Economic Inequality: Causes and Solutions

Where Do We Go from Here?

June 27, 2012

Factors Driving Economic Well-Being and Mobility

What policies would ameliorate economic inequality and increase economic mobility? The first in this series of three commentaries discussed the difficulty of measuring economic inequality over time. The second commentary discussed economic mobility. This commentary examines the causes of economic inequality and lack of economic mobility and evaluates the effectiveness of various policy options to reduce economic inequality.

First, individual behavior—especially decisions about completing high school and pursuing a college education or other specialized training, marriage, and parenting children—greatly affects economic mobility and well-being.

Second, the information technology revolution over the last several decades has changed the demand for, and consequently the real wages paid to, different types of workers. This phenomenon, known as skill-biased technological change, has increased the education premium workers receive for a college education and for graduate or professional degrees. Thus, education achievement is more important today than it was in the past to economic mobility and well-being.

Third, the interaction between taxes and the phase-outs of social welfare benefits as household income increases frequently imposes an excessively high effective marginal tax on earning additional income. This phenomenon, known as the poverty trap, discourages individuals in low income households from entering the labor force, working extra hours, or seeking career advancement that would contribute to their economic mobility and well-being.

Therefore, when examining policy options, policymakers should keep in mind what makes Americans so mobile. The following conclusions are

A rising percentage of families with a high net worth indicates that wealth is becoming more widely dispersed, not concentrated...
The ownership of stock and homes has become more widely dispersed, not less so, as has the ownership of college degrees.

-- Alan Reynolds, Income and Wealth\(^1\)
based upon the summation of the findings in this commentary and the two prior commentaries in the series:

1) Income, earnings, and wealth are all important components when measuring economic well-being.
2) A more comprehensive, multidimensional measurement of well-being better informs policy decisions.
3) Recent claims that economic mobility has diminished are not supported by empirical evidence.
4) Skill-biased technological change has increased economic inequality.
5) The U.S. experience with skill-biased technological change and economic inequality fits the international trend.
6) Redistributive programs are not long-term solutions and are unlikely to significantly reduce economic inequality.
7) The best way that government can address economic inequality and barriers to economic mobility is to improve access and opportunity for education.
8) Policies meant to reduce current economic inequality through means-tested cash and non-cash benefit programs can exacerbate economic immobility over time. Therefore, careful policy design is critical to a program’s success.

**Characteristics of Economically Mobile Individuals**

Individual behavior is a major determinate of economic mobility. According to an analysis of 2009 Census data from the Brookings Institution, adults who graduated from high school, were employed, and reached the age of 21 and married before having children, had a 2 percent chance of living in poverty and a better than 70 percent chance of upward mobility into the middle class, defined as $65,000 or more in annual household income. Those who did not meet any of the three criteria had a 77 percent chance of living in poverty and a 4 percent chance of mobility into the middle class. Additional Census data demonstrates that married couples with children are rare in the lowest income group; currently, only 8.8 percent are in the lowest quintile, up from 6.7 percent at the start of the December 2007-June 2009 recession. By contrast, of the two-fifths of bottom quintile households that are families, 83 percent are headed by single mothers. Even when accounting for unmarried cohabiters and marriages that occur after getting pregnant (“shotgun” unions), researchers found that those who married prior to the birth of children had a significantly higher standard of living, were less likely to split, and were therefore less likely to import family and economic instability.

The savings behavior of individuals in the lowest income group also significantly affects the likelihood of upward intergenerational mobility. A recent report from the Pew Charitable Trusts’ Economic Mobility Project found that 71 percent of children born to high-saving, low-income parents move upward from the bottom income quartile over a generation relative to the 50 percent of children who moved upward from low-saving, low-income parents. This is also true for upward mobility of individuals within their own lifetimes; 55 percent of adults in the bottom quartile during 1984-1989 moved out of that quartile by 2003-2005 if their initial savings were high. This compares to the 34 percent of those who moved out of the bottom quartile if their initial savings were low.
Personal decisions made while young are not necessarily limiting, but they can come into play in determining the degree of relative economic mobility experienced in one’s lifetime and between generations. Given these individual choices, the government is limited in what it can do to make certain individuals more economically mobile.

**Education Premiums**

The growing disparity in wage income is not a result of the top one percent earning vastly more amounts over time. As can be recalled from an earlier commentary in the series, these individuals in the top one percent are not the same people over time, and more importantly, like gains from trade, *income is not a zero-sum game.* In recent testimony before the Joint Economic Committee, Federal Reserve Chairman Ben Bernanke stated:

> It is not so much a question of bringing down the top 1 percent as it is bringing up the lower 99 percent. The question is: How can you strengthen the middle class? How can you make middle class incomes higher and more secure? This has been, as you know, a trend that has been going on for 35 years and it is related to a lot of factors, including globalization, the technical change which has made a high school education simply less valuable. So I would be very much in favor of measures to strengthen the middle class and to help the average American do better and approaches like education and so on I think would be very constructive.\(^5\)

According to Harvard economist Lawrence Katz, even if the gains of the top one percent were distributed to the lower 99 percent, household income would increase by less than half of what could be earned if everyone obtained a college degree.\(^6\)

**Skill-Biased Technology Change**

During the last four decades, the rapid decline in the cost of computers and computer-driven machinery has significantly changed the demand for different types of workers. Between 1975 and 2011, the real cost of computer equipment dropped a staggering 99.6 percent and the real cost of software decreased 27.6 percent over the same period.\(^7\)

Information technology has boosted the marginal productivity of highly skilled, college-educated workers. The real wages paid to highly skilled, college-educated workers have increased rapidly as well over the past four decades as the demand for these workers grew more rapidly than their supply. At the same time, information technology directly competes with some generally less skilled and less educated workers, whose real wages have tended to stagnate. Economists refer to this phenomenon as skill-biased technological change (SBTC).

SBTC has expanded the “premium” in terms of real wages that workers with a college education or an advanced degree earn over workers with a high school education. College education and other advanced training create the skill sets demanded by technological changes over the past several decades.
Consequently, the “wage premium” for workers with a college education or an advanced degree has widened.

Broadly speaking, types of labor can be broken down by skill set combinations based on the following: (1) having either a repetitive or creative element, in addition to (2) either a cognitive or manual element, as shown in Figure 1.8,9 SBTC has increased the real earnings for creative/cognitive jobs (for example, engineers, architects, and experts in marketing, finance, communications, design, analysis, product development, and management), because the demand for these skills has generally increased faster than the supply of workers with these skills over the years.

For other types of labor, mostly the repetitive/manual occupations (for example, assembly line positions in manufacturing), SBTC has caused the real wages for workers with these skill sets to stagnate or grow very slowly. Workers with repetitive/cognitive jobs (such as customer service and the service industry in general) did not witness as much of the negative effects of SBTC as repetitive/manual skills because these positions still require human-specific input.

SBTC does not directly affect the real wages paid to other job skill sets, such as the creative/manual combination (for example, firefighters, chefs, and professional athletes). However, SBTC has had indirect positive effects on the real wages paid to creative/manual workers. As the real wages paid to creative/cognitive workers have increase over time, these workers have bought more services that are provided by creative/manual workers. Consequently, the real wages paid to creative/manual workers have also increased.

Between 1989 and 2007, there was a notable wage “polarization” in real wage data. The top ten percent achieved a 23.3 percent gain. The bottom 40 percent saw a gain in the range of 21.8 to 22.6 percent. The middle fifth saw an increase of only 14.3 percent.9

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1David H. Autor, Frank Levy, and Richard J. Murnane used detailed U.S. Department of Labor data including 450 aggregated occupations in 140 U.S. industries nationwide to identify five major categories of job skill sets: (1) cognitive non-routine (creative) analytical; (2) cognitive non-routine (creative) communicative, interactive, and managerial; (3) cognitive routine (repetitive); (4) manual routine (repetitive); and (5) manual non-routine. For visual purposes, sets (1) and (2) are combined into one category above.
The nuanced view of the SBTC and the changes it has wrought in the real wages paid to different types of workers is not unique to the United States. The information technology revolution has produced a similar divergence in the real wages paid to different types of workers throughout the world. In developed countries, SBTC has expanded wage premiums for highly skilled, college-educated workers in the United Kingdom and Germany. Recent cross-country studies of European countries also show this pattern across broad occupation groups. Developing countries have also witnessed growth in real wages paid to highly skilled, college-educated workers as a result of technological changes. These SBTC-induced trends in labor markets have occurred in most countries around the world regardless of government structure, business cycles, political leadership, and government policies on revenue, outlays, and regulations.

**Mobility and Education**

As economist Alan Reynolds notes, at the higher end of the income ladder, the demand for high-skilled individuals with formal education appeared to grow even faster than the growth of supply. In the past several decades, the difference between the real mean income of U.S. workers with high school diplomas and those with bachelor’s degrees or higher has significantly increased. As of 2010, high school graduates (37 million people age 25 and over) achieved an average of $33,371 in annual earnings. Comparatively, earners with a bachelor’s degree (30 million people age 25 and over) received an average $59,737 in annual earnings; master’s degrees (13 million) averaged $71,739 annually, and doctorates (2 million) averaged $126,057.

Using Census data, Scott Hodge of the Tax Foundation recently looked at the percent of individuals with a bachelor’s degree or higher and the percent with a high school degree or less and compared total money income in 2010. What Hodge noted was that just 8 percent of individuals at the lowest income level have a college degree, while 78 percent of those earning $250,000 or more per year have at least a college degree or an advanced degree. Alternatively, of those with a high school degree, 9 percent were in the highest income category while 69 percent were in the lowest income category (associate degrees and those with some college were omitted). Hodge argues that the data reveal an education gap rather than an income gap.

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According to research from the Brookings Institution’s and Pew Charitable Trusts’ combined contribution to the Economic Mobility Project, the annual wage gap between a high school degree and a four-year college degree was over $29,000 in 2005. Those with a high school degree earn considerably more than dropouts by approximately $10,000 as of 2005. While both adult children with and without college degrees were more likely to exceed their parents’ income, those with college degrees were far likelier to exceed parental income.

**Figure 3** – In all quintiles, the percent of children that will achieve higher family income than their parents is significantly higher if the children receive a college degree.

A college degree not only provides a wage premium, but a job security premium as well.

In a recent article examining the effects of education and occupational choice on job security, a Federal Reserve of Minneapolis article finds that some jobs filled by workers with less formal education pay high wages, but in a recession, a college degree typically offers better job security than a larger paycheck. During the Great Recession, those with a high school degree or less experienced higher unemployment rate increases than those with a bachelor's degree or higher; this relationship between education and risk of unemployment holds for previous recessions. According to the Minneapolis Fed, in 2006 about 20 percent of college graduates were in the bottom two income quintiles, earning less than $14.50 per hour. Alternatively, 25 percent of workers with only a high school diploma were in the top two income groups earning more than $20 per hour. Thus, it is not the high wage earners that are most protected from job loss in recessions, but rather workers who continued their education beyond high school, irrespective of a high or low wage income, adding to a wide band of research that a college degree not only provides a wage premium, but a job security premium as well.

**The Future of Education Premiums**

As economist Bryan Caplan points out, the oft-cited story that higher education attainment has plateaued for decades is based on data for the 25 through 29 years old demographic, which only shows the education attainment for that age group, not the entire stock of educated workers. If the focus is shifted to the entire population 25 years and older, then the
percent of persons with high school completion or higher is noticeably improved, from the low 20s in 1940 to well above 80 percent as of 2010. For those with a bachelor’s degree or higher, there is an improved incline from roughly 5 percent in 1940 to nearly 25 percent in 2010. While these numbers may still seem low, Caplan notes that the elderly grew up in an era of low levels of formal education, and younger generations have achieved higher levels of higher education as time has passed. Caplan argues that educational stagnation may be on the horizon, but that it has not arrived yet as many have assumed.18

An additional concern is that the cost of tuition and fees for post-secondary education has notably increased as a proportion of median household income, rising from 9.6 percent in 1976-77 to 25.0 percent in 2009-10. Many recent studies have pointed to federal aid as effectively increasing the price of tuition proportionally to the amount of aid offered. According to data from 1996 to 2008, Pell Grant recipients on average saw an increase in tuition price of $17 to every $100 of Pell Grant aid offered. For selective nonprofit colleges, this ratio was observed to be as high as $66 in average tuition price increases for every $100 of Pell Grant aid offered to students.19

Information Technology, Trade and Globalization Effects

In the United States, the shifting demand from low-skill production to highly skilled labor production has been dramatic. As former Senator Phil Gramm and former OMB deputy director Steve McMillin point out in The Wall Street Journal, “In relative terms, the return to unskilled labor has fallen. Short of a crippling reversal in world trade, which would reduce the value of labor and capital, this effect will dominate world markets for the foreseeable future.” The authors also mention that the increased participation of China, India, Brazil, and Russia in the world economy has affected income inequality because such an expansion of labor engaged in global markets has increased the return on capital (both in the traditional sense and human capital inclusive of education and training) while reducing the relative return to labor.20

A recent report from the International Labor Organization and the World Trade Organization found that while globalization may lead to higher job turnover in the short run, there is no indication that trade or offshoring leads to higher unemployment (or a lower level of employment) overall, but that the demand for low-skilled labor may fall as the demand for high-skilled labor expands.21 It should be noted that global competition will help to spur innovation and lower the prices of everyday goods. As economist Nouriel Roubini notes, in spite of the short-term global risks, long-term global burgeoning of information technology means more trade in services and capital, new industries in energy technology and biotechnology, and more exchange in news and technology, in addition to more labor mobility.22

Assessing Existing Programs

While social safety nets may lift the impoverished out of destitution, they can simultaneously discourage upward mobility resulting from, as Scott Winship puts it, “inefficient incentives related to work, marriage, and saving.” This is a result of poorly designed phase outs built into current social safety nets. For example, on the tax expenditure side, if a couple
earning similar income decides to get married next year, the tax code penalizes these dual earners when changing tax status from single to filing jointly.24

An alternative example of disincentives resulting from the government transfer side includes the phase out levels of welfare programs, which can trigger a greater than 100 percent effective tax rate on an earner that is no longer eligible for the benefits of a particular program, essentially meaning that the reward for working is zero or even negative. This interaction is known as the poverty trap.25 For example, the loss of tax code preferences mentioned above can be compounded when interacting with Section 8 ("tenant-based" or "project-based" rental assistance) phase out levels of income threshold eligibility. If a Section 8 recipient household is going from one to two income earners, or alternatively, if one earner is getting a promotion, this may make the household no longer eligible for the affordable Section 8 rent, and this can significantly discourage acceptance of higher wages or higher overall household income that would otherwise contribute to their economic mobility. This not only discourages individuals from earning additional income, but also weakens the incentive to accumulate savings for purposes such as education and retirement.

A recent joint study from the Corporation for Enterprise Development (CFED) and the Annie E. Casey Foundation reported that federal policy administered through the tax code are poorly targeted because they are frequently used to subsidize wealth building for those taxpayers that do not need assistance.26 In addition, the Economic Mobility Project reports that very little, 0.2 percent, of the benefits from federal government tax policies meant to promote savings go towards low-income households. Notably as of 2003, those earning under $20,000 per year had only a 20 percent participation rate in a tax-favored savings vehicle compared to 52 percent and up for those in higher income groups. By age, only 32 percent of those under 30 years old were participating compared with 56 percent and 63 percent for those aged 30-44 and 45-59, respectively.27

As of the first quarter of 2011, 49.1 percent, nearly half of U.S. households were receiving some type of government benefit, up from 30 percent in the early 1980s; 16 percent of the population lives with at least one person that receives Social Security, and 15 percent receive or live with someone who receives Medicare benefits.28 As mentioned in the initial commentary of the series, even though overall transfer spending has remained consistent with overall income growth, total government transfers to the lowest quintile declined from 54 percent to 36 percent between 1979 and 2007 as a result of rapid growth in non-means-tested programs.

Furthermore, it is important to consider that attempting to equalize wealth would discourage saving, because it would require confiscation of wealth, which for retirees has taken a lifetime of work to accumulate, to give it to younger generations with little to no savings built up yet. As Reynolds states, “Political allocation of goods and services not only leans toward inefficient, one-size-fits-all solutions, but also toward favoritism for those with the most political clout (which does not include the poor).”29 Thus, Reynolds cautions that how incentives change must be very carefully considered before policymakers attempt to collect more tax revenue from individuals with higher incomes or try to provide larger transfer payments.
to those with relatively low incomes. It is therefore expected that if work is taxed and non-work is subsidized, then less work will occur.30

**Potential Solutions**

Potential policy solutions include promoting upward mobility for those who are at risk of remaining immobile from the bottom income group through investments in education. This goes hand-in-hand with educational reform and incentives for improved, accountable education environments. Other possible policy solutions could include reform of current “safety net” programs towards the promotion of independence, employment, marriage, and savings.

Government should prioritize transfer spending by ceasing to give help to those who need it least. Given that market distortions hinder economic opportunities, corporate subsidies, burdensome regulations, and other obstacles stack the deck against new market entrants and have likely had negative effects on the current conditions of economic mobility and inequality.31 Broadening the tax base to reduce the incentive to let loopholes proliferate, thus reducing the progressivity of the tax system enables the economy to grow into a bigger pie from which all levels of income and wealth can benefit.

**Conclusion**

As Scott Winship states, one of the central problems with most discussion about income inequality is that it fails to distinguish between good and bad inequality and mobility. Winship reasons, “the issue of economic growth points to the central importance of absolute mobility—of ensuring that children do at least as well as their parents, and ideally much better. Economic growth is the best antipoverty policy we have and the best path to a prosperous middle class.”32 As for relative mobility, low economic mobility is inefficient; and when many people remain immobile from a particular income group, it likely represents a very costly misallocation of human capital.33

As time has passed, the perceptions of economic inequality and well-being have skewed the focus from addressing the needs of those at the lowest end of the scale towards the perceived injustice of how much the wealthiest earn. This has derailed the discussion in policy from successful solutions addressing economic immobility in favor of ensuring everyone receives a “fair” share. A refocus requires (1) critical consideration of how policies affect incentives; (2) identifying policies that increase well-being over time; and (3) education reform, which is the best long-term solution to ensure sustainable improvement of well-being and economic mobility.

**Measurement matters.**

Income, particularly money income, is only one dimension of well-being. Income, earnings, and wealth are all important components when accounting for well-being. Thus, the use of money income to determine well-being measurements such as the poverty rate and income inequality is flawed and can especially distort perceptions of well-being and misguide policy decisions.
**Multidimensional data better inform policy decisions.**
The need for a more comprehensive, multidimensional measurement of well-being that considers all forms of well-being and addresses differences in the definitions of income and its dimensions, such as household demographics, policy changes, price indices, and consumption patterns, is critical to providing a more accurate picture of America by which policymakers can identify better methods to address well-being.

**Economic mobility has not diminished.**
Recent claims that economic mobility has diminished have been undercut by the evidence when considering a multidimensional view of well-being and accounting for age, education, household structure, absolute and relative mobility, intergenerational and intragenerational mobility, and consumption disparities among different income groups.

**The U.S. experience fits the international trend.**
Skill-biased technological change is productivity enhancing for certain job types and negatively affects others. The effects of SBTC and education premiums on economic inequality are not particular to the United States alone. Instead, the United States is on trend with the rest of the world, both in advanced economies and in developing ones. Notably, these SBTC trends in labor have continued regardless of government structure, business cycles, political leadership, and government policies on revenue, outlays, and regulations.

**Redistributive programs are not long-term solutions.**
Over the long term, policies that aim to address economic inequality by making the tax code more progressive and expanding social welfare programs are unlikely to significantly reduce income inequality. In addition, the recent safety net expansions have further increased labor market inefficiency and expose a greater number of people to the uncertainty resulting from the political process about how “safe” safety net structures are in terms of continued benefits.

**Access to quality education is the long-term solution.**
The best way government can address economic inequality and barriers to economic mobility is to improve access and opportunity for quality education—a solution which requires massive reform as part of its success.

**Policy design is critical to a solution’s success— incentives matter.**
Because current policy solutions to address economic inequality and immobility employ certain elements in the tax code and social welfare programs, there is significant danger of creating poverty traps that create disincentives to work because the combination of taxes and loss of benefits create high effective marginal tax rates. Thus, serious consideration of policy design with regard to behavioral effects is most critical when it comes to decisions made about program phase outs and tax policy.

Government programs to economic inequality must be geared towards long-term solutions; government cannot afford and ultimately fails to help
everyone in the current framework. Economic growth, international competitiveness, and long-awaited critical reforms in education will engender absolute and relative economic mobility. As aforementioned in a prior JEC commentary examining education and skills-biased technological change, the most promising approach policy-wise is to take on true reform to improve the quality of education in America so that all Americans have the opportunity to enhance their skills, increase their lifetime earnings, and achieve upward mobility in the sense that it is earned, not given.


7 JEC calculations using Haver Analytics.


16 Haskins, 2012.


