

The Rise and Consequences of Inequality in the United States

Alan B. Krueger

Chairman, Council of Economic Advisers

January 12, 2012

Remarks as Prepared for Delivery

I want to thank Neera Tanden for inviting me to the Center for American Progress (CAP) today. I also want to congratulate her for becoming the president of CAP. Following in John Podesta's footsteps is not easy, but if anyone is up to the task, I am sure Neera is. Neera and I worked closely together for many long hours on the historic health care reform bill that President Obama signed into law in March 2010. What I remember most is how cheerful Neera was at every meeting, and how dedicated she was to the goal of expanding access to health insurance for all those who couldn't afford coverage or who had been denied coverage for reasons of pre-existing conditions. I'll return to this issue toward the end of my remarks.

The topic I will address today is inequality. As you may know, I am a labor economist. Labor economics is the study of work and pay. It occurred to me that the field of labor economics can also be described as an attempt to understand inequalities related to the job market. Although I have done much research in my career on inequality, I used to have an aversion to using the term inequality. The *Wall Street Journal* ran an article in the mid-1990s that noted that I prefer to use the term "dispersion". But the rise in income dispersion – along so many dimensions – has gotten to be so high, that I now think that inequality is a more appropriate term.

My theme in this talk is that the rise in inequality in the United States over the last three decades has reached the point that inequality in incomes is causing an unhealthy division in opportunities, and is a threat to our economic growth. Restoring a greater degree of fairness to the U.S. job market would be good for businesses, good for the economy, and good for the country.

Dimensions of Rising Income Inequality

President Obama summarized the rise of inequality very succinctly in his Osawatimie, Kansas speech, when he said, "over the last few decades, the rungs on the ladder of opportunity have grown farther and farther apart, and the middle class has shrunk."

These trends are well documented but worth reviewing to understand the nature of the phenomenon. My first figure shows the annualized growth rate of real income for families in each fifth of the income distribution over two periods [Figure 1]. The figure shows that all quintiles (fifths) of the income distribution grew together from the end of World War II to the late 1970s, but since the 1970s income has grown more for families at the top of the income distribution than in the middle, and it has shrunk for those at the bottom. We were growing

together for the first three decades after World War II, but for the last three decades we have been growing apart. Here at CAP, I should point out that the pattern in the post-1970s period is not monolithic. As this next chart shows, the period from 1992 to 2000 was an exception, when strong economic growth and the policies of the Clinton Administration led *all* quintiles to grow together again [Figure 2]. Indeed, *all* income groups experienced their fastest income growth in years.

I could also note, parenthetically, that there is no sign in these data that the tax increases in the early 1990s had an adverse effect on income growth.

This next chart shows the level of income earned by the median household each year, after adjusting for inflation [Figure 3]. Half of all households earn more than the median and half earn less. You can see that the median household saw a decline in real income in the 2000s. If in the first decade of the 2000s the income of the median household had grown at the same rate as it did in the 1990s, middle class households would have an extra \$8,900 a year to spend on their mortgages, rent, cars, food, and clothing, or to add to their savings.

The next chart shows how much after-tax income has grown for different parts of the income distribution since 1979, after adjusting for inflation [Figure 4]. As the Congressional Budget Office noted in a recent report, the top 1% of families saw a 278 percent increase in their real after-tax income from 1979 to 2007, while the middle 60% had an increase of less than 40 percent.

Because of these trends, the very top income earners have pulled much further ahead of everyone else. The following chart shows the share of all income earned by the top 1 percent and 0.1 percent of households [Figure 5]. Not since the Roaring Twenties has the share of income going to the very top reached such high levels.

The magnitude of these shifts is mindboggling. The share of all income accruing to the top 1% increased by 13.5 percentage points from 1979 to 2007. This is the equivalent of shifting \$1.1 trillion of *annual* income to the top 1 percent of families. Put another way, the increase in the share of income going to the top 1% over this period exceeds the total amount of income that the entire bottom 40 percent of households receives.

A consequence of the momentous shifts in the income distribution that I have just documented is that the middle class has shrunk. The next chart illustrates this development by showing the percentage of households whose income falls within 50 percent of the median [Figure 6]. That is, we place a +/-50% band around the household that is exactly in the middle, and then we see what fraction of all households fall within this band each decade. We have gone from having just over 50 percent of households with incomes within 50 percent of the median in 1970 to 44 percent in 2000, and 42.2 percent last year.

Larry Katz has used the term “polarization” to describe what is going on in the income distribution – we have more families falling into either extreme end of the distribution, and fewer in the middle. The statistical word for this is “kurtosis”. I can see why the term polarization has caught on.

Income Mobility

Higher income inequality would be less of a concern if low-income earners became high-income earners at some point in their career, or if children of low-income parents had a good chance of climbing up the income scales when they grow up. In other words, if we had a high degree of income mobility we would be less concerned about the degree of inequality in any given year. But we do not. Moreover, as inequality has increased, evidence suggests that year-to-year or generation-to-generation economic mobility has decreased.

Recent work finds that a worker’s initial position in the income distribution is highly predictive of how much he or she earns later in the career. Studying tax data on individuals’ earnings since 1937, for example, Wojciech Kopczuk, Emmanuel Saez and Jae Song find that income mobility over the career has been stable since the 1970s, when all workers are considered as a whole. For men, however, there has been a decline in income mobility over the career since the 1970s. This decline has been offset by an increase for women, but the different pattern for women is probably a result of changes in labor force attachment over the career, rather than an increase in career mobility due to a fundamental change in the labor market.

More research has been done on intergenerational income mobility. Studies find that your parent’s income is a good predictor of your subsequent income. Studies that use income data averaged over longer periods of time for parents and children tend to find higher correlations between parental and children’s income. A reasonable summary is that the correlation between parents’ and their children’s income is around 0.50. This is remarkably similar to the correlation that Sir Francis Galton found between parents’ height and their children’s height over 100 years ago. This fact helps to put in context what a correlation of 0.50 implies. The chance of a person who was born to a family in the bottom 10 percent of the income distribution rising to the top 10 percent as an adult is about the same as the chance that a dad who is 5’6” tall having a son who grows up to be over 6’1” tall. It happens, but not often.

Another handy statistic for summarizing the connection between parents’ and children’s income is the Intergenerational Income Elasticity (IGE). Recent studies put the IGE for the U.S. around 0.4. This means that if someone’s parents earned 50 percent more than the average, their child can be expected to earn 20 percent above the average in their generation. As Jason DeParle recently highlighted in the *New York Times*, parental income matters more for children’s success in the U.S. than it does in other economically developed countries.

Recent work by Miles Corak finds an intriguing link between the IGE and income inequality at a point in time. Countries that have a high degree of inequality also tend to have less economic mobility across generations. We have extended this work using OECD data on after-tax income inequality, as measured by the Gini coefficient. This next figure shows a scatter diagram of the relationship between income mobility across generations on the Y-axis (measured by IGE) and inequality in the mid-1980s, as measured by the Gini coefficient for after-tax income, on the X-axis [Figure 7]. Each point represents a country. Higher values along the X-axis reflect greater inequality in family resources roughly around the time that the children were growing up. Higher values on the Y-axis indicate a *lower* degree of economic mobility across generations. I call this the “Great Gatsby Curve.” The points cluster around an upward sloping line, indicating that countries that had more inequality across households also had more persistence in income from one generation to the next.

As I documented in the beginning of my talk, the U.S. has had a sharp rise in inequality since the 1980s. If the cross-sectional relationship displayed in this figure holds in the future, we would expect to see a rise in the persistence in income across generations in the U.S. as well.¹ While we will not know for sure whether, and how much, income mobility across generations has been exacerbated by the rise in inequality in the U.S. until today’s children have grown up and completed their careers, we can use the Great Gatsby Curve to make a rough forecast. The next figure displays this projection [Figure 8]. The IGE for the U.S. is predicted to rise from .47 to .56. In other words, the persistence in the advantages and disadvantages of income passed from parents to the children is predicted to rise by about a quarter for the next generation as a result of the rise in inequality that the U.S. has seen in the last 25 years. It is hard to look at these figures and not be concerned that rising inequality is jeopardizing our tradition of equality of opportunity. The fortunes of one’s parents seem to matter increasingly in American society.

Children of wealthy parents already have much more access to opportunities to succeed than children of poor families, and this is likely to be increasingly the case in the future unless we take steps to ensure that all children have access to quality education, health care, a safe environment and other opportunities that are necessary to have a fair shot at economic success.

Causes

As a labor economist, I am compelled to comment at least briefly on the causes of the rise in inequality. In a mechanical sense, much of the rise in household income variability in the U.S. can be traced to a rise in the variability in hourly earnings. Other factors, such as the number of

¹ There are statistical reasons why the relationship might not hold (e.g., omitted variables), but there are also many reasons to suspect that it will hold. For example, families with higher incomes can pass on more advantages to their children through providing more educational opportunities, and the reward to education and skills has increased.

workers per family and family labor supply decisions also matter, but understanding why the dispersion in wage rates has changed is key to understanding the rise in inequality in America.

There is considerable professional disagreement about the causes of increased dispersion in wage rates. Nonetheless, the economics literature has coalesced around some key hypotheses.

In the mid-1990s, I did a poll of a nonrandom group of professional economists attending a conference at the New York Fed. I asked them the extent to which various factors contributed to the rise in inequality. This survey took on a life of its own, as it was reprinted in the *Economic Report of the President* in 1997, and then in *The New Yorker*. This poll is clearly an oversimplification of a complicated dynamic that has changed the U.S. labor market, but here is a summary of the findings [Figure 9].

The most important factor according to respondents was skill-biased technical change. A lot of activities people do at work have become automated as a result of computers and information technology, and much of this automation has favored people with the analytical skills to get the most out of the technology. This is one reason why the wage gap between those with a college education or higher and those with less than college education has soared in the last three decades. Attributing so much of the rise in skill differentials to shifts in demand across skill groups resulting from technological change alone may be a little misleading, however, as there also has been a slowdown in the growth of the supply of relatively highly educated workers in the U.S. in this period.

Showing the humility of economists, a distant second in this poll was other and unknown factors. I think we have come to know a little more about these factors since the poll was conducted. In particular, it is clear that the proliferation of high salaries earned in the financial sector has contributed to the rise in income inequality. The proportion of people in the top 1% who were from the finance and real estate industry nearly doubled from 1979 to 2005. And in 2005, executives from the finance and real estate sector made one quarter of the income in the top 0.1 percent.

Another factor that was cited in my poll that may matter more now than in the 1990s was increased globalization. The number of workers against whom the American labor force competes has jumped. Some have benefited as demand for the goods and services they provide has risen, but other workers have been left behind by globalization—they have seen their plant close with few new jobs available to replace it. The 2000s saw the worst record of job creation in 50 years, even before the recession that started in 2007. Recent research by David Autor, David Dorn and Gordon Hanson suggests that China's very rapid adoption of cutting edge technology in many industries has had an even more profound effect on labor demand in the U.S. in the 2000s than in the 1990s.

There have also been important institutional changes that have contributed to the rise in income inequality. Union membership in the U.S. declined from 20% of employees in 1983 to 12%

today. This is important because David Card and others have shown that unions affect the wage structure primarily by raising the wages of lower middle class workers so they can make it to the middle class. In addition, the decline in the real value of the minimum wage in the 1980s contributed to the rise in inequality, as David Lee and others have pointed out.

Lastly, tax policy has played a role in rising inequality. Although our tax code is still progressive, tax changes in the early 2000s benefited the very wealthy by much more than other taxpayers, compounding the widening gap in pre-tax earnings. As a result of reduced progressivity, the wealthy are paying some of the lowest tax rates in the history of the U.S.; average tax rates for the wealthiest 0.1 percent have been in decline for five decades.

Our income tax system is less progressive than that in other countries. This chart shows the Gini coefficient for OECD countries, with the blue bars indicating inequality in before-tax income and the red bars inequality in after-tax income [Figure 10]. The difference in the height between the bars is a measure of how much the tax code reduces inequality. Of all the OECD countries, only Chile, Korea, and Switzerland have tax systems that reduce inequality by *less* than the U.S.

Now, I could see why someone could support tax cuts for top income earners if they had materially benefited the U.S. economy, but the macro evidence is clear that the economy did not perform better after last decade's tax cuts than it did after taxes were increased on top earners in the early 1990s. I already showed you evidence that income growth was stronger for lower and middle income families in the 1990s than it was in the last 40 years overall. This next chart shows that there was more job growth in start-ups in the 1990s than in the 2001-2007 period [Figure 11]. Across all businesses, job growth was much weaker in the 2000s than in the 1990s. So there is little empirical support for the claim that reducing the progressivity of the tax code has spurred income growth, business formation or job growth.

Consequences

Next, I will discuss three potential consequences of rising inequality for the economy.

I have already presented evidence suggesting that as inequality rises, the prospects for intergenerational mobility fall. Support for equality of opportunity should be a nonpartisan issue. It is hard not to bemoan the fact that because of rising inequality the happenstance of having been born to poor parents makes it harder to climb the ladder of economic success. There is a cost to the economy and society if children from low-income families do not have anything close to the opportunities to develop and use their talents as the more fortunate kin from better off families who can attend better schools, receive college prep tutoring, and draw on a network of family connections in the job market.

One would think it inexcusable that public policy has exacerbated this trend. But that is exactly what has happened over the last decade. As I mentioned, income tax changes have made the distribution of after-tax income more unequal, not less. Moreover, the drastic cut in the estate tax will reduce economic mobility in the U.S. going forward, as the tremendous resources accrued by the wealthy can now be transferred to their heirs at much lower tax cost.

Raghuram Rajan and Robert Reich have suggested a second way in which rising inequality and slow income growth for the vast middle class have harmed the U.S. economy – namely, by encouraging many families to borrow beyond their means to try to maintain their consumption, and by reducing aggregate consumption. In his book *Fault Lines*, Rajan goes so far as to argue that this overleveraging as a result of increased inequality was a significant cause of the financial crisis in 2008.² In the spirit of Nicholas Kaldor from an earlier era, Reich argues that increased inequality has reduced aggregate demand because the well-off have a lower marginal propensity to consume than everyone else. While one could reasonably expect all families to consume their (permanent) income over their lifetimes, studies have found that the marginal propensity to consume is lower at higher income levels in the short run. And one might expect the reduction in the estate tax to prolong the short run today because the cost of saving for the next generation for the wealthy is considerably reduced since inheritances will be taxed at a much lower rate.

While the potential drag on aggregate demand from the shifts in the income distribution are hard to document, the following back-of-the-envelope calculation makes clear that it could be substantial. As I mentioned, the share of income going to the top 1 percent increased by 13.5 percentage points between 1979 and 2007, the equivalent of about \$1.1 trillion a year in 2007 income. Research on the saving behavior of families at the top of the income distribution is scarce, but according to research by Karen Dynan and coauthors, the top 1 percent of households saves about half of the increases in their wealth, while the population at large had a general savings rate of about 10%. This implies that if another \$1.1 trillion had been earned by the bottom 99% instead of the top 1%, annual consumption would be about \$440 billion higher. This would be a 5% boost to aggregate consumption.

There are many caveats to this calculation since estimates of the marginal propensity to save by income are not well known for the extreme upper end of the income distribution. And this does not say that the rise in inequality cut aggregate demand by \$440 billion, because households could have (and probably did) borrowed to make up for weak income growth. But the scope for such borrowing has come to an end, so this calculation indicates the kind of latent pressure that could be placed on aggregate demand as a result of changes in the income distribution. Now that we are in a period with excess capacity, I think these calculations make clear that the economy

² Dirk Krueger and Fabrizio Perri have found that rising income inequality has not been accompanied by rising consumption inequality, which suggests that some households accumulated debt at an unsustainable rate to maintain their consumption. Other studies have found that consumption inequality increased along with income inequality.

would be in better shape and aggregate demand would be stronger if the size of the middle class had not dwindled as a result of rising inequality.

President Obama made this point very clearly in his Kansas speech: “When middle class families can no longer afford to buy the goods and services that businesses are selling, it drags down the entire economy, from top to bottom.”

Third, I want to mention that an active line of research examines the connection between inequality and longer term economic growth. In a seminal paper, Torsten Persson and Guido Tabellini argued that in a society where income inequality is greater, political decisions are likely to result in policies that lead to less growth. They provided evidence supporting this conclusion. A new IMF paper also finds that more equality in the income distribution is associated with more stable economic growth.

Historically, a growing middle class has led to new markets, supported economic growth and built stronger communities. The studies on inequality and growth may have found an inverse relationship between the two for the reasons that Kaldor pointed to decades ago – because the top income earners tend to save rather than spend their incomes.

While research on the macroeconomic consequences of inequality is controversial, there is much microeconomic evidence that convincingly finds that wage discrepancies can be bad for employee morale and productivity. In one recent randomized field experiment, for example, Ernst Fehr and his coauthors found that raising pay for workers who felt that they were underpaid substantially increased their productivity, but raising pay for those who did not feel underpaid had no effect on productivity.³ In another experiment, he found that increasing the disparity in pay between pairs of workers decreased the productivity of the two workers combined.⁴ These studies and others suggest that a more fair distribution of wages would be good for business because it would raise morale and productivity. This is in addition to any effect that an increase in the size of the middle class would have on the demand for the businesses’ products.

Conclusion

My theme that rising inequality has been bad for the U.S. economy was nicely anticipated by CAP’s Heather Boushey. Heather recently wrote, and I quote: “What we now know is that a strong middle class creates stable markets for businesses to invest. The decline of America’s

³ Alain Cohn, Ernst Fehr and Lorenz Goette, “Fairness and Effort - Evidence from a Field Experiment,” October 2008.

⁴ Alain Cohn, Ernst Fehr, Benedikt Herrmann, and Frederic Schneider, “Social Comparison in the Workplace: Evidence from a Field Experiment,” IZA Working Paper 5550, March 2011.

middle class entails real hardships for families and limits opportunity. But it also appears that the demise of our middle class is a part of what ails our economy overall.”⁵

The next question to ask is what should be done to bring back more fairness to the U.S. economy, to ensure that hard work and responsibility are rewarded by a good shot at making it to the middle class, regardless of where you start out? While this could be the subject of another CAP lecture, let me highlight a few significant areas of public policy.

First, the Affordable Care Act is already helping middle class families. It has been well publicized that an estimated 2.5 million additional young people age 19-25 have obtained health insurance because the ACA allowed them to stay on their parent’s health insurance plan. What is less well known is that these young adults overwhelmingly come from lower middle class families. Health insurance coverage did not rise for full-time students because they already had access to health insurance coverage. But it did rise for young adults who were not enrolled in school and who had parents with health insurance coverage. These are overwhelmingly responsible families who are working to maintain their position in the economy despite economic forces that have been working against them for decades.

Moreover, when it is fully implemented the ACA will help the middle class and those struggling to get into the middle class by lowering the growth of health care costs, by preventing those with pre-existing conditions from being denied health insurance coverage, by creating exchanges for small businesses and lower income families to obtain health insurance at competitive rates, and by providing tax subsidies to small businesses and lower income workers to purchase insurance.

Second, it is critical to take the steps necessary to ensure that the current economic recovery continues. Economic slumps tend to hit those struggling to get into the middle class the hardest. Although the economy has been expanding for 10 straight quarters, the right policy actions would strengthen economic growth. President Obama proposed the American Jobs Act in September to strengthen the recovery and speed job growth. Among many measures to support the recovery, the American Jobs Act included an extension of the payroll tax cut for the rest of this year, which would put an extra \$1,000 in the hands of a typical middle class family, and the continuation of extended unemployment insurance benefits. Although Congress has extended these measures until the end of next month, it is critical for the recovery that they are extended for the rest of the year. The American Jobs Act also called for expanded reemployment services and a “Pathways Back to Work” fund that states could use to help less skilled job seekers find jobs. Creating these opportunities for less skilled workers would get them back to work right away and help expand their opportunities in the future.

Third, I think it is clear that we can’t go back to the type of policies that exacerbated the rise in inequality and threatened economic mobility in the first place if we want an economy that builds

⁵ Heather Boushey, “The Endangered Middle Class: Is the American Dream Slipping out of Reach for American Families?,” May 2011.

the middle class. This means that we must adequately regulate excess risk-taking and corrupt practices in financial markets. It also means that we can't go back to tax policies that didn't generate faster economic growth or jobs, but rather increased inequality. Instead of going backwards, we should adhere to principles like the Buffett Rule, which states that those making more than \$1 million should not pay a lower share of their income in taxes than middle class families. We should also end unnecessary tax cuts for the wealthy, and return the estate tax to what it was in 2009. And we should ensure that all children have adequate nutrition, access to health care and a secure environment, and a fair shot at a good education, regardless of their parents' income.

Lastly, I want to emphasize that restoring more fairness to the economy would be good for all parts of American society. This is not a zero-sum game. The evidence suggests that a growing middle class is good for the economy, and that a more fair distribution of income would hasten economic growth. Businesses would benefit from restoring more fairness to the economy by having more middle class customers, more stable markets, and improved employee morale and productivity.

President Obama said this much better than I ever could: "This isn't about class warfare. This is about the nation's welfare. It's about making choices that benefit not just the people who've done fantastically well over the last few decades, but that benefits the middle class, and those fighting to get to the middle class, and the economy as a whole."

Thank you very much.