Introduction

In a 1963 speech on the economy, President John F. Kennedy remarked that “a rising tide lifts all boats.” This famous phrase accurately captured the broad-based economic prosperity experienced by the United States at that time. Economists have characterized the quarter century following World War II as the “Great Compression.” From 1947 to 1973, average household income increased an impressive 2.6% annually in inflation adjusted terms. Remarkably, real incomes for households in the bottom 20 percent of the income distribution grew 3 percent annually while real incomes for the top fifth rose by 2.5% annually (Goldin and Katz, 2009, 28). This era witnessed both a rapidly expanding pie and a greater equality among its slices.

This trajectory, however, has not been sustained as incomes have become less equal in the U.S. during the last 30 years. Economists and some commentators have labeled the current period of rising income inequality and diminished economic growth as the “Great Divergence” (Noah, 2010). “From 1973 to 2005, the bottom-fifth of families realized almost no growth in real income, whereas the top fifth enjoyed an average annual gain of 1.6 percent” (Goldin and Katz, 2009, 28). It is important to point out that the recent increase in income inequality is not a phenomenon faced solely by the United States; it also has characterized the experiences of other OECD countries. The common experience of rising inequality within these nations may largely reflect the structural evolution that all developed economies face.

This paper analyzes this great divergence in economic fortunes among American households. It begins by examining the evidence of increasing economic inequality in the United States over this time period. From there, we consider the complex factors responsible for this rise. Then, we explore American ideals of equality. Such an exploration is important in evaluating policy prescriptions that address inequality. Next, the paper describes changes in economic mobility during this period. Lastly we briefly outline several broad areas for potential policy responses that are consistent with American values.

The Evidence of Increasing Economic Inequality

The Gini Index (GI) is commonly used to measure the degree of income equality in a geographic area or a nation. The range of GI is from 0 to 1.00. A nation or region is said to have a completely unequal distribution of income when the GI equals 1.00 (one group receives all the income), and to have a completely equal distribution when the GI equals 0 (each group has the same income). The evidence from a variety of sources suggests that the income distribution in the US has become less equal over past 30 years.

The most recent and comprehensive data set comes from the nonpartisan Congressional Budget Office (Congressional Budget Office, 2011, 7). In measuring income inequality, the CBO uses market income as reported on income tax forms plus employer paid health care insurance (Appendix A). In 1980 the GI stood at around .48 and by 2008 it reached .59. This represents a 23 percent increase in income inequality in the nation over the past 27 years. The subtraction of capital gains from market income data reduces the degree of income inequality. However, the GI for market income excluding capital gains has trended higher as well meaning that capital gains alone do not explain the upward trend in U.S. income inequality.

In measuring a nation’s income distribution, economists divide a nation’s households into quintiles with each quintile accounting for 20 percent of the population. The CBO study also shows that income has become much more concentrated in the upper quintile of households with income accruing to the top 1 percent of households being a major source of the increase in GI, (Congressional Budget Office, 2011, xi). Since 1979, every quintile experienced a decline in the share of market income except for the highest (or
fifth) quintile. A closer examination shows that only the top 1 percent of households increased its share of market income over the period.

More specifically, the CBO found that, between 1979 and 2007, income grew by: 275 percent for the top 1 percent of households and 65 percent for the next 19 percent of the highest quintile. Income rose approximately 40 percent for the next three quintiles and 18 percent for the bottom 20 percent, (Congressional Budget Office, 2011, x). The evidence once again supports the position that income inequality has been growing at the very top of the income distribution in the U.S.

A number of analysts contend that these measures overstate the rise of inequality over this time period. One argument claims that changes in the tax code have caused an under reporting of income for the lower quintiles by ignoring other sources of income such as employer paid health insurance. In addition, the reduction in capital gains tax rates have encouraged the wealthy to realize their capital gains, thus inflating incomes in the upper end of the income distribution. While there is some validity to these criticisms, their impact on the analysis is marginal at best.

National and Local Area Income Inequality
Another dimension is the spatial distribution of income inequality. Income inequality is not uniform throughout the United States. The U.S. Census Bureau map of the United States shows the GI at the county level from 2006 to 2010. Income inequality tends be concentrated in metropolitan areas and in the South. However, as the map illustrates, there are pockets of high income inequality elsewhere in the nation (United States Census Bureau, 2012, 2).

Another way to look at income inequality is to estimate the income share of families in the top decile (ten percent) using income tax data that has been collected since 1913 (Saez, 2013, 8). The top 1 percent of families’ share of income in the U.S. has risen from about 8 percent in 1970 to 23 percent in 2007. Meanwhile, the total income accruing to the other 9 percent of families remained relatively flat over most the past 90 plus years.
International Comparisons: Within Nations and Across Nations

Data on income equality within nations and across nations over time supports the assertion that the U.S. has a higher concentration of income inequality than any other developed country (Economic Policy Institute, 2013, 84). Moreover, the rate of increase in income share by the top 1% is higher in the U.S. than in 15 other developed countries. If we look from an alternative perspective, we see economic inequality across nations (rather than within) has declined. “Global inequality has begun to fall as poorer countries catch up with richer countries” (The Economist, 2013, 4). This surely is good news as global economic growth has significantly reduced poverty in emerging economies. The focus, here, however is on rising inequality within the United States.

Causes of Rising Income Inequality

In this section of the paper we explore some possible causes for the rise in income inequality in the U.S. Researchers have had a difficult time ascribing blame to just one factor (Economic Report of the President, February, 1997). We believe it is the confluence of a number of factors that best explains the rising income inequality in the U.S. These factors include skill-biased technological change, globalization, institutional & organizational change, the rise of winner-take-all markets, taxation policy, and immigration.

Skill-biased Technological Change

This idea here is that technological innovation has favored knowledge-based occupations. The implication is that automation and new information technologies have greatly reduced the number of high paying low skilled jobs. At the same time individuals with the requisite technological skills are relatively scarce and in high demand. The automobile industry, for example, has seen a large reduction in high paying low skill jobs largely caused by the wide adoption of labor-saving automation. At the same time the automobile industry and other manufactures have had difficulty finding skilled workers to do more complex tasks.

This line of reasoning suggests that digital and electronic innovations have simultaneously driven down the wages of a large number of low skilled workers numbers while increasing the wages of a much smaller group of highly trained and skilled workers. Even though innovation has contributed to economic inequality, it does not explain everything. Most of the gains in income have gone to the top 1 percent of the income distribution. While it is true that education and training are highly correlated with earnings, individuals in the top 1 percent are not necessarily any better educated or trained than people further down the income distribution who have not experienced extraordinary gains in their income (U.S. Census Bureau, 2006).

Globalization

This argument contends that the globalization of the world’s economy has exposed American workers to greater competition. More than at any time in history, less skilled inexpensive foreign labor is in direct competition with U.S. workers. Improvements in transportation, communication and the relaxation of trade restrictions have made foreign made goods more accessible to U.S. consumers. Thus, U.S. workers have become more susceptible to being displaced by inexpensive foreign competition, with low-skilled U.S. workers facing the fiercest competition. Conversely the greater the skill level of workers, the less likely they are to lose their jobs to unskilled foreign workers. This situation has exacerbated income inequality in this country.

While globalization has some explanatory power, the rise in income inequality was taking place before long before the global trade pacts and the improvements in transportation were in place (Timothy Noah, 2010). Thus, globalization while part of the story cannot account for the long term trend in U.S. income distribution or be the sole explanation of why the top 1 percent has seen a large increase in its share of income.

Winner-take-all-markets (WTAM)

The WTAM hypothesis takes the position that society has been paying larger premiums to the very best in a profession. Whether in academics, athletics, business,
entertainment, medicine, law, or other professions, the top people are commanding ever higher premiums above the average income level in their profession. A good example of a WTAM is the market for tournament golfers. “When he was at the top of his game Tiger Woods was making $12 million in winnings and $100 million in endorsements whereas the second best golfer, Phil Mickelson, was making $4 million in winnings and $47 million in endorsements and the third best was making less than 15 million combined” (Zingales, 2012, 23).

The reasons for this are many, but at the heart of the story is that new communication technologies have lowered the cost of reaching vast markets. This creates the potential for huge profits for those people or firms who are marginally better at their activity than the competition. Simply stated, new technologies now give markets the choice between selecting a person or a firm who is very good at what they do and choosing a performer who is the very best in their field. In a WTAM world a person or firm that has a slight edge over the competition will have great potential to command an increasing share of the income pie (Frank and Cook, 1996). It is important to recognize that the increase in income inequality was underway before the emergence of these technological innovations. Therefore, WTAM can explain some, but not all of the growing income disparity in this country.

Institutional & Organizational Change: CEO pay and the decline in unionization

This explanation says that the dramatic rise in CEO pay has contributed to of rising income inequality in the U.S. The chart below shows how the ratio of average CEO to average compensation to average production worker compensation has changed over the past 40 years. In 2011 the average CEO compensation was approximately 209 times that of the average person in that organization (Economic Policy Institute, 2013, C.4 118). Anecdotal evidence suggests that the number has risen since 2011.

So what are the reasons for this trend? Much of the increase in CEO pay stems from changes in corporate governance practices that were widely implemented in the late 1980s and early 1990s. Changes in executive compensation through the increase in the use of stock options and other pay for performance schemes were designed to align managerial and shareholder interests (Holmstrom and Kaplan, 2001). Instead of replacing traditional forms of compensation like salary, these new schemes often were added onto these existing methods. Evidence suggests that the strong influence of CEOs on the membership of Boards of Directors influenced the adoption of these highly favorable payment arrangements (Bebchuk and Fried, 2003).

In 1973, 26.7 percent of all wage and salary workers were union members. By 2011, union participation had fallen to 13.1 percent of the labor force. Critics say the decline in unionization has allowed CEOs to capture a greater percentage of a firm’s productivity
gains, a.k.a. profits (Economic Policy Institute, 2013, C.4 269). The chart below shows a close correlation between productivity gains and real medium household income until about 1979. After that, gains in worker productivity have had much less influence on real medium family income (Economic Policy Institute: Economic Indicators, 2013).

Taxation policy
Taxation policy and the role that it may have played in accelerating income inequality has been a hot button issue in the U.S. The argument is well known and straightforward. Tax cutting policies have had the largest impact on households earning at or above the 95 percentile. The chart below shows the federal tax rates for various percentiles of tax paying units in 1960 and after the last major round of tax rate reductions. The data indicates that our nation’s federal tax system has become much less progressive. In 1960 the top 0.01 percent of households faced a combined rate of about 70 percent; in 2004 the combined rate fell to rate of about 30 percent (Piketty and Saez, 2007).

The chart below shows after tax income share for various percentiles from 1979-2007. The only group to experience an increase was the top 1 percent of households. However, some researchers believe that tax rate reductions account for just a small portion of the great divergences (Noah, 2010, 1). They point out that tax rate reductions had little impact on changing income distribution in this country as shown in the CBO chart (Congressional Budget Office, 2011).

Immigration
The immigration of lower skilled workers into the U.S. it’s argued has pushed down wages rates for the unskilled workers. The Immigration and Nationality Act of 1965 which liberalized immigration restrictions led to significant increases in immigration rates into the United States. “Since 1970, the foreign-born share of the U.S. population (legal and illegal) has risen from 4.8 percent to 11 percent. More than half of U.S. immigrants now come from Mexico, Central and South America, and the Caribbean. Although a substantial minority of immigrants are highly skilled, for most immigrants incomes and educational attainment are significantly lower than for the native-born” (Noah, 2010, 5).

The rise in immigration has had the greatest negative impact on the incomes on low-skilled, low-income workers. Studies show that, from 1980 to 2000, Mexican immigrants alone reduced the incomes of native-born high school dropouts by over 8 percent (Noah, 2010, 5). While immigration has had some impact in increasing economic inequality, its effect is much smaller than the other causes that we have presented. Higher rates of immigration, for example, do little to explain the rapid rise in the top 1 percent’s income level.

While we have discussed a number of causes of rising inequality, it is impossible to isolate one from another. Skill-biased technological change, globalization, and winner-take-all markets, for example, are deeply interrelated in their effects on inequality. Competitive pressures from increasing globalization incentivize firms to adopt new technologies that harm low-skilled workers but reward highly skilled workers. These new technologies also act to expand global markets by reducing communication and search costs for customers and by facilitating coordination among businesses and their suppliers on a greater geographical scale. The phenomenon of winner-take-all markets similarly depends upon both access to global markets and the utilization of new information and communication technologies to reach these global markets.
Equality and American Values
Does the dramatic increase in economic inequality over the last 30 years represent a major problem? Whether inequality is likely to be a major concern to citizens depends upon how Americans view inequality. The political feasibility of any policy response to inequality needs to be consistent with American values. Though equality is highly valued ideal, Americans have a rather unique conception of equality compared with peoples from other countries and cultures.

Perhaps no passage better captures the American notion of equality than this celebrated phrase from the Declaration of Independence: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights that among these are Life, Liberty, and the pursuit of Happiness.” Here, the emphasis is on the equality of rights among citizens rather than on equality of outcomes or results. Consistent with this rights-based conception of equality are the American ideals of social equality, equality before the law, and equality of opportunity. As ideals, Americans recognize that each hasn’t been fully realized but remain important goals that society should always strive to achieve.

The ideal of social equality rejects distinctions based on “rank and deference in social relations” (Ladd, 1994, 9). In general, Americans abhor the idea of privilege associated with class, birthright, religion, race, or ethnicity. “‘I’m as good as you are’ – that’s the ideal of social equality” (Ladd, 1994, 10). Individuals should be judged on the basis of their character, capabilities, and accomplishments, not on criteria divorced from their own efforts. Equality before the law as a principle refers to all individuals receiving equal treatment and due process under the law. The right to legal representation and the public support of legal services for the poor reflect societal efforts to ensure greater equality before the law.

There are two facets that constitute equality of opportunity as an ideal. Formal equality of opportunity represents a “standard of decision-making, stipulating that all people are treated the same, except when distinctions can be explicitly justified. This standard has been used to define fairness in lending, housing, hiring, wage and salary levels, job promotion, voting rights, and other concerns. Artificial barriers, prejudices, and personal preferences should neither restrict nor enhance opportunities for anyone” (De Vries, 2005). The focus on “equal treatment” and the opposition to “artificial barriers” is consistent with the ideals of social equality and equality before the law.

The second facet is known as substantive equality of opportunity. In addition to ensuring that individuals are judged fairly on their merits, substantive equality of opportunity calls upon society to “provide good enough opportunities for all its members to develop their native talents so as to become qualified for competitive positions. The idea here would be that there is some threshold level of opportunity to develop one’s native talents into skills to which all are entitled” (Arneson, 2002). Americans have strongly supported public efforts aimed at giving all its citizens opportunities to cultivate and expand their capabilities. Laws requiring that all children receive a basic education extend back to the colonial period of American history. “The whole thrust in making a good education broadly available is bringing, as the ideal, all segments of the public to the starting line with more or less an equal chance to succeed. Extending education enlarges opportunity, but, at the same time, doesn’t guarantee success” (Ladd, 1994, 41).

While these ideals have informed political debate and the substance of policy, Americans generally have not supported governmental efforts to ensure greater equality of results. Though all taxation and expenditure policies unavoidably result in a redistribution of income, Americans have not viewed the reduction of income inequality as a legitimate goal of governmental policy. Arguments supporting progressive taxation traditionally have been based on attaining a “fair” distribution of the tax burden rather than as a means of redistributing income from the rich to the poor. The goal of anti-poverty programs like welfare is to provide some minimal economic support to those unable to fend for themselves but do not represent a legitimate means of narrowing income inequality (Plattner, 1979).

Most Americans strongly believe that those who work hard fully deserve the rewards they receive for their efforts. Opinion polls taken during different time periods in American history have shown a remarkable consistency in American attitudes towards governmental efforts that redistribute income to remedy economic inequality. In 1938, a Roper Organization poll asked respondents whether a top limit should be placed on income with any excess income coming to the government as tax revenue. Despite the economic hardships of the Great
Depression, only one-third of respondents supported such a limit (Ladd, 1994, 41).

Inequality and Economic Mobility
Not only are policies that reduce income inequality through income redistribution inconsistent with American values, most economists believe that such attempts would be harmful to economic growth. In Equality and Efficiency: The Big Tradeoff, economist Arthur Okun described the problem with efforts to achieve income equality. “In pursuing such a goal, society would forego any opportunity to use material rewards as incentives to production. And that would lead to inefficiencies that would be harmful to the welfare of the majority. And any insistence on carving the pie into equal slices would shrink the size of the pie” (Okun, 1975, 48).

Unequal incomes represent the carrots and sticks that ensure that resources are employed in their most productive uses. Because the rich save and invest more of their income, income inequality also supports a wealth accumulation process that fuels economic expansion and job creation. Some degree of income inequality is therefore a necessary component of a rapidly growing economy which can improve the standard of living for all income groups because it expands the economic pie. Though a rising tide lifts all boats, it is reasonable to expect that the yachts ascend further than the dinghies if the actions of yacht owners largely are responsible for the rising tide.

Despite the recognition of the economic importance of income inequality, a number of recent studies suggest that its sharp rise over the last 30 years has not enhanced incentives for productive effort and may reflect growing inefficiencies in the economy. Such an increase in inequality would be less problematic if accompanied by high rates of economic mobility so that a significant proportion of people who start off earning low incomes move into higher income categories over time. These studies, unfortunately, paint a picture of an economy characterized by both increasing income equality and declining income mobility during this period. The decline in income mobility is particularly troubling because it may indicate a decline in substantive equality of opportunity during this period.

One way of measuring economic mobility is by examining intragenerational mobility. Intragenerational mobility measures the “likelihood that a person will move from one segment of the income distribution to another” (Zingales, 2012, 26).

Some studies show a decline in intragenerational mobility since the 1970s. “In the 1990s, ... 36 percent of those who started in the second poorest quintile of the income distribution stayed there, versus 32 percent in the 1980s and 28 percent in the 1970s” (Zingales, 2012, 26).

Most studies analyzing income mobility focus on intergenerational mobility which measures the correlation of parents’ incomes with their children’s earnings. The idea here is to determine whether a parent’s income is a good predictor of their children’s income. “In a society with broad equality of opportunity, the parents’ position on the income ladder should have little impact on that of their children.” (The Economist, 2012, 10).

A well-accepted statistic for intergenerational mobility is intergenerational elasticity in earnings (IGE). The IGE is “the percentage difference in earnings in the child’s generation associate with the percentage difference in the parental generation. For example, an [IGE] of .6 tells us that if one father makes 100% more than another then the son of the high income father will, as an adult, earn 60% more than the son of the relatively lower income father. An elasticity of 0.2 says this 100% difference between fathers would only lead to a 20% difference between the sons. A lower elasticity means a society with more mobility” (Corak, 2011, 2).

Economists Daniel Aaronson and Bhashkar Mazumder calculated US IGE estimates for each decade from 1940 to 2000. The figures below show that IGE declined from 1940 to 1980 but increased dramatically in the 1990s and 2000s. These results imply that economic mobility increased for the first four decades of their survey and dramatically fell during the last two decades (Aaronson and Mazumder, 2007).

Elastcities between parental income and sons’ earnings, 1950–2000
Note: The higher the intergenerational elasticity (IGE), the lower the extent of mobility. The IGEs shown are for 40- to 44-year-old sons.

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

In a different study, economist Miles Corak calculated estimates of intergenerational elasticity between father and son earnings for 22 countries, including the United States. Cross-country comparisons show that the United States does not compare favorably with most developed countries. Of the OECD nations, only Great Britain and Italy score lower than the United States with regard to economic mobility. The significant difference in IGE scores between the United States (0.47) and Canada (0.19) is particularly striking, given the relative cultural similarities between the two nations (Corak, 2011). The relatively poor performance of the United States seems to contradict American notions that see the United States as almost uniquely the land of opportunity.

Intergenerational correlations between the earnings of fathers and sons in OECD countries

Note: The higher the intergenerational elasticity, the lower the extent of mobility.

Source: Adapted from Corak (2011, Figure 1)

Perhaps Corak’s most interesting results are given in the next figure. Here, Corak “plots the intergenerational earnings elasticities [of 22 countries] against a cross-sectional measure of inequality (the Gini Coefficient)” (Corak, 2011, 5). The figure clearly indicates that countries with high degrees of income inequality also suffer from low rates of intergenerational mobility.

While Corak’s analysis does not explain the reasons for this negative correlation between income inequality and economic mobility, it does suggest that economic inequality may be self-perpetuating. “From violin lessons to tutors for tests, richer parents can invest more in their children, improving their chances of getting into the best universities” (The Economist, 2012, 22). The decentralized funding of public education in the United States translates into significant quality differences between wealthy and poor districts. “Richer neighborhoods can afford better schools, which reinforces the growing geographical gap between different social groups” (The Economist, 2012, 12).

These gaps between social groups have been accentuated by a rise in residential segregation by income over the last 30 years. A Pew Research Center study “finds that 28% of lower-income households in 2010 were located in a majority lower-income census tract, up from 23% in 1980, and that 18% of upper-income households were located in a majority upper-income census tract, up from 9% in 1980” (Fry and Taylor, 2012). Such changes are further reinforced by other social trends. “In 1960 American couples with two college-educated partners accounted for only 3% of the total. Today that figure is 25% and in the top 5% of the income distribution it is 75%” (The Economist, 2012, 14).

Policy Responses

In this section, we briefly consider a number of broad policy responses to the twin problems of economic inequality and declining economic mobility. The data presented in the previous section strongly suggests that increases in economic inequality are linked to greater inequality of opportunity among its citizens. Policy responses designed to expand overall
opportunity are consistent with American values and simultaneously help grow the economic pie by encouraging a more efficient use of resources. Here, we show how government can improve outcomes by doing more in some arenas while doing less in others. Given the breadth and complexity of these issues, we only provide a brief sketch of several areas where policy changes may have a positive impact.

Human Capital
Earlier in the paper, we described how skill-biased technological change increased income inequality by increasing the demand for highly skilled and educated workers while reducing the demand for less skilled workers. The rising wage premium for college educated workers is strong evidence for this phenomenon. “Employers are paying the typical four-year college graduate [without graduate school] 75% more than they pay high school grads. Twenty-five years ago, they were paying 40% more” (Wessel, 2007, A2).

A skeptic of this line of reasoning could correctly point out that other periods of technological change similarly increased the demand for skilled workers yet did not lead to greater income inequality. The problem with the story we have told so far is that it focuses solely on demand without considering supply. At the start of the 20th century, for example, advances in electricity, communications, and continuous process machinery created a demand for managers, clerical workers, and highly skilled blue collar workers (Brynjolfsson and McAfee, 2011). “[O]ffice workers had to know how to operate typewriters and adding machines. They had to master bookkeeping, billing procedures, and stenography” (Noah, 2010). The education system in the United States during this era successfully accommodated this increase in demand for higher skilled workers. Workers with a high school level education had learned the skills needed to meet this new demand. “Average years of schooling increased rapidly for Americans born from 1875 to 1950 (and educated in the United States).

The increase in supply of higher skilled workers reflects Americans’ strong commitment to education. “Indeed, America led the world in universal education in the first half of the 20th century, beginning with the movement in 1910 to 1940 to expand free compulsory education to high school years and continuing with the post war transition to mass college attendance” (Goldin and Katz, 2009, 30). This increase in the supply of educated workers effectively reduced the wage premium for educated workers, thereby supporting the increasing income equality experienced during the Great Compression.

The wave of new computer and information technologies over the last three decades has once again increased the demand for a more highly educated workforce. Economists Erik Brynjolfsson and Andrew McAfee describe these changes. “While computers win at routine processing, repetitive arithmetic, and error-free consistency and are quickly getting better at complex communication and pattern matching, they lack intuition and creativity and are lost when asked to work even a little outside a predefined domain” (Brynjolfsson and McAfee, 2011, 55). People who possess higher order, critical thinking skills are in greater demand while moderately skilled workers are increasingly be replaced by these new technologies. “In particular, softer skills like leadership, team building, and creativity will be most important. They are the areas least likely to be automated and most in demand in a dynamic, entrepreneurial economy” (Brynjolfsson and McAfee, 2011, 63). The greater need for these kinds of skills has increased the demand for workers with college-level and graduate degrees.

The difference during this period is that supply has not kept up with demand. “A sharp slowdown in the increase of educational attainment and high school graduation rates occurred for those born after 1950. College graduation rates began to slow and high school graduation reached a plateau” (Goldin and Katz, 2010, 31). This decline in the rate of growth in educational attainment is striking. A typical American born in 1945 received two more years of schooling than their parents while educational attainment of a typical American born in 1975 exceeded their parents’ by only 6 months (Noah, 2010). The inability of the education system to adequately increase the supply of educated workers has dramatically increased the relative wages of those with college degrees.

In the meantime, much of the developed world has caught up and surpassed the United States. “The United States, once the world leader in the proportion of people finishing high school has fallen to near the bottom of the (rich and relatively rich) nations that belong to the Organization of Economic Cooperation and Development” (Goldin and Katz, 2010, 31). Though the United States leads the world in the number of students who go to college, it “has fallen from first to tenth in the share of citizens who are college graduates” (Brynjolfsson and McAfee, 2011, 61).
Debates over how to reform the educational system at all levels are widespread and are well beyond the scope of this report. We, therefore, would like to briefly mention a couple of other ways to improve educational outcomes. First, the ability of workers to update their skills throughout their working lifetimes is increasingly important in a dynamic and innovative global economy. The United States badly trails other developed economies in providing opportunities for job retraining. The United States government “spends barely more than 0.1% of GDP of ‘active labor market policies’ to get the less skilled back to work, one-fifth of the OECD average” (The Economist, 2012, 24).

Not all of the new jobs that are in great demand require a college degree from a four year institution. Greater support for technical and community colleges that possess specialized knowledge of the needs of local businesses can help provide workers with the appropriate skills to fill this demand. In addition, University of Chicago economists Raghuram Rajan and Luigi Zingales believe “there may be reason to rethink the entire structure of higher education, a system designed at a time when students typically left the university for a career with one employer. We need more modular degrees and lifelong admission to a university (at least for the general programs) – so that the student can pick and choose what she wants and when she needs it” (Rajan and Zingales, 2003, 304).

Second, scientists increasingly have recognized the critical importance of early childhood experiences in impacting the development of non-cognitive abilities like perseverance, motivation, and attentiveness. They are finding that these skills are just as important in determining future success as cognitive skills as measured by traditional IQ tests. Children growing up in disadvantaged families, however, are less likely to develop these non-cognitive skills in their home environments. By increasing non-cognitive abilities, early intervention through the provision of pre-school opportunities like HeadStart for these children has shown positive, long-term impacts on performance in later life. The development of strong non-cognitive abilities becomes increasingly important in world that highly values softer skills. Programs that foster these skills increase equality of opportunity by ensuring that accidents of birth are not the determining factor of one’s future success (Heckman, 2012).

Investments in Infrastructure and Research & Development
Public investments in infrastructure can play a critical role in expanding economic opportunities. “In the long run, investment in infrastructure boosts productivity by enabling people and goods to get to places faster, communicate more easily, spend less time and money on repairs and so on. One recent study found that the construction of a road typically led to an increase in economic activity between three and eight times bigger than the initial outlay within eight years after its completion” (The Economist, 2013, 13). The American Society of Civil Engineers (ASCE) recently gave the United States a grade of D on the overall state of its infrastructure (Brynjolfsson and McAfee, 2011, 67). The ASCE also found that in 2009 traffic delays cost Americans over $78 billion in wasted time and gasoline with an additional $67 billion going to car repair attributable to poor road conditions (The Economist, 2013, 13).

The recent fiscal crises at both the federal and state levels have constrained the government’s ability to tap traditional sources in funding infrastructure projects. States and municipalities, however, are creatively using “public-private partnerships” (PPP) to pay for such projects. PPPs “help pair investors with projects that will generate a revenue stream to be hypothecated to cover the cost of the original investment, plus a return” (The Economist, 2012, 14). By eliminating impediments to economic expansion, improvements in transportation and communication infrastructures promise to expand opportunities.

The creation of new knowledge from public investment in basic research and development has been an important driver of economic growth in the past. Private investment in basic research is often inadequate because of the enormous costs involved for any one firm and because the benefits are often subject to spillover effects.

For example, the government funded Human Genome Project which mapped the human genome cost taxpayers over $3.8 billion over 15 years. An industry study claims that the project “helped drive $796 billion in economic activity and raised $244 billion in personal income; it supported 310,000 jobs in 2010. These numbers may be exaggerated, but the scale of the impact is clear across such vast fields as agriculture and medicine and new areas such as gene therapy” (Zakaria, 2012). Despite the success of such investments, federal funding of basic research as a percentage of GDP has been declining for decades. “In a knowledge economy, American jobs will depend more on scientific research than they did in the 1950s, yet we spend much less as a share of GDP” (Zakaria, 2012).
Reducing Regulatory Barriers to Entry
Sometimes the best thing that government can do to expand opportunities is to get out of the way. The elimination or reduction of regulatory barriers to entry can create new opportunities to foster new business creation. “In too many industries, elaborate regulatory approvals are needed from multiple agencies at multiple levels of government. These too often have the implicit goal of preserving rents [profits] of existing business owners at the expense of new businesses and their employees” (Brynjolfsson and McAfee, 2011, 67).

The United States’ intellectual property regimes are badly in need of reform. The large increase in the number of patents granted over the last several decades has had a dampening effect on innovation. The problem of overlapping patent rights has created a “patent thicket” that new innovators have to confront in commercializing new products and processes. The system also encourages the formation of “patent trolls.” Patent trolls are firms that buy up patents, not for manufacturing purposes but solely to engage in litigation. These developments undermine the rationale for having a patent system. The expansion in the length of term under copyright coverage under the Sonny Bono Copyright Extension Act has served the interests of existing copyright holders rather than encourage the creation of new content (Brynjolfsson and McAfee, 2011, 69).

Conclusion
In addressing the challenges of economic inequality, policy proposals should focus on advancing substantive equality of opportunity. By giving citizens opportunities to develop their own skills and capabilities, these efforts have the effect of increasing social mobility as individual’s abilities to compete for higher level positions in society improve. These policies thus can decrease economic inequality while expanding the economic pie as the potential of scarce human resources is more fully realized.

Another way to deal with income inequality is through the redistribution of income. Redistributive policies, however, face a number of problems. First, such policies are often politically infeasible because they conflict with American values. Second, the redistribution of income can dampen economic growth by distorting economic incentives. Perhaps the most important rationale for avoiding income redistribution is best described by the Nobel-Prize winning economist, James Heckman. “There are many calls to redistribute income to address poverty and promote social mobility…. [W]hile redistribution surely reduces social inequality at a point in time, it does not, by itself, improve long-term social mobility or inclusion” (Heckman, 2012, 14). Thus governmental policies need to provide people a “leg up” rather than a “hand out.”

Appendix: A

Measuring Income
CBO constructed definitions for Market income, Transfers income, and Federal taxes, (Congressional Budget Office, 2011, 37)
- Market income — includes all cash income (both taxable and tax-exempt), taxes paid by businesses (which are imputed to households as described below), and the value of income received in-kind from sources such as employer-paid health insurance premiums. The taxes paid by businesses are the imputed value of corporate income taxes (which are considered to be part of capital income) and the employer’s share of payroll taxes (which are considered to be part of labor income). They are included in the measure under the assumption that household income would have been higher by a corresponding amount in the absence of those taxes.
- Transfers income — adds cash transfer payments (such as Social Security, unemployment insurance, and welfare benefits) to market income, along with estimates of the value of in-kind benefits (from Medicare, Medicaid, the Children’s Health Insurance Program (CHIP), the Supplemental Nutrition Assistance Program (formerly known as the Food Stamp program), and other programs).
- Federal individual and corporate income taxes, social insurance (payroll) taxes, and excise taxes. In this analysis, CBO did not subtract other federal taxes (such as estate and gift taxes) or state and local taxes in constructing after-tax income.
References


