

Inequality: Facts, Explanations, and Policies

Jason Furman
Chairman, Council of Economic Advisers

City College of New York
New York, NY
October 17, 2016

This is an expanded version of these remarks as prepared for delivery.

Good afternoon. I want to thank the Colin Powell School for Civic and Global Leadership, the Charles Rangel Center for Public Service, and the Zahn Innovation Center for inviting me here to City College. In my remarks today, I will discuss income inequality. I will begin by providing some basic facts about recent trends in inequality, as well as some new and suggestive evidence for some of the causes of the decades-long rise in inequality in the United States. I'll next turn to what role policy can play in pushing back against inequality, focusing both on actions that the Obama Administration has taken to limit increases in inequality and on further work to be done that builds on these successes by the Administration.

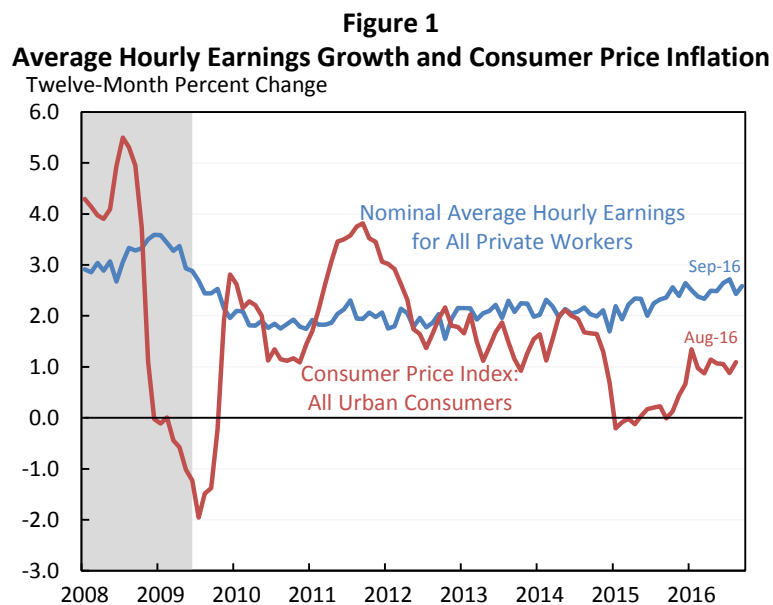
Although I will focus almost exclusively on income inequality, I want to stress at the outset that I see reducing inequality as just one part of a broader policy agenda to boost incomes for the American middle class and to help more Americans get into the middle class. As we at the Council of Economic Advisers (CEA) discussed in detail in the 2015 *Economic Report of the President*, rising middle-class incomes also depend critically on two other factors that I will not be discussing today: productivity growth and labor force participation (CEA 2015a). Labor productivity is a measure of how much output a worker produces in a single hour, and its growth rate has slowed in recent decades relative to earlier decades—putting downward pressure on overall wage growth and exacerbating the increasingly unequal distribution of wages. The labor force participation rate—the share of the adult population that is working or actively looking for work—has also declined in recent years, particularly among those in their prime working years (ages 25 to 54), meaning that fewer people in each household are working, which has also slowed household income growth.

I will begin my remarks today with some promising shorter-run trends in wages and incomes over the course of the recovery from the Great Recession, most notably the fact that the typical U.S. household saw the largest annual income gains on record in 2015 and the fact that this business cycle has seen the fastest real wage gains of any since the early 1970s. Next, I will present some basic facts about the longer-run rise, and currently high level, of inequality, noting that the United States has somewhat higher pre-tax inequality than other advanced economies but does much less to reduce this inequality with taxes and transfers and thus has much higher post-tax-and-transfer inequality than other countries. I will then discuss two potential causes for the increase in inequality in market incomes, a “traditional” explanation that focuses on the role of competitive markets in the distribution of income and a newer explanation that focuses on the role of market power and noncompetitive “rents” in the economy. Finally, I will discuss the substantial progress that the Obama Administration has made in fighting inequality, including

tax changes that have resulted in a larger shift of income to the bottom 99 percent of households than the tax changes of any Administration since at least 1960 and the largest investments in reducing inequality since the Great Society. Finally I will briefly outline an agenda for making further progress on combatting inequality in the years ahead, discussing how addressing growth and inequality can be complementary—and how to evaluate tradeoffs when they are not.

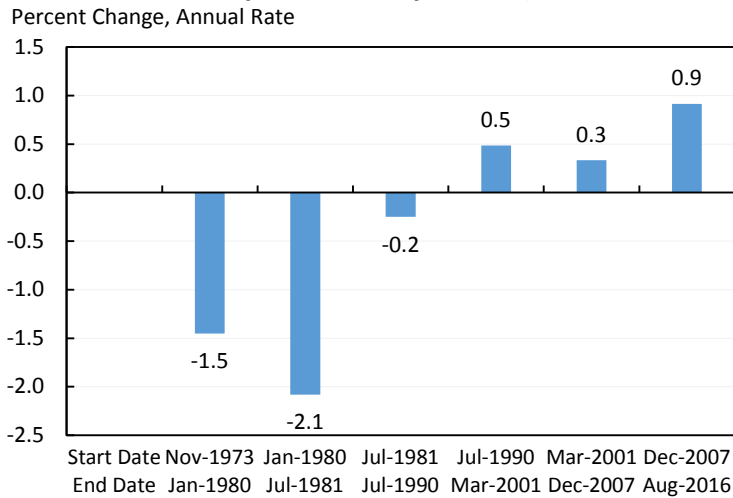
Recent Trends in Wages and Incomes

I want start by briefly touching on some encouraging recent developments in both wages and incomes. For more than three and a half years, American workers have seen sustained real wage gains, as hourly earnings have grown faster than inflation. As of September, nominal earnings for private-sector workers have increased at an annual rate of 2.8 percent so far in 2016, well above the pace of inflation (1.4 percent as of August, the latest data available). As Figure 1 shows, nominal wage growth has trended up over the course of the recovery as the labor market continues to strengthen amid robust job growth. At the same time, consumer price inflation fell sharply in 2014 and 2015 due to steep declines in energy prices. While inflation has picked up slightly in recent months as energy price declines have moderated, nominal earnings growth has continued its pickup, translating into continued real wage gains for workers.

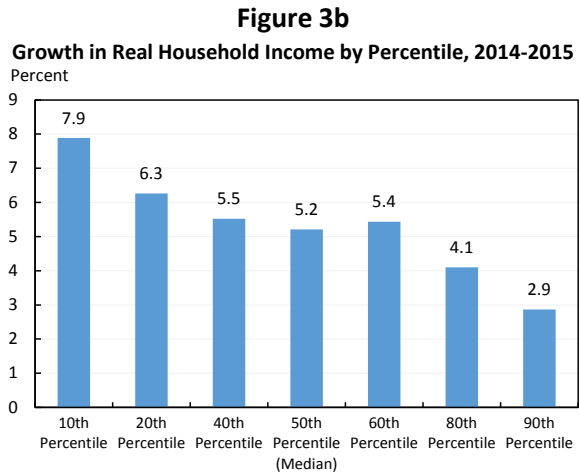
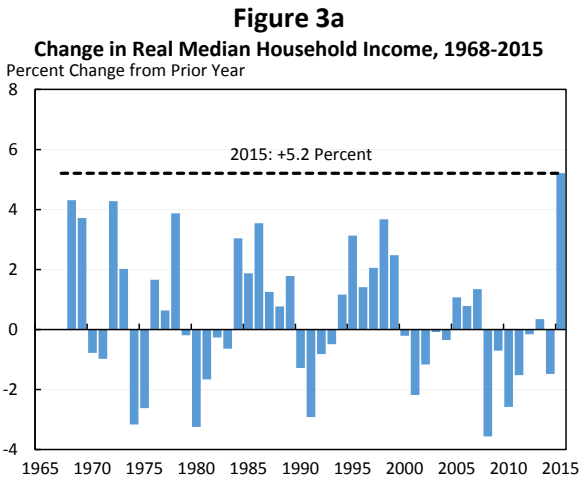


Perhaps most remarkably, real hourly wages have grown faster over the current business cycle than in any cycle since the early 1970s. Figure 2 plots the average annual growth of real hourly earnings for private production and nonsupervisory workers over each business cycle, including both recessions and recoveries. (Economists prefer comparing across entire business cycles, as they generally represent economically comparable periods.) Since the beginning of the current business cycle in December 2007, real wages have grown at a rate of 0.9 percent a year, faster than in any other cycle since 1973. In fact, since the end of 2012, real wages for non-managerial workers have grown 5.7 percent in total, exceeding the 2.1-percent total real wage growth from the business cycle peak in 1980 to the business cycle peak in 2007.

Figure 2
Real Hourly Wage Growth Over Business Cycles
(Cycle Peak to Cycle Peak)



Rising real wages, combined with continued strong employment growth, have translated into increased incomes for American families. In September, the Census Bureau reported that real median household income increased by \$2,800, or 5.2 percent, between 2014 and 2015, the largest annual increase on record (Figure 3a). Most notably for the purposes of my remarks today on inequality, while households across the income distribution saw increases in real incomes in 2015, the largest gains actually went to households at the bottom and middle of the distribution (Figure 3b).



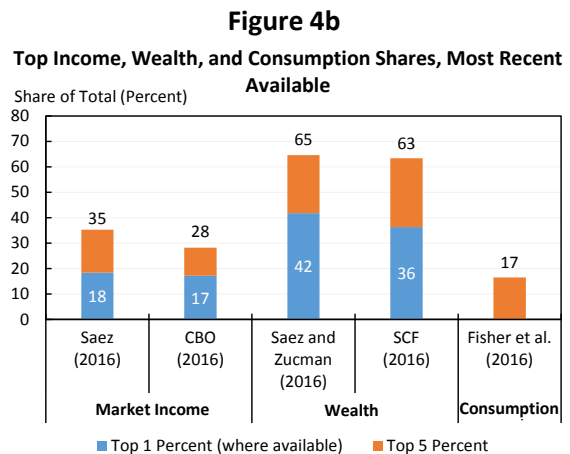
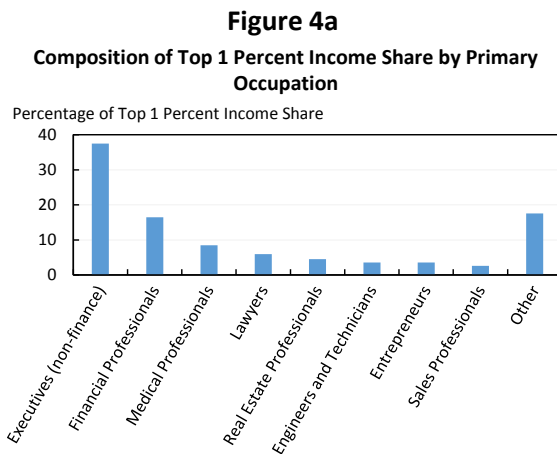
These developments are promising, and they speak to the remarkable progress that American families have made as the recovery from the Great Recession continues to strengthen. But we have only just begun to address the decades-long trends of slow income growth and current high levels of inequality.

Facts About Inequality

The Level and Rise of Inequality in the United States

Economic inequality today reflects market outcomes that are deeply unequal. For instance, according to the widely cited numbers maintained by Emanuel Saez (and originally published with Thomas Piketty), the top 1 percent of families receive 18 percent of total income before taxes and transfers, and in fact the top 0.1 percent alone account for almost half of this share. Given what we know about the composition of the top 1 percent (shown in Figure 4a), this means that nearly 20 cents of every dollar earned in the United States flows to a small group made up primarily of the highest-earning executives and financial professionals (Bakija, Cole, and Heim 2012).

When unequally distributed income is saved over time, it generally results in a distribution of wealth that is even more concentrated.¹ Wealth is harder to measure, but extrapolations by Saez and Gabriel Zucman estimate that the top 1 percent of families owned 42 percent of national wealth in 2015 (of which more than half is held by the top 0.1 percent), while a survey by the Federal Reserve puts the number at 36 percent.² Patterns in consumption, which economists consider an important proxy for material well-being, are also characterized by extreme skewness (Figure 4b).



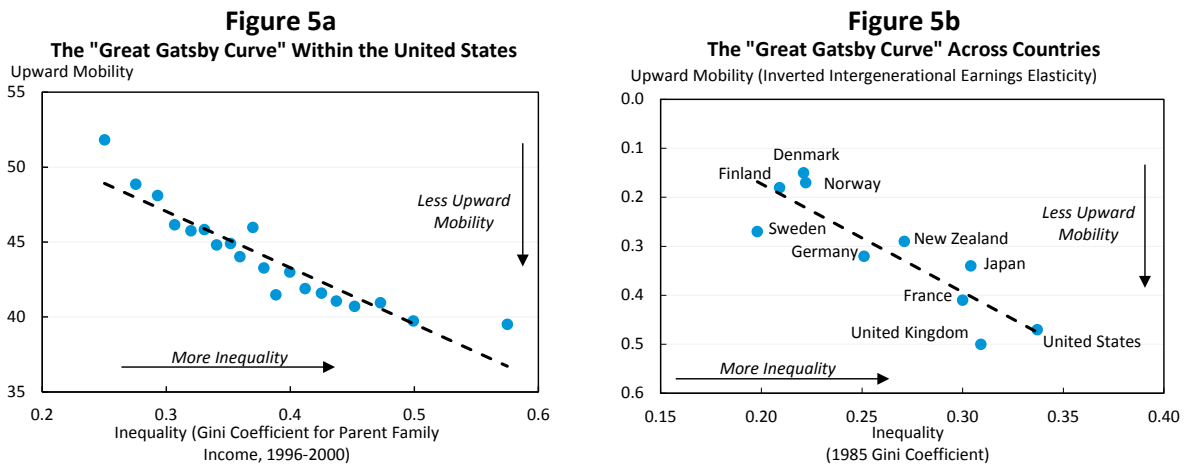
Measures of inequality are not just high, but they have also increased in recent decades. For example, this is true of market incomes, where the share going to the top 1 percent has risen from 8 percent in 1979 to 18 percent in 2015. It is also true of a wide range of other measures shown in Appendix Table 1, including disparities in certain pay gaps and health outcomes. There are areas of progress—the gender pay gap has narrowed in recent decades, even as it remains too large (CEA 2016b), and trends in infant mortality show improvement—but inequality on net has gone up no matter which way one slices the data.

¹ This is in part because higher-income individuals typically have a higher propensity to save. Higher-income individuals also differentially benefit from access to certain forms of investments and wealth planning.

² These estimates differ somewhat for a number of conceptual and methodological reasons, including varying income definitions, data sources, and units of analysis.

The increased level of inequality has resulted in material costs to the lived experiences of millions of Americans. By one calculation, CEA has found that if inequality had not increased from 1979 to 2015, income for the typical household in 2015 would have been about 19 percent, or \$10,000, higher. In many instances, these inequality trends interact with and exacerbate one another. Recent research has suggested widening inequality in middle-age life expectancies is rendering transfer programs like Social Security and Medicare increasingly less progressive, as higher-income individuals live longer and therefore claim an increasing share of benefits (NAS 2015; Bosworth, Burtless, and Zhang 2016).

To be clear, some inequality is inevitable and desirable. And there is no universally agreed-upon answer to what the “right” level of inequality should be. It is notable that a recent survey attests that Americans’ idealized wealth distribution is far more equitable than the one we see today, but this is a subject up for continued debate (Norton and Ariely 2011). Nevertheless, the scope and scale of these numbers suggest that not only is current growth not broadly shared, but we also fall well short of the ideal of equal opportunity. In fact, as Figure 5a and Figure 5b show, counties and countries with higher levels of inequality tend to also have less upward mobility, a relationship that Alan Krueger has dubbed the “Great Gatsby curve.”



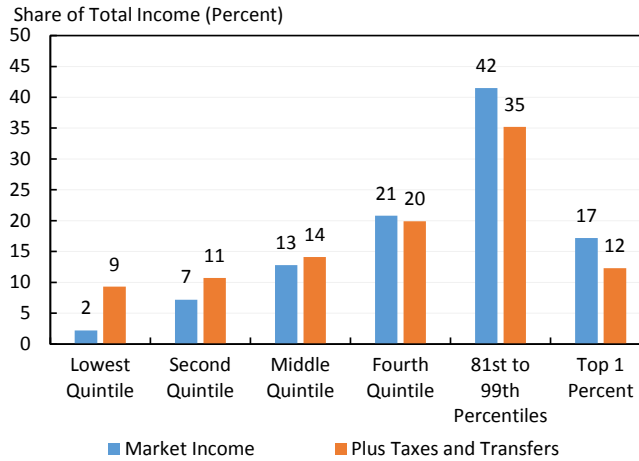
The Role of Taxes and Transfers in Reducing Inequality

Tax and transfer policies already play a critical role in ameliorating this challenge and curbing market inequality. For example, the most recent data from the Congressional Budget Office (CBO) indicate that the top 1 percent of households receive 17 percent of income, similar to the Saez estimates discussed earlier.³ But taking into account cash and in-kind government transfers like Social Security, Medicare and Medicaid, and the Supplemental Nutrition Assistance Program (SNAP, also known as “food stamps”) that boost incomes of households at the bottom, as well as taxes that disproportionately affect households at the top, the after-tax-and-transfer share of income for the top 1 percent falls to 12 percent (Figure 6). Taxes and transfers have an

³ Whereas CBO data characterizes the distribution of households, Saez’s work focuses on families as the unit of analysis. Moreover, income definitions and ranking methodologies vary between the two sources. For these reasons, reported top income shares differ somewhat between CBO’s data and Saez’s.

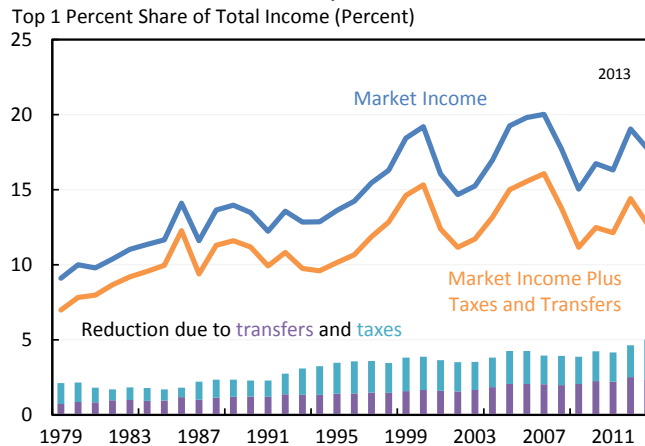
even more dramatic effect at the other end of the distribution, boosting the share of incomes received by the bottom 20 percent of households by seven percentage points, or about \$24,000 per year on average.

Figure 6
Income Shares under Tax and Transfer Policies, 2013



Still, while Federal tax and transfer policy substantially reduces inequality at any point in time, it offers only a partial correction for the large disparities in market outcomes.⁴ Moreover, the inequality reduction of taxes and transfers has not kept pace with the growth in market inequality in recent decades. As a result, even on a post-tax-and-transfer basis, inequality as measured by the share of income accruing to the top 1 percent has grown considerably since the 1970s (Figure 7).⁵

Figure 7
Top 1 Percent Share of Income and the Effects of Taxes and Transfers, 1979-2013



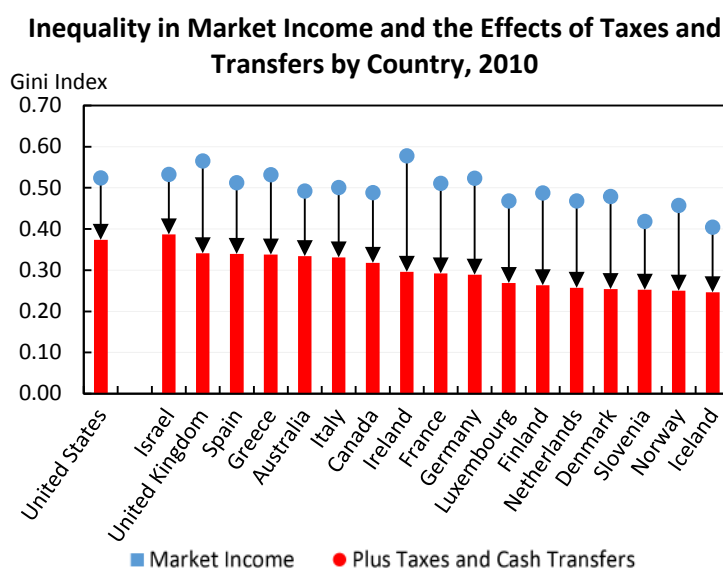
⁴ CBO data account for Federal, State, and local transfers, but they do not incorporate the effects of State and local taxes. The focus here is on Federal policies.

⁵ Other inequality measures, such as the Gini index, also show large increases over this period. The Gini index is a summary measure of inequality that ranges from 0 to 1, with higher values indicating greater inequality.

U.S. Inequality in International Perspective

The Luxembourg Income Study (LIS), which is partly housed at City University of New York’s Stone Center and which for decades has been spearheading work charting the evolution of cross-country inequality, shows us within an international context just how much room for improvement remains for the United States. In fact, the United States has relatively high inequality of market income compared to other advanced economies—though we are still less unequal than the United Kingdom, Israel, and Ireland.⁶ But as Figure 8 shows, our tax and transfer system does much less to reduce inequality, and thus we are left with the highest after-tax-and-transfer inequality of any of the major advanced economies in the LIS with the exception of Israel.

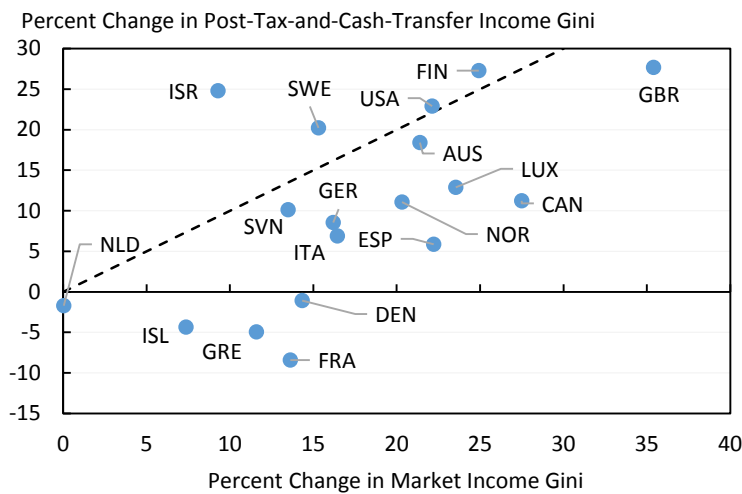
Figure 8



Moreover, most advanced economies have seen increases in market inequality between the first and last available waves of LIS data, as shown in Figure 9. But in the majority of these cases, the tax and transfer system also increased in effective progressivity, blunting a substantial portion of the increase in inequality (for example, Canada and Norway) or even more than offsetting it and actually reducing inequality on a post-tax-and-transfer basis (for example, Denmark and France). In contrast, in the United States both market and after-tax inequality over the LIS have risen by roughly the same amount, about 30 percent. Some countries have fared much worse, with inequality rising even more rapidly in after-tax terms than before taxes and transfers (for example, Israel and Sweden).

⁶ Market income in the LIS differs from both the CBO and the Saez estimates, primarily by way of source data and differing income concepts (for example, exclusion of capital gains income). The study’s tax and transfer measures also differ somewhat from CBO’s—not incorporating, for instance, in-kind universal transfers (for example, public health insurance programs like Medicare).

Figure 9
Change in Income Inequality Between First and Last Available
Waves of Luxembourg Income Study, by Country



It is hard not to come away from these data with the sense that much more can be done around the world—and here in the United States—to better insulate families from rapidly diverging market outcomes.

Explanations for the Rise in Market-Income Inequality

A number of different explanations have been put forward for increased inequality. This rise has been so large, and can be seen across so many socioeconomic indicators, that many, if not most, of these explanations may be playing a role. I will briefly outline two classes of explanations: “traditional” economic explanations grounded in competitive markets, and a newer emphasis on the role of market power and economic rents as a potential source of rising inequality.

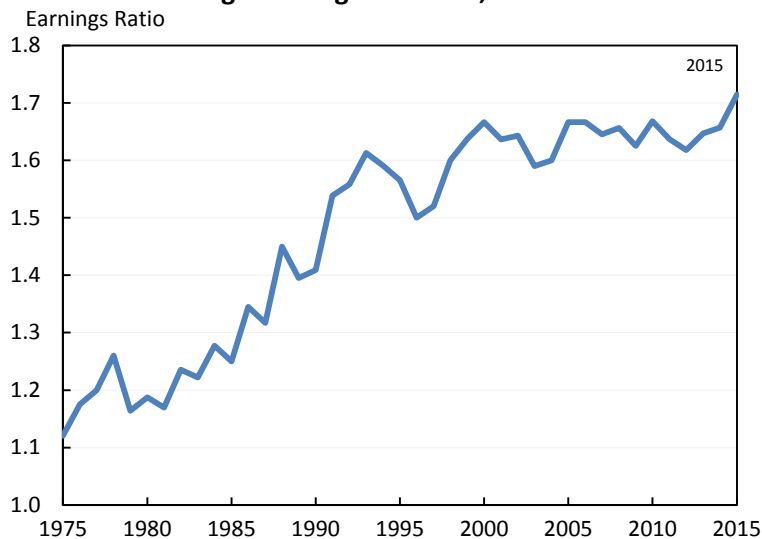
The Competitive Explanation

Traditional economic explanations of inequality are grounded in competitive markets, wherein workers receive wages commensurate with their productivity. According to this explanation, a combination of skill-biased technological change that increased the demand for skilled workers and a slowdown in the increase in educational attainment that reduced their supply resulted in higher relative wages for this group. In addition, globalization may also have effectively put more less-skilled workers around the world into competition with U.S. workers, further exacerbating inequality.

Many economists have pointed to the role of technology in increasing inequality (Autor, Katz, and Kearney 2008; Autor 2015). This argument asserts that technology can most readily replace labor in tasks that are easily automated, which tend to involve routine tasks that place them in the middle of the skill and wage distributions. Over time, employment moves to both the lower and higher ends of the occupational skill ranking. While technology is a better replacement for tasks that are easy to routinize, it complements the abilities of highly skilled workers and improves

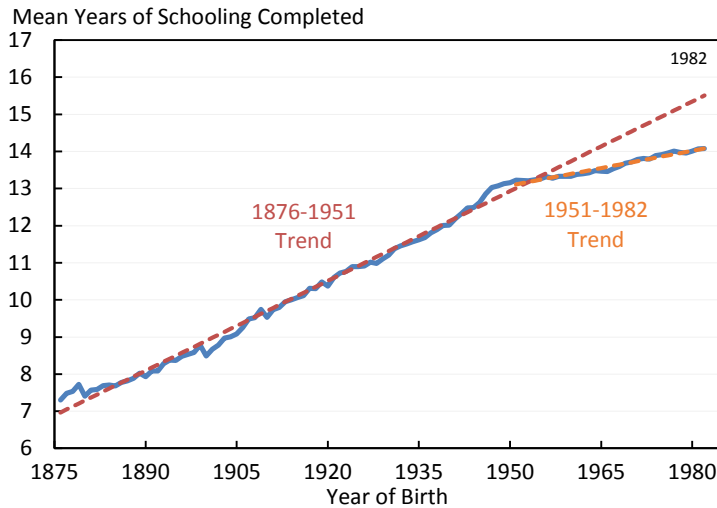
their productivity, thereby increasing their earnings and employment opportunities. Lower-skilled workers are not necessarily made more productive, but neither are they easily replaced, as their jobs often include interpersonal interactions and variable situations that are difficult to automate. Taken together, this view of the role of technology points to both rising inequality and rising job polarization. As Figure 10 shows, the college earnings premium—the ratio of the typical college graduate’s earnings to the typical high school graduate’s—has increased dramatically in recent decades, pointing to greater returns to higher skills.

Figure 10
College Earnings Premium, 1975-2015



The college earnings premium has also been boosted by a slowdown in the rate of increase in educational attainment. Schooling attainment rose for much of the 20th century, in part due to measures like the G.I. Bill, the expansion of high schools and community colleges, greater educational attainment by women, and deferments from the Vietnam draft for men. However, growth in years of schooling slowed substantially towards the end of the 20th century. From the cohort of individuals born in 1876 to those born in 1951, according to estimates by economists Claudia Goldin and Lawrence Katz shown in Figure 11, individuals completed 0.4 more years of schooling by age 30 on average than those born five years before. Beginning with those born in 1951, however, that rate slowed to just 0.2 years. While the pool of skilled workers is still growing, in recent decades it has grown at a slower rate than has the demand for these workers, increasing the wage premium that more educated workers command and thus raising inequality.

Figure 11
Mean Years of Schooling at Age 30, U.S. Native-Born,
by Year of Birth, 1876-1982



The Rents Explanation

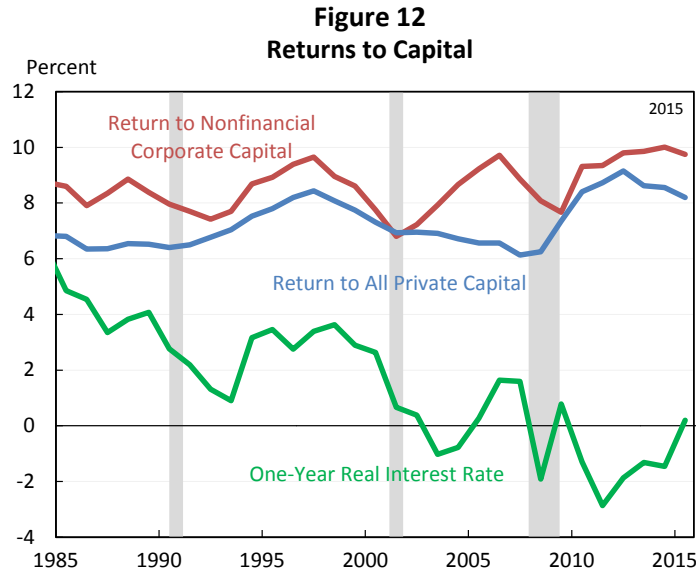
A number of economists have recently pointed to economic rents as another potential source of inequality (Stiglitz 2012; Furman and Orszag 2015). Rents occur whenever capital owners or workers receive more income than they would require to undertake their production or work. Rents could play a role in rising inequality either to the degree that the division of rents is becoming increasingly unequal or to the degree they are increasing and being captured by capital or by high earners. While the competitive explanation may ultimately be more important quantitatively, the “rents explanation” is an intriguing and potentially important line of research, and so I will spend a few moments outlining it in greater detail. Moreover, to the degree that rents are playing a role in rising inequality, this explanation suggests that a broader set of policies could potentially improve both efficiency and equity, a point to which I will return.

Evidence for Increased Market Power by Firms

There is evidence that increased concentration in product markets in the United States is generating additional rents. Between 1997 and 2012, market concentration increased in 12 out of 13 sectors for which data are available, and a range of micro-level studies of sectors including air travel, telecommunications, banking, and food-processing have all found evidence of greater concentration (CEA 2016a).

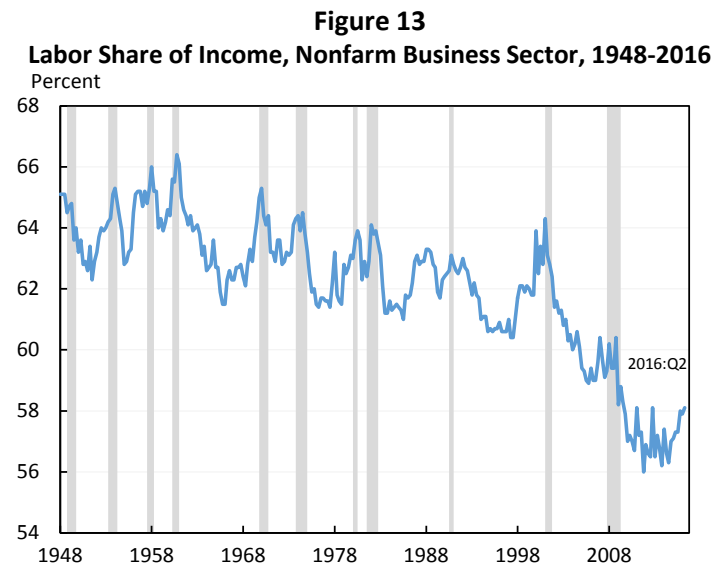
It is not just data on concentration that provide evidence of rents. The sheer growth in the size of the financial sector as a share of the economy in recent decades raises the possibility that some of the financialization of the economy has been the result of increased rent-seeking rather than productive activity. This includes unproductive allocation of human capital, such as the preponderance of highly-skilled young people who are motivated by high wages to seek careers in financial services rather than other, more productive sectors of the economy.

These microeconomic trends may explain why even as the safe rate of return, as measured by government bonds, has fallen steadily since the 1980s, the rate of return on capital has held steady or even risen, as shown in Figure 12—mirroring the rise in the share of income going to capital instead of labor.



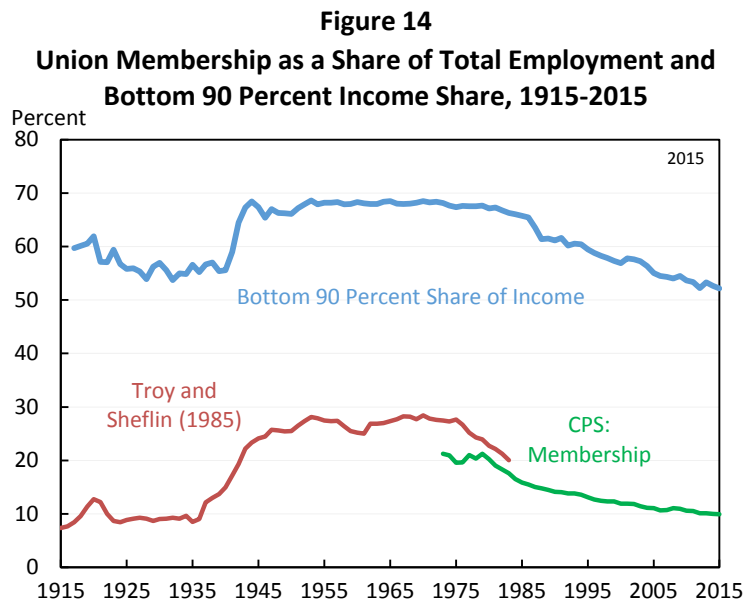
The Reduced Share of Income Going to Labor

The increased market power of firms has played a role in reducing the share of income going to labor while increasing the share of labor going to capital, a phenomenon shown in Figure 13. This trend increases inequality because ownership of capital is highly unequal, so shifting income towards capital results in more inequality overall.



In part, this shift can be traced to reduced competition among firms, since more concentrated firms have more ability to collude, explicitly or tacitly, in setting lower wages for workers. Moreover, with fewer competitors there is less ability of a worker to shift jobs or use the threat of shifting jobs as leverage for a wage increase.

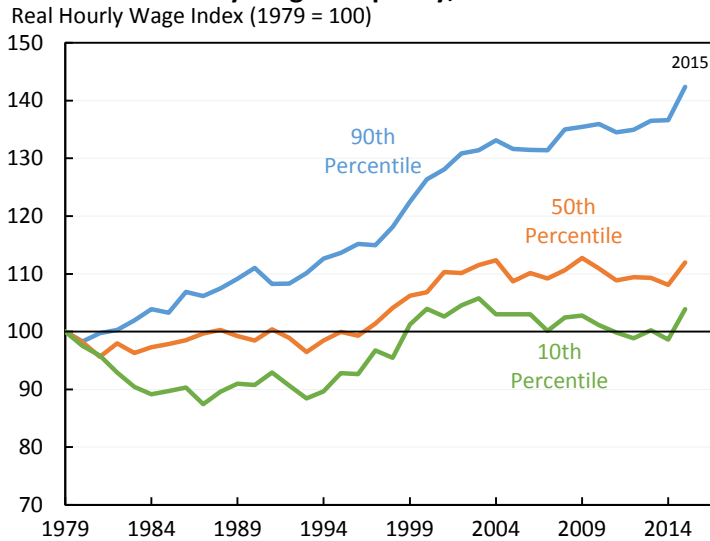
But this shift has also been exacerbated by reductions in the institutional power of labor to bargain effectively. Unionization and collective bargaining—along with policies like the minimum wage—help level the playing field, concentrating labor and encouraging the firm to share the inevitable rents created in the labor matching process with labor. This process helps bolster the wages of lower- and middle-wage workers, thereby reducing inequality. However in the United States union membership has declined consistently since the 1970s, as Figure 14 shows: approximately a quarter of all U.S. workers belonged to a union in 1955, but by 2015 union membership had dropped to just below 10 percent of total employment, roughly the same level as the mid-1930s. In some states, just 3 percent of workers belong to unions (CEA 2015b). One study has found that declining unionization accounts for between a fifth and a third of the increase in U.S. inequality since the 1970s (Western and Rosenfeld 2011).



Increased Earnings Inequality

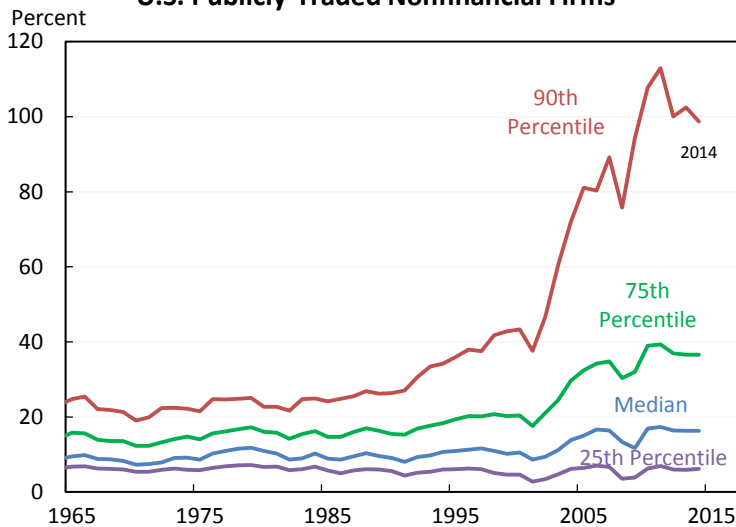
Much of the increase in inequality stems from increased inequality within labor income—that is high-paid managers getting paid increasingly more relative to workers further down in the earnings distribution, as shown in Figure 15. Rents may be playing a role here, too. All of the same shifts in relative bargaining power that are likely partly responsible for shifting income from labor to capital may also be working to shift income from low-paid labor to high-paid labor.

Figure 15
Hourly Wage Inequality, 1979-2015



Moreover, the rate of return on invested capital has diverged enormously across firms, with the typical firm seeing a modest increase in its return but a small number of “super-successful” firms seeing extremely large increases in theirs (Figure 16). This trend may also at least partially reflect increased concentration and the role of economic rents. And the rise of these super-successful firms may also be contributing to earnings inequality, as successful firms are able to share rents with their workers by paying them more than they would receive if they were employed at less-successful firms (Furman and Orszag 2015; Barth et al. 2016; Song et al. 2016).

Figure 16
Return on Invested Capital Excluding Goodwill,
U.S. Publicly-Traded Nonfinancial Firms



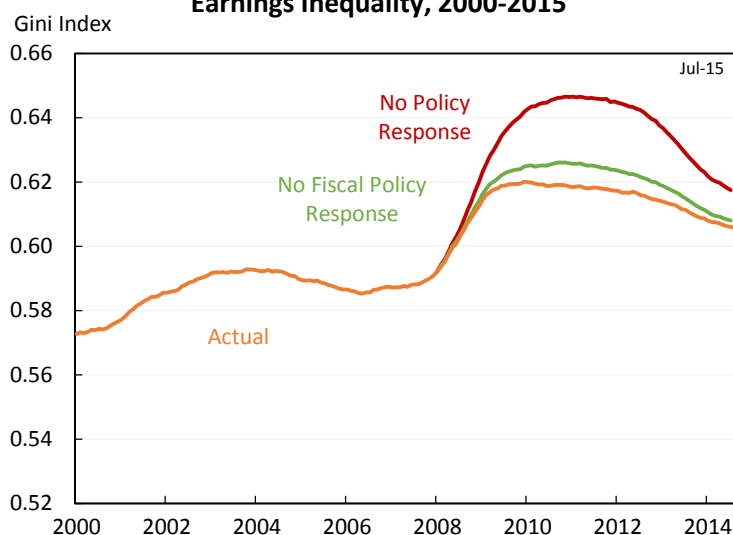
What the Obama Administration Has Done About Inequality

Over the last eight years, the Obama Administration has taken a number of crucial steps to reduce inequality, including actions with more immediate effects, such as fostering a recovery from the deep recession, spurring State action to raise minimum wages and making the largest investments in combatting inequality since the Great Society in the 1960s. At the same time, we have taken actions with longer-term effects, such as improving our educational system. Though the level of inequality remains unacceptably high, and much more work remains to be done to address this defining challenge, the policies of this Administration collectively represent a historic achievement in reducing inequality.

A Stronger Macroeconomy Reduces Inequality

When the President took office in January 2009, the country was experiencing the worst economic and financial crisis since the Great Depression—one whose onset was in many respects even worse than the Depression. Earnings inequality was surging as more and more workers lost their jobs and saw their earnings fall to zero.⁷ By immediately taking aggressive action to restore economic stability, the Obama Administration sharply limited the extent to which inequality rose during the Great Recession and its aftermath. Taken together, the Recovery Act and subsequent fiscal measures, bank stress tests and other financial policy measures, support for the auto industry, and the actions of the Federal Reserve kept the unemployment rate 6 percentage points lower than it would have been between 2010 and 2012 and raised employment by 9 million jobs each year over this timespan (Blinder and Zandi 2015). By reducing unemployment, these actions ultimately offset roughly half of the increase in earnings inequality that would otherwise have occurred during the Great Recession (Figure 17).

Figure 17
Earnings Inequality, 2000-2015

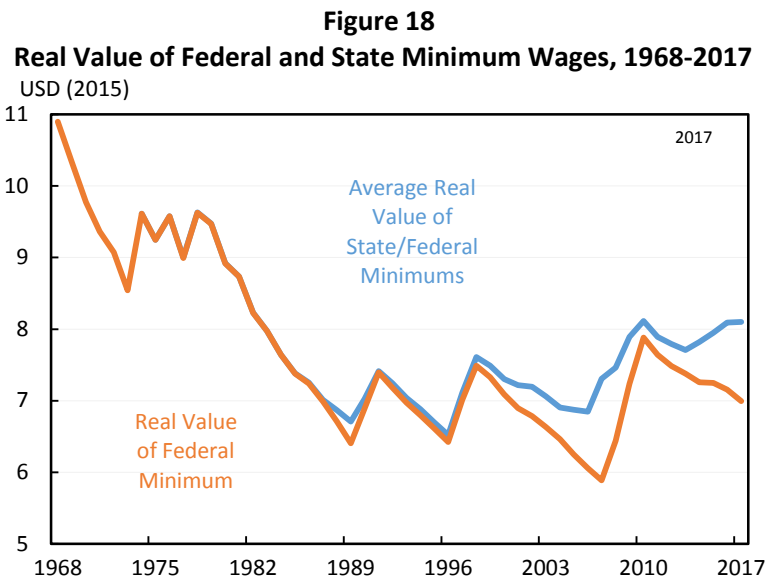


⁷ While earnings inequality as measured by the Gini index for weekly earnings increases during recessions, other measures of inequality can decrease, particularly those that rely on more comprehensive definitions of income, that are more sensitive to changes in average incomes for the highest-income families, or that measure incomes over longer periods of time.

In addition to their effects on unemployment and earnings, the Administration’s actions reduced inequality by providing financial support for struggling families during the downturn. This included not only tax cuts for working and middle-class families, but also extensions to unemployment insurance, expanded SNAP benefits, and temporary support for states to sustain Medicaid coverage, among other measures. All told, these investments, along with the existing social insurance system, offset nearly 90 percent of the increase in poverty that would have otherwise occurred in the wake of the crisis, even without accounting for any impact they had in moderating the Great Recession itself (CEA 2014).

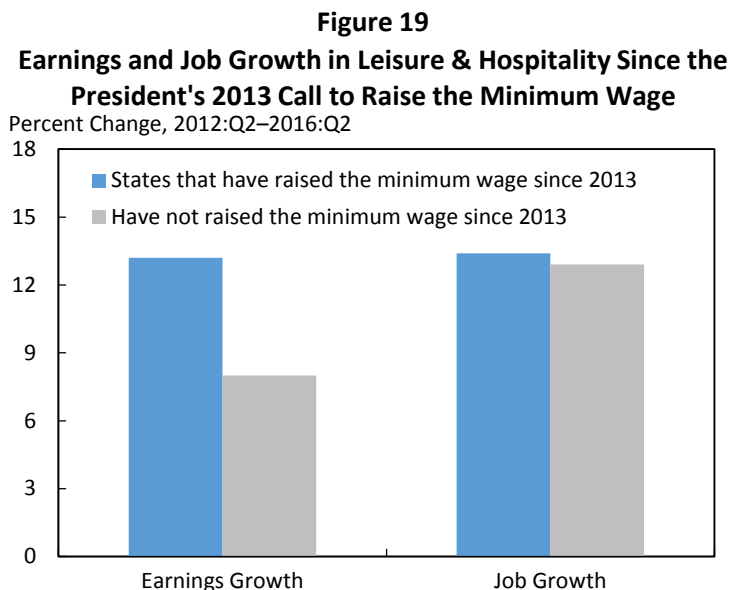
Raising Market Incomes in the Short and Long Run

Even in our now-growing economy, well-paying jobs are essential to reducing inequality. However, too many hardworking Americans continue to work for a wage that is too low. Because increasing the Federal minimum wage would be an important step in addressing the insufficient rate of wage growth in recent decades, the President called for a minimum wage increase in his State of the Union address in February 2013, and while Congress has not acted, 18 States, the District of Columbia and more than 50 communities have enacted legislation raising their minimum wages since that time. In part due to these increases, the decline in the average value of the effective minimum wage (the higher of the Federal and State minimum wage in each State weighted by worker hours) has been reversed, and the average effective minimum wage has now reached roughly the same inflation-adjusted value it had in 2009 when the Federal minimum was last increased, but it is still 26 percent below the Federal value in the 1960s (Figure 18).



These increases by States in their minimum wages have led to meaningful growth in earnings, especially among workers in the leisure and hospitality industry, who tend to be lower-paid than workers in other sectors. As Figure 19 shows, in States that raised their minimum wage, these workers have seen earnings growth of 13 percent, compared to 8 percent among workers in

States that did not raise their minimum wages. Moreover, during this same period, there was no statistically significant difference in the rate of job growth for these workers between the two groups of States, suggesting that these wage gains have not come at the expense of employment—consistent with a long line of research on earlier minimum wage increases (Doucouliagos and Stanley 2009; Card and Krueger 2016). This progress is an argument for the Federal government to raise the minimum wage, as it still remains too low in much of the country.



In contrast to economic recovery and minimum wage increases, which generate immediate reductions in inequality, educational investments pay off over a longer time horizon and for this reason are critical for ensuring opportunity for children today while reducing inequality over the long term. At its outset, the Administration committed to making these investments throughout all levels of education, from early childhood to college. Since 2013, the Administration has invested \$750 million in high-quality early education programs, including through Early Head Start-Child Care Partnerships for infants and toddlers and through Preschool Development Grants. As a result, all but four States today are investing in preschool, with more than 40 percent of four-year-olds in the United States enrolled in publicly funded preschool. At the other end of the education pipeline, the administration has also made progress in promoting college opportunity, affordability, and completion by expanding investments in Pell Grants and tax credits; making student loans more affordable by cutting interest rates and allowing borrowers to cap student loan payments at 10 percent of income; and making access to financial aid and college information simpler and faster.

Reducing After-Tax-and-Transfer Inequality Through a More Progressive Fiscal System

Perhaps the Administration’s quantitatively largest—and certainly easiest-to-quantify—inequality-reducing investments are its tax and transfer policies, including the coverage provisions of the Affordable Care Act (ACA), expanded tax credits for working families, and

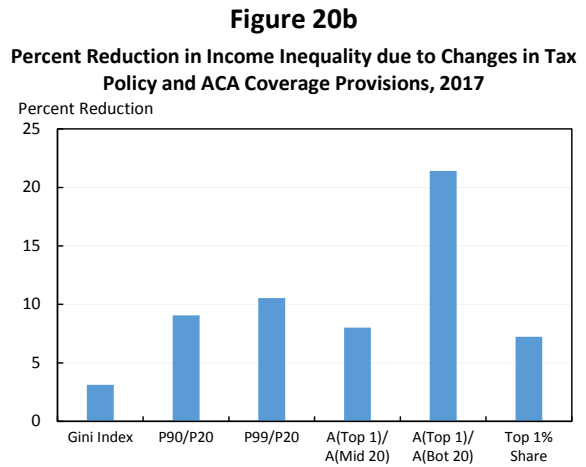
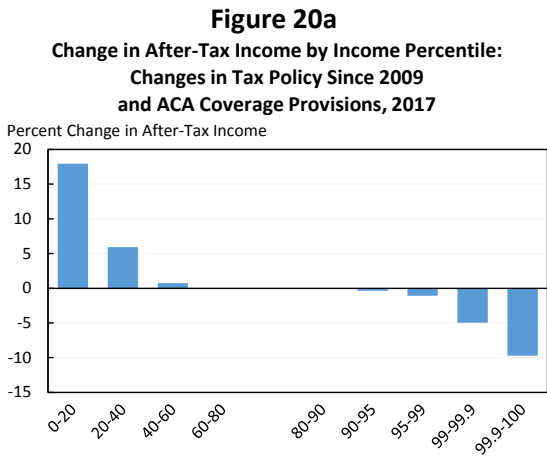
higher tax rates on high-income households.⁸ The ACA has substantially reduced inequality in access to health care, increasing the number of Americans with health insurance by 20 million as of early 2016 and contributing to the largest drop in the share of the population without health insurance since the creation of Medicare and Medicaid in the 1960s, with the largest declines in uninsured rates for States or populations with the highest uninsured rates to begin with (Furman and Fiedler 2014; Uberoi, Finegold, and Gee 2016). Moreover, the Federal support for States that expand their Medicaid programs and financial assistance for people purchasing coverage in the individual market that made this coverage expansion possible directly reduced income inequality.

In concert with the effects of the ACA coverage provisions, changes in tax policy since 2009 will by 2017 boost incomes for families in the bottom quintile (that bottom 20 percent) by 18 percent, or \$2,200 (the equivalent to about a decade of income gains), and in the second quintile by about 6 percent, or \$1,500, relative to what they would have been under the continuation of 2008 policies (Figure 20a).⁹ These policy changes primarily include the expansion of the Child Tax Credit (CTC) for low-income working families and the expansion of the Earned Income Tax Credit (EITC) for families with three or more children that were first enacted as part of the Recovery Act.¹⁰ They also encompass a permanent extension of expiring tax cuts for middle-class families and the restoration of Clinton-era tax rates for the highest-income families—which in combination with an extension of Medicare taxes to cover the investment income of high-income families has returned effective tax rates on high-income Americans to the level that prevailed in the 1990s. The robust reduction in inequality resulting from these policies is apparent across a wide range of measures of inequality (Figure 20b), including the Gini index, ratios of the after-tax income at different points in the distribution of income, and income shares.

⁸ The ACA coverage provisions include expanded Medicaid eligibility, the Premium Tax Credit, cost-sharing reductions, small employer tax credits, the individual shared responsibility payment, and the employer shared responsibility payment.

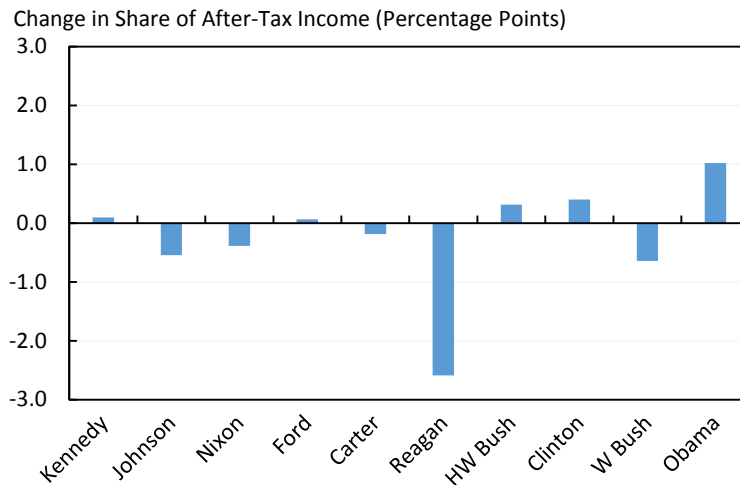
⁹ The impact of these changes in tax policy is measured relative to a policy counterfactual in which 2008 tax policy remains in place. This policy counterfactual assumes the extension of the major individual and estate tax cuts scheduled to expire at the end of 2010; a set of individual, business, and energy tax provisions that have been regularly extended by Congress in the past (referred to as “extenders”); a set of provisions limiting the scope of the individual Alternative Minimum Tax; and the Federal Unemployment Tax Act surtax.

¹⁰ These estimates do not take into account the additional, temporary income boosts these families saw due to the temporary tax cuts enacted earlier in the Administration, including the Making Work Pay credit and the payroll tax holiday that have now expired.



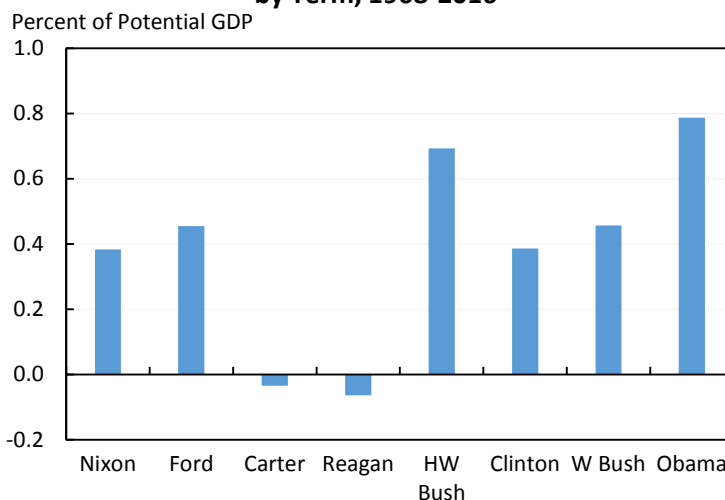
The magnitude of these policies in reducing inequality is apparent in historical context. Namely, the decrease in income inequality resulting from changes in tax and transfer policy since 2009 is large not only in absolute terms but also relative to previous Federal action to reduce inequality. The tax changes alone enacted during this Administration have had historically large effects on the distribution of income, increasing the share of income accruing to the bottom 99 percent of Americans by about 1 percentage point, an inequality-reducing shift in the tax burden more than twice as large as that achieved during the Clinton Administration, which ranks second by this measure of any Administration since at least 1960 (Figure 21).

Figure 21
Change in Bottom 99% Share of After-Tax Income for a Fixed
Pre-Tax Income Distribution, 1960-2016



However, in addition to inequality-reducing changes in tax policy, the Administration has also put into place a historic investment in Federal anti-inequality transfer programs.¹¹ Under President Obama, the Federal investment in inequality-reducing transfers has increased by about 0.8 percent of potential GDP, more than any previous President since the Great Society (Figure 22).¹² This increase, more than \$100 billion each year, during the Obama Administration largely reflects new programmatic investments in the form of the coverage provisions of the ACA and expanded tax credits for working families.

Figure 22
Change in Spending on Major Anti-Inequality Program
by Term, 1968-2016



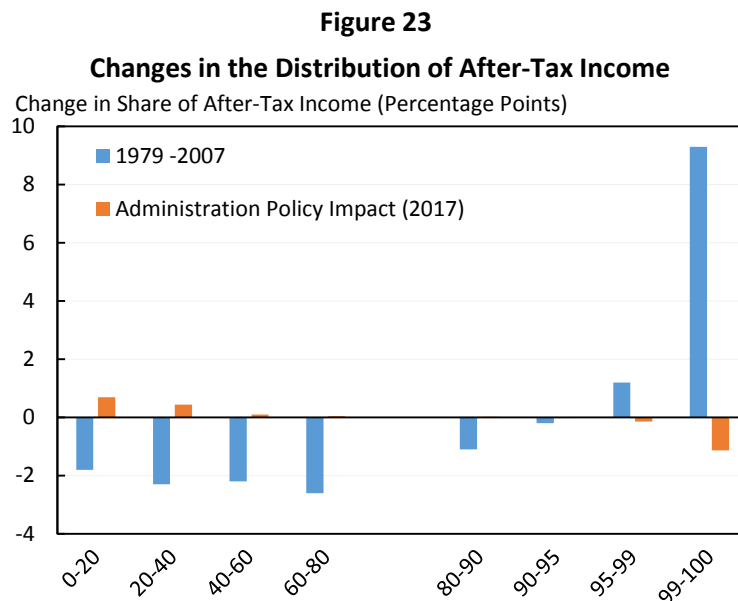
More Work is Needed: The Agenda Going Forward

The tax-and-transfer policies signed into law during the Obama Administration have achieved a partial reversal of the increase in income inequality in recent decades. Between 1979 and 2007, the share of after-tax income received by the bottom 20 percent of households fell about 2 percentage points, or about a quarter. Yet the Administration’s actions have rolled back roughly one-third of this deterioration, increasing the income share of the bottom 20 percent by 0.6 percentage point (Figure 19). Likewise, over the past three decades the share of after-tax income

¹¹ These include Medicaid and the Children’s Health Insurance Program, the Supplemental Nutrition Assistance Program, the refundable portion of the Earned Income Tax Credit and Child Tax Credit, Supplemental Security Income, Temporary Assistance for Needy Families and other family support, educational assistance, Pell grants, housing assistance, and the ACA’s Marketplace financial assistance. Social Security and Medicare are excluded due to their universal nature and because, in the case of Social Security, benefit increases in the last 50 years have often been accompanied by payroll tax increases. In addition, most of the change in Medicare spending over this period reflects changes in demographics, health care costs, and other factors, not changes in policy. Unemployment Insurance is also excluded as most variation reflects cyclical factors, not changes in underlying policy.

¹² Potential GDP represents the maximum sustainable output level of the economy. It is used here to put spending levels on a more equal footing by netting out the effects of the business cycle (recessions and recoveries) on the size of the economy.

accruing to the top 1 percent more than doubled, increasing by about 9 percentage points. The Administration’s actions reversed roughly one-tenth of this increase.



Clearly, we have a lot more work left to do. After all, inequality remains high and may continue to grow, and these policies have only undone only a portion of its increase since the late 1970s. The President has proposed a wide range of policies that would make additional headway in battling inequality in the years to come in all of the areas I have already discussed. Significantly expanded investments in infrastructure would continue to strengthen the economy while increasing demand specifically for a group workers who have faced reduced opportunities in recent decades. Raising the minimum wage at the Federal level and then indexing it so that it does not fall in real terms again would help boost earnings immediately, while the President also supports greater unionization and worker voice to continue that upward pressure. In addition, proposals including high-quality preschool, improving K-12 education, making the first two years of community college free for responsible students, and expanding training and apprenticeships would all boost market incomes over time. Finally, the President’s Fiscal Year 2017 Budget proposes to make the fiscal system much more progressive, including expansions of the Earned Income Tax Credit for workers; a landmark commitment to ensuring that all low- and moderate-income families have access to quality, affordable child care; and funding to end homelessness for families with children. Proposals in the Budget would also curb tax benefits for high-income Americans, including by cutting tax expenditures and making sure capital gains are taxed at death. All told, adopting policies like these would build significantly on the progress we have already made in reducing income inequality over the last eight years.

Conclusion: Fighting Inequality, One Important Part of the Strategy to Raise Incomes

As I noted at the beginning of my remarks, policymakers’ concern with inequality should comprise one portion of a multipart strategy to raise incomes, and thus living standards, for

lower- and middle-income American families. We should think, in other words, of reducing inequality—that is, ensuring a more equal distribution of incomes—not only for its own sake (as questions of equity and fairness should of course be an important concern in the design of any policy), but also in the context of a broader policy agenda. An agenda to raise middle-class incomes and to help more hardworking Americans get into the middle class must also address two other long-run trends in the U.S. economy: slowing productivity growth and declining labor force participation, particularly among prime-age workers.

In many cases, policies that would address inequality would also help to address productivity and participation as well. There is some macroeconomic evidence for this proposition from cross-country growth regressions that find that higher levels of inequality have negative effects on both the level and sustainability of growth (Berg and Ostry 2011; Ostry, Berg, and Tsangarides 2014). Microeconomic evaluations of specific policies provide even more fruitful evidence for the role that anti-inequality policies can play in enhancing economic efficiency. It is widely accepted that policies like subsidies for education and training can both increase economic output and reduce inequality. Strikingly, a number of recent studies have found that this is also true of tax-and-transfer programs that benefit low-income children, which do not just help provide income today but also increase long-run educational attainment, earnings, and health (for a survey of this evidence, see Furman and Ruffini 2015).

Similarly, policies aimed at reducing or countervailing the concentration of market power and rent-seeking behavior can also help lower inequality while raising participation and productivity. Policies like raising the minimum wage and greater support for collective bargaining and other forms of worker voice can help level the playing field for workers in negotiations with employers. Because such policies change the division of rents, they can reduce inequality without reducing overall efficiency, something that can also be achieved by carefully administering existing regulations that fight rent-seeking. Additionally, promoting competition through rulemaking and regulations and eliminating regulatory barriers to competition would also reduce the scope and unequal distribution of economic rents. A recent Executive Order signed by the President aims to do just that by instructing departments and agencies of the Federal Government to identify specific actions that they can take to foster greater competition in the marketplace.

However, despite a number of policy areas where earlier assumptions of an inevitable tradeoff between growth and equality have been shown by research to be unfounded, there will still be instances where policymakers face a tradeoff between equity and efficiency. In such instances, it may, in fact, be the case that we want to sacrifice some portion of growth in aggregate output for more equitable distribution of the output that remains. Economic growth may be easier to measure than social welfare, but as I have argued elsewhere, the two are not the same thing, and evaluating policies solely through their effects on economic growth implicitly assumes that the two are equivalent (Furman 2016). A richer conception of social well-being, one that takes distribution explicitly into account, may sometimes guide us towards policies that trade off efficiency in exchange for greater equity. As you continue in your careers, I invite you to think broadly about how the policies you will design and/or implement have distributional implications in a world that has become increasingly unequal.

Appendix

Appendix Table 1
Measures of Inequality, 1980 and Most Recent Available

	1980	Most Recent Available
Income		
Top 1% Income Share (<i>CBO</i>)		
Market Income (Income Before Government Transfers)	10%	18%
Pre-Tax (Income Including Government Transfers)	9%	15%
After-Tax (Pre-Tax Income Less Federal Taxes)	8%	12%
Bottom 90% Income Share (<i>CBO</i>)		
Market Income (Income Before Government Transfers)	67%	57%
Pre-Tax (Income Including Government Transfers)	70%	62%
After-Tax (Pre-Tax Income Less Federal Taxes)	72%	66%
90-10 Ratio ¹ (<i>Census</i>)	9.4	12.1
50-10 Ratio ¹ (<i>Census</i>)	3.9	4.2
Gini Index (<i>CBO</i>)		
Market Income (Income Before Government Transfers)	0.48	0.60
Pre-Tax Income (Income Including Government Transfers)	0.40	0.48
After-Tax Income (Pre-Tax Income Less Federal Taxes)	0.36	0.44
Ratio of CEO Compensation to Worker Compensation (<i>EPI</i>)	34	276
Wealth		
Top 1% Wealth Share		
Survey of Consumer Finances ²	30%	36%
Bricker et al. (2016) ²	27%	33%
Saez and Zucman (2016)	24%	42%
Top 10% Wealth Share ² (<i>CBO</i>)	68%	76%
Consumption		
Ratio of Top/Bottom Income Quintiles ³ (<i>Aguilar and Bills 2015</i>)	2.46	3.35
Gini Index (<i>Attanasio and Pistaferri 2014</i>)	0.22	0.26
Wages		
Gender Pay Gap ⁴ (<i>Census</i>)		
	0.40	0.20
Racial Pay Gap ^{4,5} (<i>Census</i>)		
Black-White	0.25	0.20
Hispanic-White	0.24	0.30
Health		
Percentage Point Gap Between Top and Bottom Income Quintiles at Age 50 in Probability of Reaching Age 85 (<i>National Academies 2015</i>)		
Men	18	40
Women	14	45
Ratio of Age 0-4 Mortality Rates Between Richest and Poorest Counties ⁶ (<i>Currie and Schwandt 2016</i>)		
Men	1.9	1.6
Women	1.9	1.6

¹Adjusted for 1994 CPS redesign, most recent data values for 2013 (pre-2014 redesign); ²Values for 1989 (earliest available);

³Values for 1980-82 (closest available); ⁴Pay gaps for full time workers (50-52 weeks) at least 15 years of age, 1980 value for civilian workers only, higher value represents larger gap; ⁵Values for white alone, black alone, and Hispanic (any race); ⁶Ratio of mortality rates for 95th and 5th percentile counties as ranked by poverty rate, value for 1990 (earliest available).

Notes to Figures

Figure 1

Note: Shading denotes recession.

Source: Bureau of Labor Statistics, Current Employment Statistics; Bureau of Labor Statistics, Consumer Prices; CEA calculations.

Figure 2

Note: Wages for private production and nonsupervisory workers.

Source: National Bureau of Economic Research; Bureau of Labor Statistics, Real Earnings; CEA calculations.

Figures 3a and 3b

Source: Census Bureau; CEA calculations.

Figure 4a

Note: The Saez (2016) market income estimates exclude capital gains income. This is included in the CBO (2016) market income measure.

Source: Saez (2016); CBO (2016); Saez and Zucman (2016); Survey of Consumer Finances; Fisher et al. (2016).

Figure 4b

Source: Bakija, Cole, and Heim (2012); CEA calculations.

Figure 5a

Note: U.S. commuting zones were ordered by Gini coefficient and divided into 20 equally sized bins. Each blue dot represents a single bin. Upward mobility reflects the mean percentile in the 2011-2012 national income distribution for those individuals in each bin whose parents were at the 25th percentile of the national income distribution between 1996 and 2000.

Source: Mishel et al. (2012); Corak (2011).

Figure 5b

Note: Intergenerational earnings elasticity is measured as the elasticity between a father's earnings and their son's adult earnings. The children studied were born during the early-to-mid-1960s and their adult income was measured in the mid-to-late 1990s.

Source: Corak (2011); Organisation for Economic Co-operation and Development.

Figure 6

Source: CBO (2016); CEA calculations.

Figure 7

Source: CBO (2016); CEA calculations.

Figure 8

Note: Includes advanced economies in the Luxembourg Income Study (per classification in the most recent IMF *World Economic Outlook*) with data available in 2010.

Source: Incomes across the Distribution Database (2016); Luxembourg Income Study.

Figure 9

Note: Each point represents the change in the Gini index for advanced economies between the first and last available time points in the Luxembourg Income Study, which vary by country. Dashed line delineates equal changes in the market and after-tax (including cash transfers) measures.

Source: Incomes across the Distribution Database (2016); Luxembourg Income Study; CEA calculations.

Figure 10

Note: Ratio of median annual earnings of full-time, full-year workers over age 25 with a bachelor's degree only to median annual earnings of full-time, full-year workers over age 25 with a high school degree only. Prior to 1992, bachelor's degree is defined as four years of college.

Source: Bureau of Labor Statistics, Current Population Survey (Annual Social and Economic Supplement); CEA calculations.

Figure 11

Source: Calculations by Claudia Goldin and Lawrence Katz.

Figure 12

Note: The rate of return to all private capital was calculated by dividing private capital income in current dollars by the private capital stock in current dollars. Private capital income is defined as the sum of (1) corporate profits ex. federal government tax receipts on corporate income; (2) net interest and miscellaneous payments; (3) rental income of all persons; (4) business current transfer payments; (5) current surpluses of government enterprises; (6) property and severance taxes; and (7) the capital share of proprietors' income, where the capital share was assumed to match the capital share of aggregate income. The private capital stock is defined as the sum of: (1) the net stock of produced private assets for all private enterprises; (2) the value of total private land inferred from the Financial Accounts of the United States; and (3) the value of U.S. capital deployed abroad less foreign capital deployed in the United States. The return to nonfinancial corporate capital is that reported by the Bureau of Economic Analysis. Inflation is calculated using the CPI-U-RS. Shading denotes recession.

Source: Bureau of Economic Analysis; Federal Reserve; Bureau of Labor Statistics; CEA calculations.

Figure 13

Note: Shading denotes recession.

Source: Bureau of Labor Statistics, Productivity and Costs.

Figure 14

Note: Total employment from 1901 to 1947 is derived from estimates in Weir (1992). For 1948 to 2015, employment data are annual averages from the monthly Current Population Survey. Source: Troy and Sheflin (1985); Bureau of Labor Statistics, Current Population Survey; Weir (1992); World Wealth and Income Database; CEA calculations.

Figure 15

Note: The figure depicts real hourly wage quantiles for workers age 18 to 64, excluding individuals who are self-employed, who have real wages below \$0.50 or greater than \$100 (in 1989 dollars), or whose wages are imputed. Top-coded earnings adjusted following Lemieux (2006). Inflation adjusted using the CPI-U-RS.

Source: Bureau of Labor Statistics, Current Population Survey; CEA calculations.

Figure 16

Note: The return on invested capital definition is based on Koller, Goedhart, and Wessels (2015), and the data presented here are updated and augmented versions of the figures presented in Chapter 6 of that volume. The McKinsey data includes McKinsey analysis of Standard & Poor's data and exclude financial firms from the analysis because of the practical complexities of computing returns on invested capital for such firms.

Source: Koller, Goedhart, and Wessels (2015); McKinsey & Company; Furman and Orszag (2015).

Figure 17

Note: Twelve-month moving average of not seasonally adjusted data. Gini index for the population ages 18-64, including those not currently employed.

Source: Bureau of Labor Statistics; Blinder and Zandi (2015); CEA calculations.

Figure 18

Note: Average State and Federal minimums (available 1974-2017) are weighted by statewide weekly worker hours as recorded in the CPS and described further in Autor, Manning, and Smith (2016). For the combined trendline, the Federal minimum is recorded in place of State minimums where the former binds. All values are inflation-adjusted to 2015 using CPI-U.

Source: Autor, Manning, and Smith (2016); Bureau of Labor Statistics; Congressional Budget Office; Department of Labor; CEA calculations.

Figure 19

Note: Bars show percent changes from 2012:Q2 to 2016:Q2 using not-seasonally-adjusted average weekly earnings; the category of States that have increased minimum wages since 2013 excludes those that only index their minimum wage to inflation.

Source: Bureau of Labor Statistics, Current Employment Statistics; CEA calculations.

Figure 20a

Source: Department of the Treasury, Office of Tax Analysis.

Figure 20b

Note: P90/P20 is the ratio of the after-tax income at the 90th percentile of the distribution to the after-tax income at the 20th percentile. P99/P20 is defined similarly. A(Top 1)/A(Mid 20) is the ratio of the average after-tax income in the top 1 percent to the average after-tax income in the middle 20 percent. A(Top 1)/A(Bot 20) is defined similarly. Incomes are adjusted for family size in computing the Gini Index and percentile ratios and for purposes of ranking families in computing ratios of average incomes and income shares.

Source: Department of the Treasury, Office of Tax Analysis.

Figure 21

Note: Share of income received by the bottom 99% of families after Federal income and payroll taxes in the last complete year of each Administration relative to the last year of the prior Administration for a 2006 sample of taxpayers augmented with non-filers constructed from the CPS. Pre-tax incomes adjusted in proportion to changes in the National Average Wage Index.

Source: Internal Revenue Service, Statistics of Income Public Use File; Bureau of Labor Statics, Current Population Survey; National Bureau of Economic Research, TAXSIM; CEA calculations.

Figure 22

Note: Major anti-inequality programs defined as Medicaid/CHIP, SNAP, the refundable portion of the EITC and CTC, SSI, TANF and other family support, educational assistance, Pell grants, housing assistance, the refundable portion of the Premium Tax Credit, and cost-sharing reductions.

Source: Office of Management and Budget; Congressional Budget Office; CEA calculations.

Figure 23

Source: CBO (2016); Department of the Treasury, Office of Tax Analysis; CEA calculations.

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