple families	7.0	14.8	19.9	26.3	32.1	8.4
Male householder, nsp	16.9	23.3	25.8	19.6	14.4	2.7
Female householder, nsp	30.2	26.6	20.9	14.5	7.8	1.3
Nonfamiliy households	35.2	24.5	19.0	13.1	8.2	1.9
Male living alone	34.3	26.0	20.6	12.4	6.8	1.7
Female living alone	45.7	26.0	16.5	8.5	3.4	0.7

Note: nsp denotes no spouse present.

Source: U.S. Census Bureau, Annual Social and Economic Supplement, 2013 (Table HINC-05. Percent Distribution of Households, by Selected Characteristics within Income Quintile and Top 5 Percent in 2012).

raphy comes from an examination of spending, as Bruce Meyer notes in chapter 2.

Differences in per-person spending, from the lowest-income fifth to the highest, are not different from 25 years ago. These measures of spending show less inequality than do measures of income. Spending is vital because it determines our current standard of living and our confidence in the future. It shows how much purchasing power individual Americans have.

I calculate spending on a per-person basis in order to produce comparable measures. These data are converted into 2012 dollars using the Bureau of Labor Statistics Consumer Price Index for all urban centers. It is important to compute spending on a per-person basis because the number of people in a household varies by quintile. For a given level of income, a family is better off with fewer people.

Table 3 shows that the average annual spending for a household in the lowest quintile in 2012 was $13,032 per person. In contrast, the average spending for a household in the top quintile was $32,054 per person.

On a per-person basis, the new Department of Labor numbers show that in 2012, households in the top fifth of the income distribution spent 2.5 times the amount spent by the bottom quintile, as can be seen in Table 3. That was about the same as 25 years ago. There is no increase in inequality. In addition, the overall level of inequality is remarkably small. A person moving from the bottom quintile to the top quintile can expect to increase spending by only 146 percent.

Many commentators today bemoan a supposed inequality in the United States. Much of this concern is a "problem in search of reality", caused by problems of measurement and changes in demographic patterns over the past quarter-century. Government data on spending patterns show remarkable stability over the past 25 years and, if anything, a narrowing rather than an expansion of inequality.

Figure 4. Annual Expenditures by Income Quintile 2012

Real Expenditure per Person by Income Quintile, Selected Years 1987-2012, 2012 Dollars

		1987	1992	1997	2002	2007	2012
Total Annual Expenditure	Lowest 20 percent	11,627	11,495	12,722	14,309	13,334	13,032
	Second 20 percent	14,410	14,325	14,652	15,744	15,678	14,833
	Middle 20 percent	16,875	17,395	17,994	18,827	18,801	17,202
	Fourth 20 percent	20,631	20,368	21,135	22,986	21,873	21,421
	Top 20 percent	29,350	30,608	30,825	31,586	33,479	32,054
	5:1 ratio	2.5	2.7	2.4	2.2	2.5	2.5

Source: Manhattan Institute Calculations, and U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey 1987-2012.*

CHAPTER 5:
HISTORICAL PERSPECTIVES ON INCOME INEQUALITY AND ECONOMIC MOBILITY

Gerald Auten, U.S. Treasury

Widely-cited figures from Thomas Piketty, Emmanuel Saez, and the Congressional Budget Office—showing that the top one percent's share of income has increased over time—have been influential in debates over income inequality. The CBO trend is slightly lower than the Piketty-Saez trend because it uses a broader measure of income, adjusts for family size and makes other important improvements. In general, most studies have found a long-term trend of rising inequality. Richard Burkhauser, Philip Armour, and Jeff Larrimore (in research described in chapter 3) found that the trend flattens out after 1990 once employer provided health care is accounted for as part of earnings.

These studies compare cross-section views of the population over time. The actual experiences of individuals over time can be quite different. Thus it is important to also consider income mobility, variability, and other aspects of income dynamics over time.

Increasing inequality potentially affects mobility because it means that the "steps" on the income ladder are further apart, making upward mobility more difficult and potentially leading to reduced mobility over time. The ratio of income cutoffs for the top one, five and 20 percent income classes to median income has generally grown over time. For example, the income cutoff for being in the top one percent rose from about 6.5 to 8.8 times median income, from 1987 to 2011. Similarly, the ratio rose from about 3.0 to 3.7 for the cutoff for the top five percent.

Because of the discussions about widening income gaps and the fact that the experiences of individuals and families can differ from cross-section results, it is important to look at income mobility and how this has changed over time.

A significant part of the income mobility story is the life cycle of income: incomes are typically lowest for people in their first jobs, rise with seniority and promotions, and then decline after retirement.

The income measure used in this analysis is intended to provide a broad measure of current year cash income using consistent tax data starting in 1987. In addition to the regular income that is reported on returns, the measure adds back non-taxable social security benefits, which is the single largest transfer payment program, and tax-exempt interest. It also adjusts for net operating losses, which are really business losses in previous years, and makes other adjustments to arrive at this year's cash income.

While the tax filing rate for individuals age 25 to 65 is quite high, one problem with using tax data is how to account for non-filers. For the results from the 2013 paper (intergenerational mobility), income of non-filers was estimated using information returns

Figure 5. 10-Year Mobility Relative to the Total Population, Age 25+, 1996-2005							
1996 Quintile	2005 Income Quintile						Top 1%
	Lowest	Second	Middle	Fourth	Highest	Total	
Lowest	43.7	28.8	14.9	8.0	4.5	100	0.2
Second	15.3	30.3	30.2	16.9	7.3	100	0.2
Middle	5.9	15.0	31.8	32.7	14.5	100	0.2
Fourth	3.4	7.3	17.4	37.7	34.2	100	0.3
Highest	2.6	3.1	7.0	18.1	69.1	100	4.6
Top 1%	3.2	1.4	2.1	5.6	87.8	100	41.5
Total	13.2	16.1	19.9	23.2	27.6	100	1.2
Source: Auten and Gee, National Tax Journal, June 2009.							

filed with the IRS (i.e., W-2s, K-1s, and other types of income information returns).

It is common to examine income mobility by tracking people's positions in the income distribution over a 10-year period. There are three ways of looking at mobility: mobility relative to the comparable population; mobility relative to the initial sample; and absolute income mobility. Figure 5 shows the results of the first approach by tracking individuals, age 25 and older, from their initial income quintile in 1996 to their 2005 quintile. In this figure, they are compared to the population that was 25 and older in 2005.

Auten and Gee (2009) found that 43.7 percent of those initially in the bottom quintile were in the bottom quintile 10 years later as well (represented in the upper left cell). This means more than half (56.3 percent) moved up to a higher income quintile. About 4.5 percent had moved to the top quintile. About 69 percent of the top income quintile remained in the top income quintile again 10 years later.

Of those that were in the top 1 percent in 1996, fewer than half, only 41.5 percent, were there 10 years later. In the tax data, the analysis was able to look at the top 0.1 percent and the top 0.01 percent, where the percentages of people who remain in the top groups were even lower (less than 25 percent for the top .01 percent). This suggests that top income earners are not a static group, year-after-year.

Notice that the totals in the bottom row are not equal to 20 percent for each quintile. This is because there are new people in the population 10

Figure 6. 10-Year Mobility Relative to the Original Sample, Age 25/35+, 1996-2005							
1996 Quintile	2005 Income Quintile						Top 1%
	Lowest	Second	Middle	Fourth	Highest	Total	
Lowest	57.7	24.1	10.1	5.3	3.0	100	0.1
Second	25.1	36.3	23.3	11.2	4.1	100	0.2
Middle	10.5	24.1	33.7	23.6	8.1	100	0.2
Fourth	5.6	12.4	23.2	36.7	22.2	100	0.3
Highest	3.6	4.7	10.0	21.9	59.8	100	4.1
Top 1%	3.8	1.6	3.2	5.9	85.4	100	38.5
Total	20.0	20.0	20.0	20.0	20.0	100	1.0
Source: Auten and Gee, National Tax Journal, June 2009.							

Figure 7. Absolute Income Mobility, Age 25+, 1996-2005				
1996 Quintile	1996 to 2005 Real Income Change:			% Change Median Real Income
	Decreased	Increased <100%	At Least Doubled	
Lowest	19.8	33.7	**46.5**	**77.2**
Second	26.9	52.2	21.1	36.9
Middle	29.0	58.4	12.6	24.4
Fourth	34.7	55.6	9.5	17.9
Highest	48.0	42.6	10.0	8.6
Top 1%	**66.9**	20.0	13.0	**-30.9**
Total	32.4	48.8	18.9	**22.7**

Source: Auten and Gee, National Tax Journal, June 2009.
Notes: Cash income is adjusted for family size and inflation. Primary and secondary taxpayers are followed separately.

years later: new immigrants and new 25 year-olds who, typically, have lower incomes. In addition, the population is growing 1 percent per year, because of immigration and births, so that there are more slots in the top 1 percent. As a result, those in the initial population tend to move up in the overall distribution: 27.6 percent of the initial population was in the top income quintile by 2005.

Figure 7 again compares everyone 25 and older in 1996—but instead compares them to the same group 10 years later. Under these conditions, it is more difficult to move up in the population because there are no new entrants to the comparison population. The numbers are going to show more people staying at the bottom, but also fewer people staying at the top. This is the traditional way mobility studies have been done, but it ignores population growth and new entrants to the population.

In order to see whether real, family-size adjusted incomes are increasing or decreasing, we need to consider the third way we looked at mobility: absolute income mobility. As shown in Figure 8, real incomes rose 77 percent for people initially in the bottom quintile and by 8.6 percent for those initially in the top quintile. The higher you are in the distribution, the less your relative income increase. Real incomes of those initially at the top of the distribution tend to decline. The real income of the median taxpayer in the top 1 percent fell by nearly 31 percent over this period. For those initially in the top 0.1 percent and 0.01 percent, the drops in median income are even more dramatic: around 70 percent for the top 0.01 percent.

The median real income rose by 22.7 percent over this period, in contrast to some comparisons of cross-sections over time. Thus, real incomes were found to be rising for a majority of the population when the incomes of specific individuals were examined.

A significant part of the income mobility story is the life cycle of income: incomes are typically lowest for people in their first jobs, rise with seniority and promotions, and then decline after retirement. That is why we would expect people age 46 to 55 to be over-represented in the top income groups.

One way of seeing the effects of the life cycle of income is to follow the Baby Boomers, Generation X and the other generations as some of them occupy positions in the top one percent. Back in 1987, 79 percent of the top 1 percent was occupied by the Greatest Generation and the Silent Generation. Over time their share declined, however, and was down to 22 percent by 2010. On the other hand, in 1987, the Early Baby Boomers (then 32 to 41) accounted for only 16 percent of the top class—though their share rose to a peak (reaching 33 percent) in their

early 50s. In 2010, the combined early and later Boomer generations occupied 59 percent of the top one percent. The changing occupation of the top by new generations provides another illustration of the turnover at the top of the income distribution.

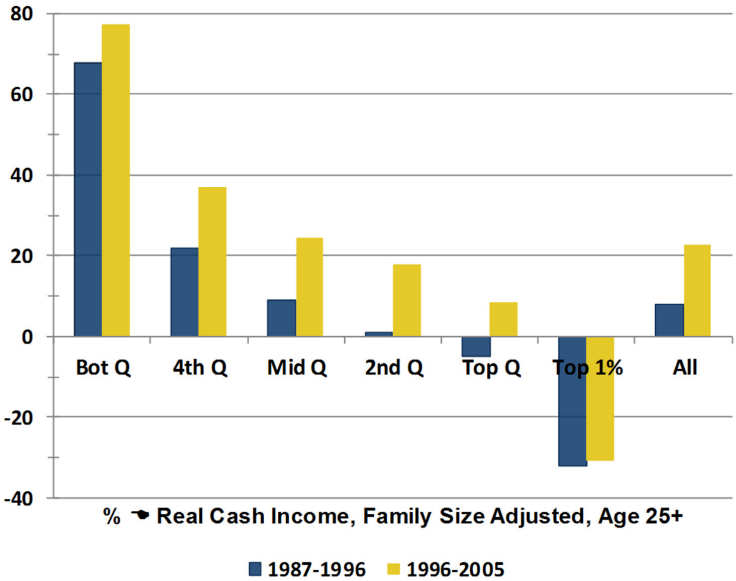
In 2011, 3.2 percent of Baby Boomers were in the top 1 percent. (As a ratio, this means Baby Boomers were 3.2 times the random probability of being in the top 1 percent.) In 2011, Baby Boomers, then in the 56-65 age group, were just past their peak earnings. Thus, if we are looking for "villains", we can blame the Baby Boomers: they have more than their "fair share" of top incomes, at least for now. This is another way to see the effect of the life cycle of income on one's position in the overall income distribution.

Mobility is mostly concerned with longer-term movements, but we also want to think about short-term income variability and turnover at the top as well. Forty-one percent of those in 2005 were there again in 2010, but only 25 percent of them had been there every year. Most people in the top one percent in a given year are likely to be there only once, or for a few years, and others bounce in and out of the top one percent. It's not, in short, the same people in the top one percent every year.

One of the important mobility questions is whether mobility has decreased as income gaps have widened and the steps on the ladder are further apart. In an examination of two 10 year periods, 1987 to 1996 and 1996 to 2005, there was identical mobility from the bottom quintile in the two periods, as 43.7 percent in the bottom quintile remained there after 10 years. In other words, 56.3 percent moved up. Overall, there is slightly more upward mobility into the top income groups in the more recent period, even though the income gaps were wider. For example, 2.6 percent from the bottom quintile rose to the top quintile, as compared to 2.1 percent in the earlier period. But since this earlier analysis did not have access to the information returns of non-filers and the differences are small, it is safer to conclude that income mobility has basically stayed the same over the two periods.

How is it possible that relative income mobility remained the same even though the income gaps widened over time? Figure 8 shows the percentage

Figure 8. Absolute Income Mobility Over Time: 1987-1996 vs 1996-2005



Source: Auten and Gee, National Tax Journal, June 2009.

changes in median cash income in the two time periods by income quintile and for the top 1 percent. In every quintile, the percentage increases in real family-size adjusted income were larger (or more positive) in 1996-2005, than in the earlier period. The change in median income for those in the top quintile went from negative to positive. In other words, absolute income mobility increased as there was more upward change in real income in the more recent period—and this offset the wider steps in the income ladder. As a result, relative income mobility remained about the same.

The results in Auten and Gee (2009) are not the only ones to find income mobility relatively unchanged. At a presentation at the recent American Economic Association meetings (available as NBER Working Paper 19844), Raj Chetty and his co-authors presented results indicating that intergenerational mobility has remained relatively unchanged among the more recent birth cohorts. Adding their results to those of earlier studies, they conclude that intergenerational mobility did not change significantly between the 1950 and 1970 birth cohorts.

Conclusions

It is important to keep in mind that people's incomes and positions in the income distribution spectrum can change considerably over time: over a life cycle, across generations, and even in the short-term. Many studies have shown that there is considerable income mobility and opportunity for low-income people to move up in the income distribution. While the outcomes are not fully distributed equally, many people in the bottom do indeed move up—and some move up to the top income groups. People looking at the same data may, however, disagree on whether the observed income mobility is *sufficient or fair*, as well as on what policies are most appropriate.

CHAPTER 6:
RELATIVE AND ABSOLUTE MOBILITY ACROSS GENERATIONS

Scott Winship, Manhattan Institute

Intergenerational mobility has emerged in recent years as a bipartisan policy priority. To the extent that upward mobility rates are low—relative to the past, to other countries, or simply to our intuitions about appropriate levels—the health of the American Dream is called into question. However, there are many misperceptions about the state of economic mobility in the United States, and a fuller appreciation of the various facets of the issue can aid policymakers as they develop proposals to promote upward mobility.

While relative mobility in the United States appears uninspiring, the same cannot be said of *absolute* mobility.

While it is often useful to think about mobility over the course of a person's adult life (see Gerald Auten's contribution in Chapter 5), discussions about opportunity generally have in mind intergenerational mobility: how much adult outcomes do, or do not, depart from those of their parents. Even focusing on intergenerational mobility leaves open what outcomes should be considered. Here I will discuss mobility in terms of family income, but mobility researchers have also considered earnings, educational attainment, occupational status, and wealth, among other outcomes.

Even restricting the focus to income still leaves two ways of thinking about mobility—in relative or absolute terms. "Relative mobility" is about how the ranking of adults against *their* peers is (or is not) tied to the ranking of their parents against their peers. That is to say, ignoring dollar amounts, did adults who rank high or low in the income distribution also have parents who ranked high or low? Careful research by the Pew Economic Mobility Project divides adult and parental income distributions into five equally-sized groups, or quintiles, ranked by income adjusted for family size. It then asks how likely it is that children starting in a given quintile end up in each quintile themselves as adults. If there were no connection between parent and child incomes, then a child growing up in any of the quintiles would have a 20 percent chance of ending up in any of the quintiles as adults. And for today's forty-somethings who grew up in the middle fifth around 1970, that is close to what we see: 19 percent ended up in the top fifth, 23 percent in the middle fifth, and 14 percent in the bottom fifth (Figure 3 in the Pew report).

But children who grow up poor or rich see more limited mobility. Among those raised in the bottom fifth, 43 percent remain there as adults. Just 30 percent made it to the top three-fifths (whereas 60 percent would have if parental income had had no relationship to child income), and only 4 percent made it to the top fifth. Mobility among today's adults raised in the top fifth displays the mirror image: 40 percent remain at the top, 37 percent fall to the bottom three-fifths, and only 8 percent fall to the bottom-fifth. (These figures indicate less mobility than in Gerald Auten's contribution because

they average multiple years of income together to net out volatility.)

While relative mobility in the United States appears uninspiring, the same cannot be said of "absolute mobility." Absolute mobility ignores rankings and simply considers whether adults tend to have higher, size-adjusted incomes than their parents did at the same age, after taking into account increases in the cost of living. The answer is, unambiguously, yes. Fully 84 percent of today's forty-somethings have higher size-adjusted family incomes than their parents did at the same age (Figure 1). Because poor parents have especially low income, adults who grew up in the bottom fifth are most likely to experience upward absolute mobility; 93 percent of them have higher incomes than their parents, compared with 70 percent of adults who grew up in the top fifth.

On the one hand, upward absolute mobility ought to affect how we think about limited relative mobility. A person "stuck in the bottom fifth" may end up much better off in absolute terms than her parents were. A forty-something in a family of four today could have $56,000 in income and be in the bottom-fifth of size-adjusted income (Figure 4). But that income would have put them squarely in the middle-fifth of size-adjusted income among parents around 1970. The richest forty-something in the bottom-fifth today is 85 percent richer than the top parent in the bottom-fifth was back then. Similarly, the forty-something, in the middle of the middle-fifth today, is 89 percent richer than the parent, in the middle of the middle-fifth of parents, was then.

On the other hand, even though those stuck at the bottom are better off than their parents were, they still occupy the lowest rungs of the economic ladder. If today's security guards or food service workers wanted to be lawyers or architects growing up but were unable to, that should temper our enthusiasm for their upward absolute mobility.

Of course, as many observers have pointed out, the fact of limited relative mobility does not necessarily indicate that opportunity is unequally distributed, and it is difficult to objectively assert what the ideal rate of upward or downward mobility would be. Reihan Salam put it well, noting that a world of perfect relative mobility is "one in which no matter how hard you work to provide your children with every advantage in life, they're just as likely to sink to the bottom of the heap as to rise to the top."

Still, relative mobility has not improved over time as we have become richer, and the United States has no better relative mobility than other industrialized nations that are less wealthy than we are (and probably worse mobility than some). No one in the middle and upper-middle classes would accept it if their children had a 70 percent chance of dropping out of the middle class. We should resist accepting that poor children—who do not choose their parents—have only a 30 percent chance of making it to the middle class.

CHAPTER 7:
HAS WORKER COMPENSATION TRACKED PRODUCTIVITY?

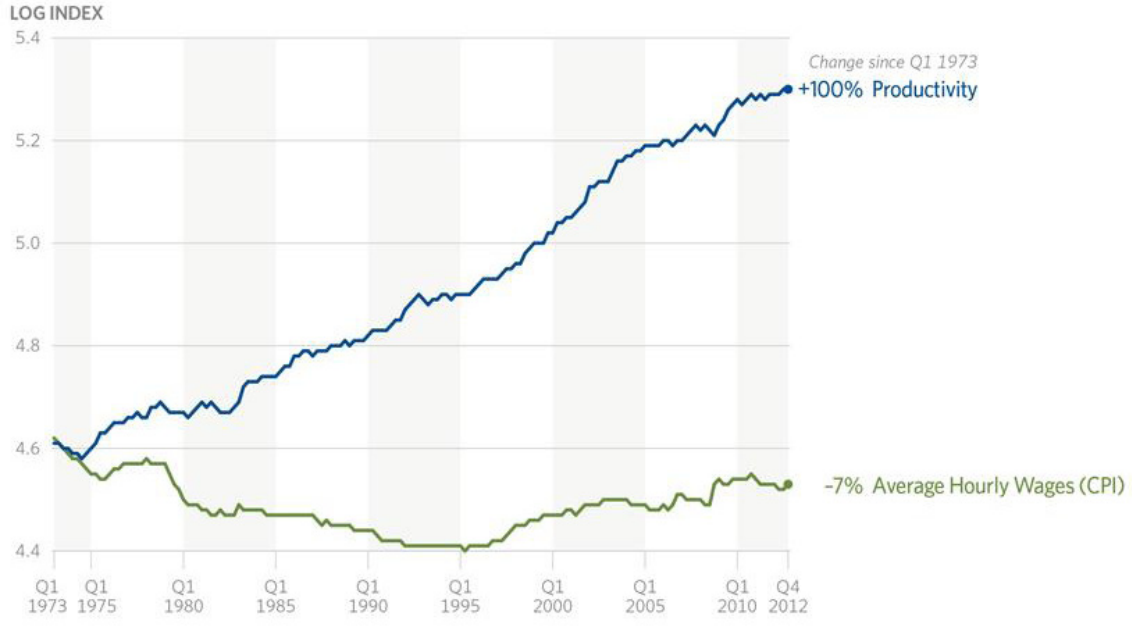
James Sherk, Heritage Foundation

The debate over the minimum wage really gets to the heart of one of the basic differences in how the Political Left and Right see the world. It is, in fact, one of the core misperceptions underlying the Left's economic prescriptions.

I read a recent New York Times op-ed describing why we need to raise the minimum wage to $10.10 an hour. Figure 9 presents the core of the argument. Productivity since 1973 has gone up 100 percent, according to the Bureau of Labor Statistics. When you adjust payroll survey wages for inflation using the CPI, it looks as if average wages have gone down about 7 percent.

The core of the New York Times argument is: businesses have been making more and more money; workers have become more productive but are not sharing in the fruits of their labor; instead, greedy capitalists have expropriated it; something has to be

Figure 9. Comparing Productivity with Hourly Wages, Inflation-Adjusted with the Consumer Price Index (CPI)



Source: Heritage Foundation calculations using data from the U.S. Department of Labor, Bureau of Labor Statistics, "Productivity and Costs," http://www.bls.gov/lpc/data.htm (accessed June 15, 2013); and Bureau of Labor Statistics, Current Establishment Survey/Haver Analytics. Hourly wages are from the Current Establishment Survey and are defined as the average hourly earnings of production and nonsupervisory employees on nonfarm businesses.

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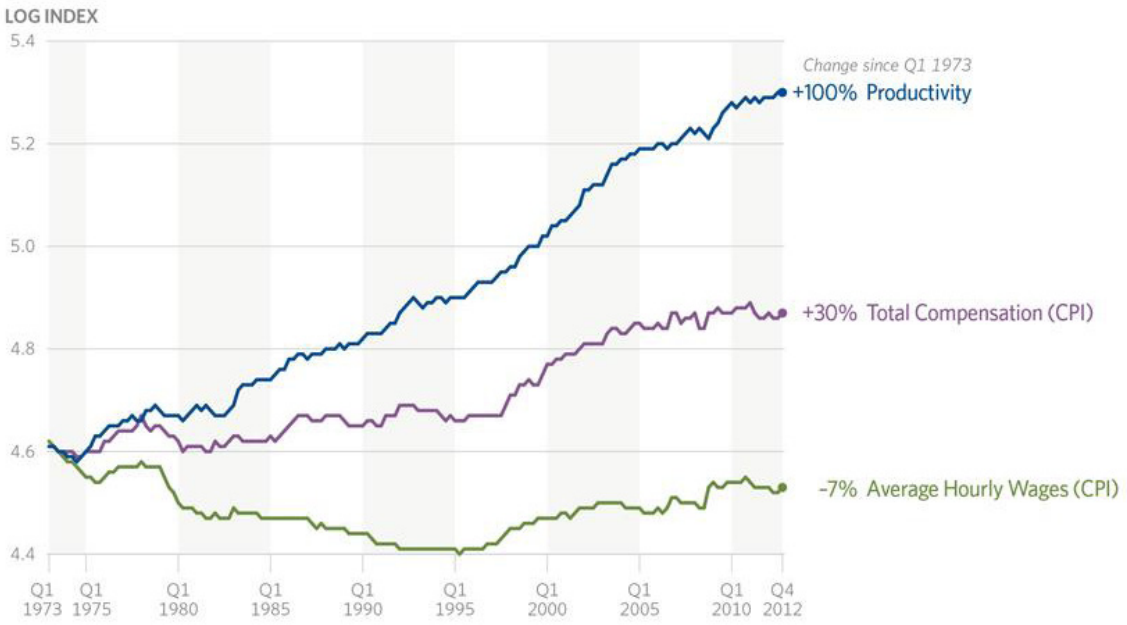
Figure 10. Comparing Productivity with Total Compensation, Inflation-Adjusted with the Consumer Price Index (CPI)



Source: Heritage Foundation calculations using data from the U.S. Department of Labor, Bureau of Labor Statistics, "Productivity and Costs," http://www.bls.gov/lpc/data.htm (accessed June 15, 2013); and Bureau of Labor Statistics, Current Establishment Survey/Haver Analytics. Hourly wages are from the Current Establishment Survey and are defined as the average hourly earnings of production and nonsupervisory employees on nonfarm businesses.

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done so that companies give workers the raises they have earned. This is not welfare, since businesses are unfairly keeping what workers have earned from them. The left repeats these claims over and over again. Productivity has gone up, but workers do not enjoy the fruits of their labor. So the government must step in. This would be a compelling argument—if only it were true.

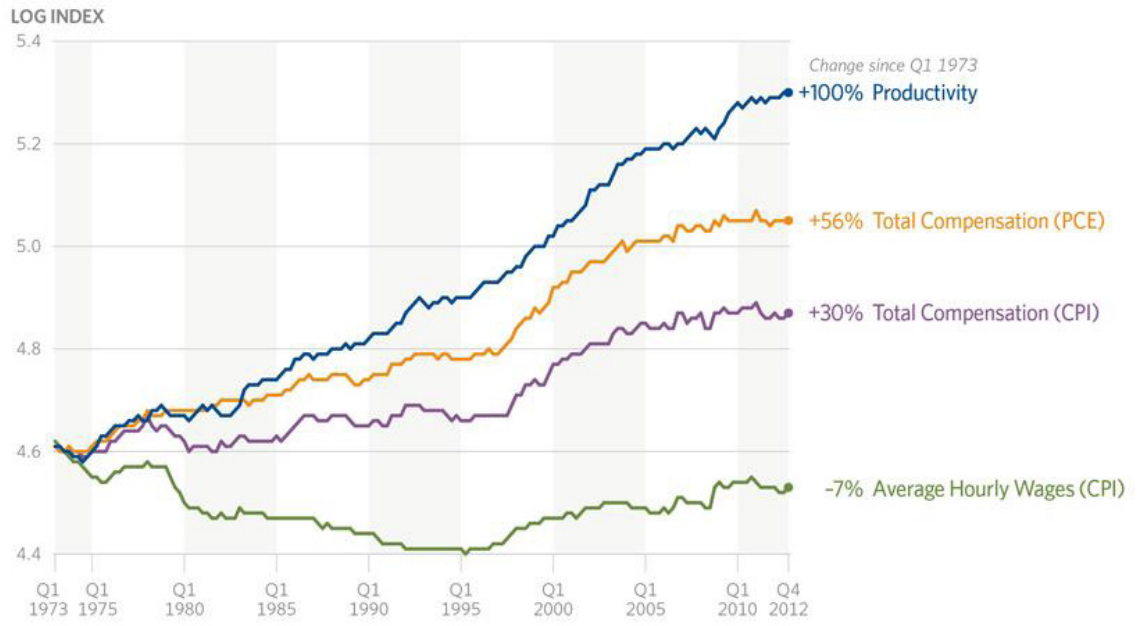
This analysis makes an apples to oranges comparison. These figures come from different data sets that measure different things, using very different methodologies. What I find in "Productivity and Compensation: Growing Together" is exactly what many of the Federal Reserve Banks, Martin Feldstein, and even liberal economist Dean Baker have found. When researchers compare the numbers carefully, they *can* make an apples to apples comparison. Such comparisons find pay and productivity track each other very closely.

One thing missing from Figure 9 is that the pay figure only counts about 60 percent of workers in the economy. Basically, it only measures hourly earners, not salaried employees. Also, there is something excluded from hourly wages: benefits. Figure 10 shows what happens when one includes total compensation, as well as the average hourly compensation of the entire economy. It shows that total compensation has not gone down, but actually risen 30 percent.

However, this adjusts for inflation using the Consumer Price Index. The CPI has a lot of problems, including formula issues. Indeed the CPI uses what econometricians and statisticians know to be a less accurate methodology when calculating inflation.

If analysts use a better measure of inflation, the Personal Consumption Expenditures Price Index, this eliminates some, but not all, of the bias in the inflation measurements. Using the PCE to calculate total

Figure II. Comparing Productivity with Total Compensation, Inflation-Adjusted with the Personal Consumption Expenditures Price Index (PCE)



Source: Heritage Foundation calculations using data from the U.S. Department of Labor, Bureau of Labor Statistics, "Productivity and Costs," http://www.bls.gov/lpc/data.htm (accessed June 15, 2013); and Bureau of Labor Statistics, Current Establishment Survey/Haver Analytics. Hourly wages are from the Current Establishment Survey and are defined as the average hourly earnings of production and nonsupervisory employees on nonfarm businesses.

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compensation, as shown in Figure 11, finds average hourly compensation has increased 56 percent—very different from the 7 percent drop the Left cites.

But still, even the PCE is not strictly comparable. The Bureau of Labor Statistics uses another measure of inflation to calculate productivity changes over time. The Bureau of Labor Statistics, quite sensibly, measures productivity inflation using changes in the costs of the goods a company sells.

If a person runs ACME widget factory and sells widgets in America, it really does not matter to that person how the price of oil imported from Saudi Arabia changes. That has no impact on their ability to pay employees wages or benefits. The only thing that matters, in terms of compensation decisions, is how much they can sell widgets for. The price of widgets determines the productivity of employees at this company. If people will pay more money for the widget, then effectively workers have become more productive. If people pay less for the widget, the value of their labor has gone down. Changes in prices of imported foreign goods really have no impact on the ability of companies to compensate their employees.

The BLS calculates inflation in its productivity figures by only looking at changes in the prices of goods that American workers produce. These prices differ from the price of goods Americans consume because of imports and exports.

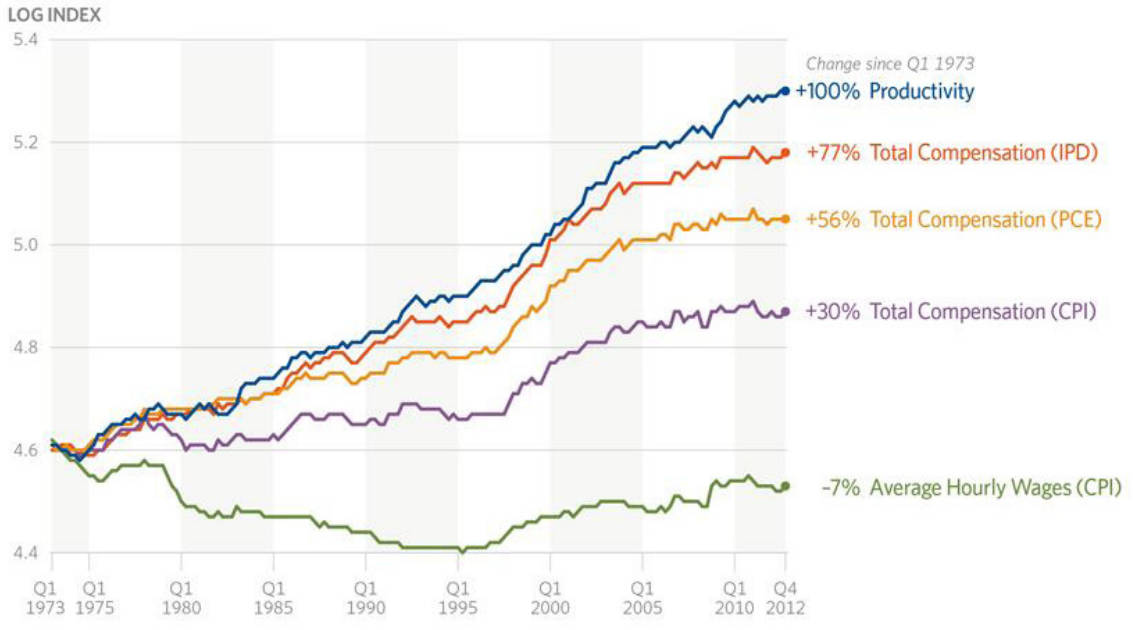
BLS does this with an inflation measure called the Implicit Price Deflator for Non-Farm Business. Basically, it only looks at the changes in goods produced by non-farm businesses in the United States. As shown in Figure 12, total compensation, on an apples to apples comparison, has increased 77 percent over the past 40 years. This is, again, very different

from the very first slide which showed wages falling 7 percent. Even this remaining 23 percent gap is exaggerated, for two reasons. The government productivity is mismeasured and overstated, because BLS is doing an incomplete job accounting for the prices of imported goods that have been used in production. Consider a widget factory that starts using cheaper inputs from China. The BLS does not capture the full cost-savings to employers. It appears to BLS that factories are producing more widgets at lower cost. This looks like increased productivity. However, the gains are coming from trade and the lower priced foreign goods, not worker productivity. This may account for about half of the remaining 23 point gap seen in Figure 12.

Another factor that has changed is depreciation. Today, businesses use a lot more computers and robots in production than 40 years ago. Buildings last for a while, while depreciation rates on buildings have not changed much. If a company built a manufacturing factory 20 years ago, that business could still use the same building and some of the heavy machinery today. What about computers? Would anyone want to use a 1994 computer to run a manufacturing facility? Computers and software depreciate. They do not last as long and they become obsolete faster. Even if a manufacturer had a 1994 computer in perfect condition, he still would not want to use it.

Depreciation rates have increased. But BLS measures productivity on the basis of gross productivity. They do not factor in changes in depreciation rates, only how many gross widgets get produced. If a company has to replace computers and machines every five years instead of every eight years, this does not affect gross productivity. However, when it comes to measure earned income, whether of investors, business owners, or workers, what matters is individual net productivity: what remains after the machinery and equipment used up in the process get replaced. Depending on how it is measured, depreciation ac-

Figure 12. Comparing Productivity with Total Compensation, Inflation-Adjusted with the Implicit Price Deflator (IPD)



Source: Heritage Foundation calculations using data from the U.S. Department of Labor, Bureau of Labor Statistics, "Productivity and Costs," http://www.bls.gov/lpc/data.htm (accessed June 15, 2013); and Bureau of Labor Statistics, Current Establishment Survey/Haver Analytics. Hourly wages are from the Current Establishment Survey and are defined as the average hourly earnings of production and nonsupervisory employees on nonfarm businesses.

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counts for another five points or so of the remaining gap between productivity and compensation.

So even the much smaller gap remaining in Figure 12 is exaggerated. Workers are indeed enjoying the fruits of their labor.

This is both good and bad news. Good because it means companies are not exploiting their workers. Bad because it means there are no easy solutions. If the minimum wage could simply be raised to $10 an hour, and people could just tell businesses, "You are making more, you have tons of profits, just pay more out of your profits," this would be easy to fix by changing the law.

The left repeats these claims over and over again. Productivity has gone up, but workers do not enjoy the fruits of their labor. So the government must step in. This would be a compelling argument—if only it were true.

In the actual world, the reason minimum wage workers do not earn much is that workers in those jobs have not become that much more productive over time. The data goes back to 1987, and if productivity in the fast food sector is examined, pay and productivity track almost one to one. Both have gone up about ten percent in inflation adjusted terms. If businesses have to pay employees $10 an hour when employees do not produce that value, they will spend a lot of time and money investing in labor-saving technologies and finding ways to make due with fewer workers.

The actual way to increase living standards is by increasing productivity. Things such as charter schools increase their student's productivity and economic mobility. There are studies about people who went to charter schools, in the mid-and late-1990s, and who are now in their 30s. Such people are experiencing measurably higher incomes than their peers who did not attend charter schools. The government should pursue these sorts of solutions. Make workers more productive, and competitive forces in the economy will force business to pay more. It would be nice if we could just raise the minimum wage and give workers more—the world, alas, does not work that way.

CHAPTER 8:
INEQUALITY AND RISK-TAKING IN A 21st CENTURY ECONOMY

Edward Conard, American Enterprise Institute

Understanding inequality requires proper measurement of both income and consumption, along with an understanding of the ever-changing determinates of income and its distribution. These determinates have changed significantly since the 1950s.

Information technology has opened an enormous window of investment opportunities and changed the nature of investment—from labor and capital-intensive manufacturing carried out by large companies, to idea-intensive opportunities like WhatsApp and Instagram. These opportunities require little unskilled labor and capital, and can be created and owned by individuals.

The rewards for properly trained talent have risen despite a large productivity-driven increase in their supply. This indicates investment opportunities have grown even faster than the productivity-enhanced supply of talent.

At the other end of the pay scale, circumstances that increased middle class pay have run their course. We saturated the population with education and discovered a large pool of talented, but uneducated workers whose productivity and pay rose substantially once educated. Today, the potential for further saturation is smaller. When technology hollowed out agriculture, it drove the rural population to the cities where they became much more productive. That one-time migration is over. And while the capital intensity of manufacturing continues to rise, it is no longer increasing the productivity of a growing proportion of unskilled workers.

At the same time, the United States has moved from a shortage of unskilled workers to a surplus. A lack of births during the Great Depression gave way to the baby boom after World War II and increased participation of women in the workforce. Over this period, a growing trade deficit exported jobs, and massive migration to the U.S. added to the supply of domestic workers. Today, the United States has 37 million foreign-born adults and 16 million native-born adult children of foreign-born parents. This growth in supply put pressure on the wages of unskilled workers.

Nevertheless, it is inaccurate to conclude that the middle and working classes have not benefited from innovation. The U.S. economy has grown about 75 percent since 1991; U.S. employment grew 50 percent since 1980. Over these same periods, the French and German economies grew by less than half that amount, Japan by less than a third. The U.S., moreover, achieved this growth with median incomes that were already 25 to 30 percent higher. In addition, had the United States not contributed a disproportionate share of global innovation—which helped Europe and Japan grow faster than they otherwise would have—the latter's growth relative to the U.S. would have been even slower.

Indeed, with a more restricted supply of labor, wages in the U.S. likely would have grown more. Yet even so, median incomes have grown nearly 40 percent since 1979— when healthcare and government benefits, like social security, are properly counted, and proper adjustments are made for family size.

Given this pronounced growth differential, it is far-fetched to claim rising "crony capitalism" in the United States accounts for growing income inequality. Had a misallocation of resources been the driver of greater U.S. income inequality, U.S. growth should have slowed relative to Europe and Japan, with more equally distributed incomes. Relative growth, however, accelerated.

Nor is there any credible evidence that U.S. income mobility has declined (another possible symptom of crony capitalism). In fact, U.S. mobility is identical to countries such as Denmark (with more equally distributed incomes)—except for the country's bottom 20 percent, where we see lower test scores, higher dropout rates, and much greater decimation of the family (factors which probably transcend economics).

More likely, incomes have risen because we have seen a rise in the opportunity cost of deploying a scarcity of properly trained talent. CEO pay has risen, for example, but not relative to the pay of the 0.1 percent, or relative to the pay of CEOs of privately owned companies.

In the United States, we also find that growth in the share of GDP earned by the one percent has largely come at the expense of the share of GDP earned by capital and not the share earned by the 99 percent. In both the United States and Germany, for example, the 99 percent earns about half of GDP, despite the fact that the one percent in the United States earns a larger share of GDP than does the one percent in Germany. In the United States, however, capital earns a smaller share of GDP than it earns in Germany. This may indicate that properly trained talent in the United States, which is more productive than its counterparts in Germany and elsewhere, may rightly have more negotiating leverage over investors. Regardless, the relative success of the one percent does not seem to have significantly affected the share of GDP earned by the 99 percent.

If circumstances have benefited the one percent disproportionately, why not tax and redistribute their good fortune? The slow growth of Europe and Japan should give one pause for concern. Nevertheless, there are two opposing theories. One side argues that Americans are inherently entrepreneurial and will continue to innovate, no matter the payoffs. The other side claims payoffs drive risk-taking like any game of chance; as such, culture is largely a by-product of incentives.

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Proponents of tax increases often point to the 1990s as evidence that taxes don't affect entrepreneurialism. They forget, however, that the invention of the Internet drove the NASDAQ from 800 to 4500. The resulting increase in the payoff for risk-taking—and we saw a large increase in entrepreneurialism—thus trumped any increase in the tax rate.

Proponents similarly point to the growth of Silicon Valley in California, where higher tax rates reign. Again, however, the payoffs for working in such a community of experts likely trumps any difference in state tax rates. (Where the payoffs are higher, we consistently see more entrepreneurialism.)

Consider, further, the "compounding effect" on state lotteries. When the size of the pool rises, ticket sales increase exponentially. The U.S. has undoubtedly benefited from the compounding effect on the payoffs for risk-taking.

Success is relative: one person's success raises the bar for others. Our most talented workers are working longer hours than their counterparts in Europe, and

with higher productivity than their counterparts in Japan. Our best students no longer want to be doctors and lawyers. They are going to business school.

Their success creates companies such as Google and Microsoft, as well as communities of experts, like Silicon Valley, which give our workers far more valuable on-the-job training. That training increases their chances of success and, in turn, the payoff for prudent risk-taking.

Meanwhile the success of these companies puts equity into the hands of successful entrepreneurs, who are more willing to underwrite the risks that produce innovation, and who are more skillful at choosing which risks to underwrite. It is no coincidence that the United States has more equity per employee and per dollar of GDP, while also growing faster than both Europe and Japan.

But this process is gradual and compounds slowly over time. The resulting increase in payoffs is affected by far more than just the tax rate. Without these compounding benefits, it is not as though Europe—absent similar infrastructure—can slash tax rates and immediately start growing as fast as the United States.

The financial crisis increased the importance of equity and risk-taking. With a finite capacity for bearing risk, when the economy eventually reawakened to the fact that banks were more unstable than expected, the economy, accordingly, dialed back risk-taking elsewhere to compensate. As a result, growth slowed, unemployment rose, and incomes declined.

Risk-averse savings sat unused for want of more equity to underwrite the risks of putting such savings back to work. Unconventional monetary policy, a growing level of public debt relative to GDP, and an increased regulatory burden, also added to the risks faced by our economy. Going forward, unless we mitigate some of these risks—or accumulate more equity per dollar of GDP and per employee—economic activity will, in the future, likely grow more slowly from a permanently lower base of demand.

ABOUT THE AUTHORS

Philip Armour – Cornell University

Philip Armour is currently a PhD candidate at Cornell University, jointly located in the Economics Department and the Department of Policy Analysis and Management. Prior to Cornell, he worked as a researcher at the Federal Reserve Bank of San Francisco, earned a Master's in Econometrics from the London School of Economics, and was a summer associate at the Congressional Budget Office. With Richard Burkhauser and Jeff Larrimore, Armour studies how different definitions of income can result in differences in trends in income growth and inequality in the US during the 20th and 21st centuries. Additionally, he is an expert in Social Security policy, in particular disability programs in the US, on which he wrote his dissertation. Armour will be receiving his PhD from Cornell this spring and will start as an Associate Economist at the RAND Corporation this coming fall.

Gerald Auten – U.S. Department of Treasury

Gerald Auten is a Senior Research Economist in the Office of Tax Analysis, U.S. Treasury Department. Previous positions include Senior Economist at the Council of Economic Advisors (2004-2005), Professor of Economics at Bowling Green State University, Assistant Professor at the University of Missouri-Columbia, and Brookings Economic Policy Fellow (1978-79). He has a Ph.D. in Economics from the University of Michigan (1972). Auten's research interests and publications include behavioral effects of income taxes, charitable contributions, capital gains, and income mobility.

Edward Conard – American Enterprise Institute

Ed Conard is a visiting scholar at the American Enterprise Institute. Conard is the author of the top-10 *New York Times best seller, Unintended Consequences: Why Everything You've Been Told About the Economy is Wrong*. Prior to writing his book, he was a partner at Bain Capital, where he headed Bain's New York office. Before joining Bain Capital in 1993, Conard worked for Wasserstein Perella, an investment bank, Bain & Company, a management consulting firm, and Ford Motor Company. He currently sits on the board of directors of Waters Corporation and Unisource. Conard graduated with distinction from Harvard Business School. He also has an undergraduate engineering degree from the University of Michigan.

Diana Furchtgott-Roth – Manhattan Institute

Diana Furchtgott-Roth, former chief economist of the U.S. Department of Labor, is director of Economics21, and senior fellow, at the Manhattan Institute for Policy Research. She has served in the White House as chief of staff of the Council of Economic Advisers under President George W. Bush, as deputy executive secretary of the Domestic Policy Council under President George H.W. Bush, and as an economist on President Reagan's Council of Economic Advisers. Furchtgott-Roth is the author, or coauthor, of five books—most recently, *Regulating to Disaster: How Green Jobs Policies Are Damaging America's Economy* (Encounter Books, 2012) and *Women's Figures: An Illustrated Guide to the Economic Progress of Women in America* (AEI Press, 2012). She is a contributing editor for RealClearMarkets.com and a columnist for The Examiner, Tax Notes, and MarketWatch.com. Furchtgott-Roth received her B.A. in economics from Swarthmore and her M.Phil. in economics from Oxford.

Bruce D. Meyer – University of Chicago

Bruce Meyer is the McCormick Foundation Professor at the Harris School of Public Policy Studies at the University of Chicago. He was a faculty member in the Economics Department at Northwestern University, from 1987 through 2004. Meyer has also been a visiting professor at Harvard University, University College London, and Princeton University; a faculty research fellow and research associate for the National Bureau of Economic Re-

search; a faculty fellow at the Institute for Policy Research; and an affiliate of the Institute for Research on Poverty and the Joint Center for Poverty Research. He has been an editor of the Journal of Public Economics, Journal of Business & Economic Statistics, Berkeley Journal of Economic Analysis and Policy, and Journal of Labor Economics. Meyer studies poverty and inequality, welfare policy, and the health-care safety net, among other topics. His most recent work includes: research on measuring poverty in the U.S.; the consequences of disability; the effects of welfare and tax reform on the well-being of single mothers; and the effects of Medicaid on child health. Meyer's work has appeared in the American Economic Review, Quarterly Journal of Economics, Econometrica, Journal of Labor Economics, Journal of Public Economics, and other refereed journals.

◆ James Sherk - Heritage Foundation

As senior policy analyst in labor economics at The Heritage Foundation, James Sherk researches ways to promote competition and mobility in the workforce. Sherk's recent writings address ways to help recipients of unemployment insurance return to work more quickly; why participation in the labor force dropped during the recession; and the economic consequences of raising the minimum wage. He frequently testifies before committees of Congress on labor policy issues. Sherk completed graduate studies at the University of Rochester, where he received a master of arts in economics, with a concentration in econometrics and labor economics. He also holds a bachelor's degree in economics and mathematics from Hillsdale College in Hillsdale, Mich.

◆ Scott Winship – Manhattan Institute

Scott Winship is a senior fellow at the Manhattan Institute. Previously a fellow at the Brookings Institution, his areas of expertise include living standards and economic mobility, inequality, and insecurity. Earlier in his career, Winship was research manager of the Economic Mobility Project of The Pew Charitable Trusts and a senior policy advisor at Third Way. His research has been published in National Affairs, National Review, The Wilson Quarterly, Breakthrough Journal, and Real Clear Markets, among other outlets. Winship received a B.A. in sociology and urban studies from Northwestern University and a Ph.D. in social policy from Harvard University.