



Global Development Policy Center
Economics in Context Initiative

Social and Economic Inequality

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<p>NOTE – terms denoted in bold face are defined in the KEY TERMS AND CONCEPTS section at the end of the module.</p>
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1. INTRODUCTION

As the United States economy began recovering from the Great Recession of 2007-2009, economic data indicated that the vast majority of all income growth was going to the richest Americans. From 2009-2012, over 90% of new income accrued to just the top 1% of income earners. As the economy recovered further, new income distribution was less lopsided, but still uneven. The top 1% captured over half of all income growth in the U.S. over the period 2009-2015.¹

The trend toward higher economic inequality is not limited to the United States. Over the last few decades, inequality has been increasing in most industrialized nations, as well as most of Asia, including China and India. And while inequality has generally been decreasing in Latin American and Sub-Saharan African countries, these regions still have the highest overall levels of inequality.²

Analysis of inequality, like most economic issues, involves both positive and normative questions. Positive analysis can help us measure inequality, determine whether it is increasing or decreasing, and explore the causes and consequences of inequality. But whether current levels of inequality are acceptable, and what policies, if any, should be implemented to counter inequality are normative questions. While our discussion of inequality here focuses mainly on positive analysis, we will also consider the ethical and policy debates that are often driven by strongly-held values.

2. DEFINING AND MEASURING INEQUALITY

We begin our discussion of inequality by describing some objective measures of inequality, which allow us to draw comparisons over time and across societies. We will first consider *what* we are measuring, and then *how* we measure it.

2.1 Inequality of What?

When the subject of inequality is raised, most people think of income or wealth inequality. These are indeed central to any economic analysis of the topic. But it is also important to recognize that inequality is a broader concept that extends beyond the realm of money.

Let us consider a few examples. Vast inequality exists in the quality of health care across the world. Preventable or treatable diseases in numerous tropical countries (such as malaria, measles, and tuberculosis) cause average life expectancy to be significantly shorter than in the United States or in other rich countries. There is also significant health inequality within many countries. According to a 2017 analysis, average life expectancy in the United States is 10-15 years longer for the wealthiest Americans than for the poorest.³ Early reports on the global pandemic of COVID-19 also expose inequities in the U.S. health system, as the impacts fall disproportionately on low income households and communities of color (See Box 1).

There is also a considerable imbalance in education, both nationally and internationally. Children in Australia can expect to receive, on average, about 20 years of schooling—the most years of any country. Meanwhile, the average for children in the Sub-Saharan countries of Niger, Chad, and the Central African Republic is less than eight years of education.⁴ Inequalities arise not only due to

income differences, but also due to race and gender. In the United States, the difference in academic achievement between white and black students has decreased significantly in recent decades but still remains evident. However, the achievement gap between students from low- and high-income families in the U.S. has dramatically increased.⁵ There are mixed results for gender-based educational inequality. By 2016, 24 countries had fully closed the educational gap by gender, while in 17 countries women still had less than 90% of the educational outcomes that men have.⁶

BOX 1: COVID-19 AND ECONOMIC INEQUALITY

Prior to the emergence of COVID-19, income inequality in the United States was already at or near record levels (see Figure 4). As the pandemic persists, it is becoming increasingly clear that it will drive inequality even higher. A survey conducted in April 2020 found that 84% of economic experts believed that the COVID-19 crisis will lead to a disproportionate economic impact on low-income workers.⁷ Federal Reserve Chairman Jerome Powell said in May 2020 that:

The pandemic is falling on those least able to bear its burdens. It is a great increaser of inequality. It is low-paid workers who are bearing the brunt of this and women to an extraordinary degree.⁸

There are at least three related reasons why COVID-19 is increasing economic inequality in the U.S.:

1. According to the U.S. Bureau of Labor Statistics, workers with higher incomes are more likely to be able to work from home.⁹ In 2018 over 61% of workers with earnings in the top 25% were classified as being able to work from home. Meanwhile, only 15% of workers in the bottom half of earnings were classified as being able to work from home. Thus higher-income workers have been more likely to make the transition to working at home, or were already working from home, and have avoided a disruption to their employment from the pandemic.
2. Sectors of the economy disproportionately affected by COVID-19 have lower average wages. The BLS identifies industries such as restaurants, transportation, entertainment, and retail as those that have been more exposed to negative economic impacts from the pandemic.¹⁰ These “highly exposed” sectors have average full-time earnings of \$17/hour. Meanwhile, those sectors classified as “not highly exposed” to impacts from the pandemic have average earnings of \$23/hour. On average, the higher a family’s income prior to the pandemic, the more likely their earnings came from employment in a sector considered not highly exposed.
3. Less educated, and thus lower income, workers have been more likely to lose their jobs as a result of the pandemic. According to the BLS, in May 2020 the unemployment rate was 15.0% for high school graduates but 7.2% for those with a college degree.¹¹ Comparing May 2020 to May 2019, the unemployment rate rose by nearly 12 percentage points for high school graduates, but only 5 percentage points for college graduates.

The income losses by lower-income groups are particularly damaging given their lack of wealth. Wealth inequality in the U.S. is significantly higher than income inequality (see Figure 7). Households with little to no wealth have nothing to fall back on if their income is disrupted from the pandemic. Further, initial statistics suggest that people in low-income and minority households have been more likely to contract, and die from, COVID-19.¹²

Of course the increase in economic inequality as a result of COVID-19 is evident not just in the U.S., but across the world. Previous health crises, such as SARS in 2003 and MERS in 2012, caused a rise in affected countries' Gini coefficient that persisted for years.¹³ The World Bank has estimated that the pandemic will push about 50 million people globally into extreme poverty.¹⁴ Sub-Saharan Africa, with limited health resources, is likely to be the hardest hit region with an increase in extreme poverty of 23 million people.

The disproportionate impacts of COVID-19 can be mitigated through targeted public policies. According to researchers from the International Monetary Fund,

Access to sick leave, unemployment benefits, and health benefits is useful for all in dealing with the effects of the pandemic but particularly so for poorer segments of society who lack a savings cushion and are thus living hand-to-mouth. ... Expanding social assistance systems, introducing new transfers, boosting public work programs ... and progressive tax measures—all are likely to be part of the policy mix to take the edge off the devastating distributional consequences from the pandemic.¹⁵

Related to both health and education is what Nobel laureate Amartya Sen has famously referred to as “capabilities.” By his reckoning, money is only one dimension—albeit an important one—of an individual’s “capability” to function in his or her economic environment. To Sen, what matters most is that people possess the necessary tools—including money, health, education, friends, and social connections—to provide them with realistic economic *choices*. As Sen has pointed out, there is considerable inequality of capabilities in the world, not just in the poor countries.

Inequality is also manifested in certain environmental outcomes. Proponents of “environmental justice,” point out that polluting industries and toxic waste disposal sites in the United States tend to be located disproportionately near poor and minority communities. This effect is even more pronounced in some developing countries. Oil and gas development in Nigeria by international corporations has resulted in thousands of oil spills that have impoverished local residents due to reduced agricultural production, lower fish harvests, and polluted drinking water.¹⁶ In many developed countries, there are stronger regulations on industrial pollution, but major impacts from oil and chemical spills and other emissions still occur, often affecting lower-income communities.

One also sees considerable inequality when confronting the issue of climate change. Numerous studies find that climate change will hit poor countries the hardest, exacerbating global inequality. Warmer temperatures and changing precipitation patterns in Africa and other developing regions could reduce the growing season and lower yields, leading to a 20% global increase in the number of people at risk of hunger by 2050.¹⁷ According to a 2015 analysis in the journal *Nature*, by the

end of the 21st century climate change will have a significantly higher proportionate impact on incomes in the world’s poorest.¹⁸ In addition to these specific effects, a critical fact about climate change, as well as other environmental damage, is that the rich can generally protect themselves much better than the poor can.

2.2 Measuring Inequality

While recognizing these various types of inequality, for the purposes of economic analysis we will focus primarily on inequality of income and wealth. The two most common metrics used to measure income inequality are:

1. Measure the income share (percent of all income) held by various groups ordered by income from poorest to richest, such as the bottom 20%, the middle 20%, the top 1%, etc.
2. Measure the overall distribution of income in a society, using mathematical and graphical techniques.

Income Distribution Data

Let’s consider the first approach. Table 1 presents the distribution of household income in the United States in 2018. The data are arranged in order of income, and the share of the total income “pie” that accrues to each twentieth percentile (or quintile) is in the second column. To understand what this table means, imagine dividing up U.S. households into five equal-sized groups, with the lowest-income households all in one group, the next-lowest in the next group, and so on. Note that the table also breaks out the richest 5% as a separate group.

Table 1. Household Income Distribution in the United States, 2018

Group of Households	Share of Income (Percent)	Annual Income Range
Bottom 20%	3.1	Below \$25,600
Second 20%	8.3	\$25,601 - \$50,000
Third 20%	14.1	\$50,001 - \$79,542
Fourth 20%	22.6	\$79,543 - \$130,000
Top 20%	52.9	Above \$130,000
Top 5%	23.1	Above \$248,728

Source: U.S. Census Bureau, *Selected Measures of Household Income Dispersion: 1967-2018*, Table A-4.

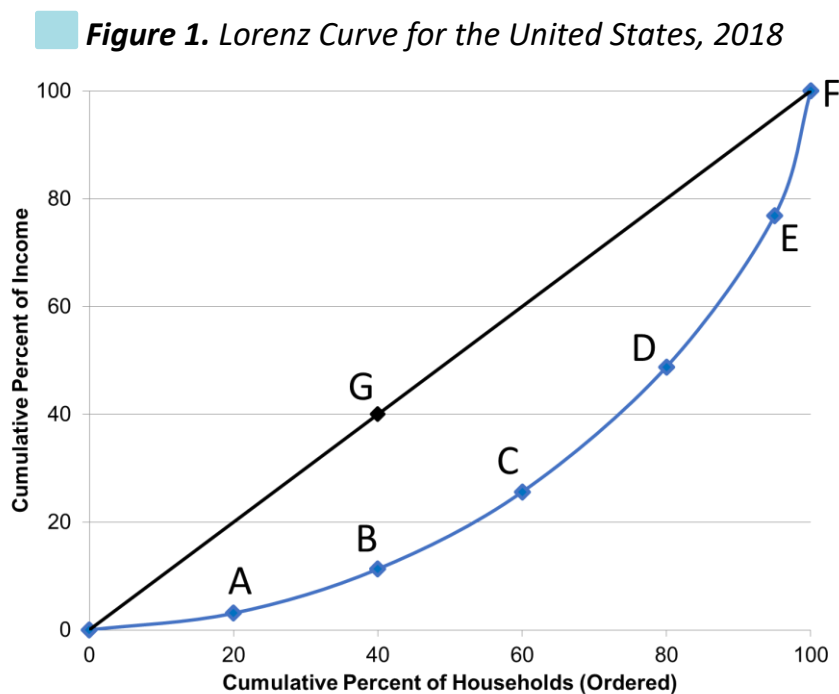
The lowest-income quintile, with household incomes below \$25,600, received only 3.1% of all the household income in the country. The richest quintile, those with incomes of \$130,000 or more, received 52.9% percent—in other words, more than half—of all the income received in the United States. The top 5% of households receive nearly as much income as the bottom 60%.

Using these data, we can now construct several measures of inequality based on the ratios of the income share of one group compared to another group. One common measure is the ratio of the income share of the richest fifth to that of the poorest fifth of the population; in this case, we obtain $52.9/3.1 = 17.1$ —that is, households in the richest quintile have over 17 times the income, on average, of households in the poorest quintile. The U.S. Census Bureau publishes various ratios

based on the incomes at different percentiles of the distribution, such as the 90th/10th ratio, the 95th/20th ratio, and the 80th/50th ratio. We can see how these ratios have changed over time to track changes in inequality. For example, the ratio of income share between the richest fifth to that of the poorest fifth in the United States has increased from only about 10 in 1980 to over 17 in 2018, indicating an increase in the spread between the richest and poorest fifth of the population.

The Lorenz Curve and Gini Coefficients

A simple ratio of income shares between two groups is somewhat arbitrary, focusing on some parts of the income distribution while ignoring others. A more comprehensive measure that reflects the entire income distribution involves creating a graph of the income distribution, referred to as a **Lorenz curve**—named after Max Lorenz, the statistician who first developed the technique. A Lorenz curve for household income in the United States is shown in Figure 1. In this graph, the horizontal axis represents the *cumulative* percent of households, lined up from left to right in order of increasing income. The vertical axis measures the *cumulative* percentage of all income received by different groups of households (the lowest 20%, the lowest 40%, etc.).



Source: U.S. Census Bureau, Selected Measures of Household Income Dispersion: 1967-2018, Table A-4.

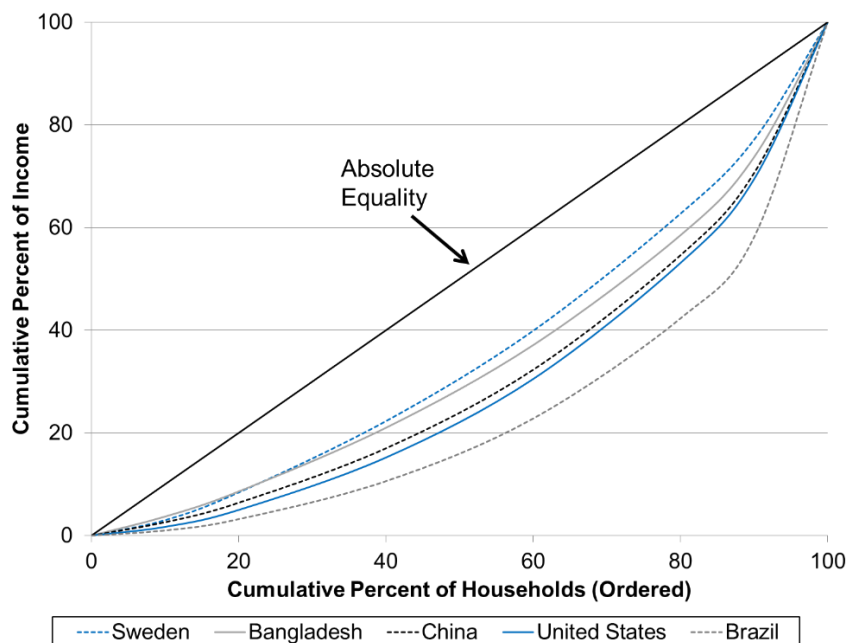
We use the data in Table 1 to draw the Lorenz curve in Figure 1. Point A represents the fact that the poorest 20% of households received 3.1% of all income. To obtain Point B, we need to calculate the cumulative percent of income received by the bottom 40% of households. So we add the income received by the bottom 20% to the income received by the next 20%. Thus the cumulative percent of income received by the bottom 40% is 3.1 + 8.3 = 11.4% of total income. For point C, we need to calculate the cumulative percent of income received by the bottom 60%

of households, which is $3.1 + 8.3 + 14.1 = 25.5\%$ of total income. Similarly, point D shows that the income share of the bottom 80% is 48% of all income. Finally, point E shows that the bottom 95% received 76.9% of all income (everyone except the top 5%). The Lorenz curve must start at the origin, at the lower left corner of the graph (because 0% of households have 0% of the total income) and must end at point F in the upper right corner (because 100% of households must have 100% of the total income).

The Lorenz curve provides information about the degree of income inequality in a country. Note that the 45-degree line in Figure 1 represents a situation of absolute equality. If every household had the same exact income, then, for example, the “bottom” 40% of households would receive 40% of all income. This is shown by point G in Figure 1. Imagine the other extreme—a situation in which one household received all the income in a country. In this case, the Lorenz curve would be a flat line along the horizontal axis at a value of zero until the very end, where it would suddenly shoot up to 100 percent of income (at point F).

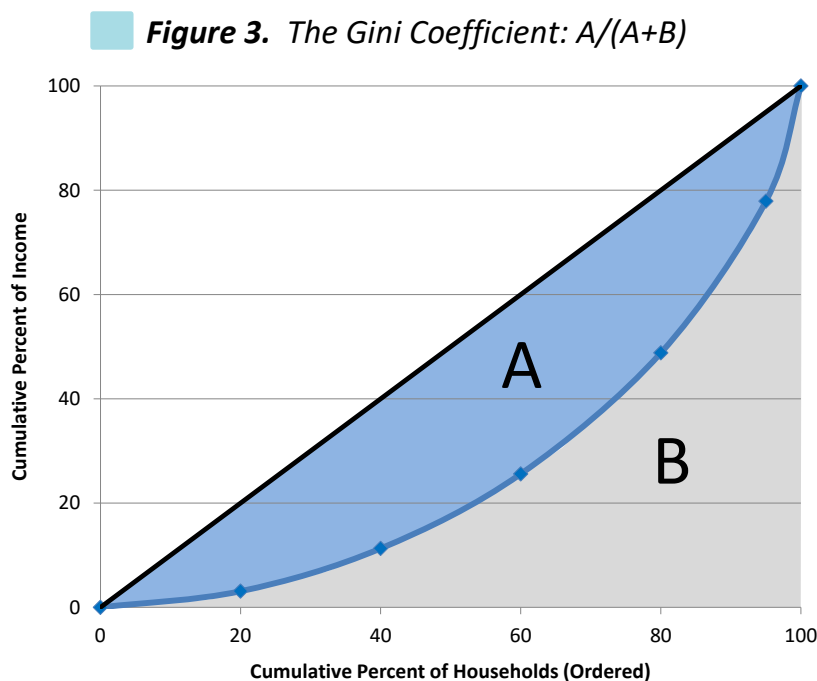
Of course these two extremes do not occur in reality, but they indicate that the closer a country’s Lorenz curve is to the 45-degree line, the more equal its income distribution. This is illustrated in Figure 2, which shows the Lorenz curve for five countries: Sweden, Bangladesh, China, the United States, and Brazil. Income is distributed relatively equally in Sweden; its Lorenz curve is closest to the 45-degree line of absolute equality. Brazil has one of the most unequal income distributions—we see its Lorenz curve bows far from the line of equality. Income inequality is similar in China and the United States. A low degree of inequality isn’t necessarily a positive reflection on a country; inequality is relatively low in Bangladesh because the majority of people are quite poor.

Figure 2. Lorenz Curves for Sweden, Bangladesh, China, the United States, and Brazil



Source: World Bank, World Development Indicators database. Year of data varies from 2015 to 2018.

The more the Lorenz curve bows away from the line of absolute equality, the greater is the extent of inequality in the income distribution. Based on this observation, statistician Corrado Gini introduced a numerical measure of inequality known as the **Gini ratio (or “Gini coefficient”)**, which is defined as the ratio of the area between the Lorenz curve and the diagonal line of equality to the total area under the diagonal line.



Referring to Areas A and B in Figure 3, the Gini ratio is $A/(A+B)$. Clearly, the Gini ratio can vary from 0 for absolute equality (since in such a case Area A would equal zero as the Lorenz curve overlaps the line of absolute equality) to 1 for absolute inequality (where Area B would equal zero). According to U.S. Census Bureau calculations, the Gini ratio for U.S. household income in 2018 was 0.486. We will present international comparisons of inequality, along with data trends, in Section 4.

Note that the definition of income used for the data in Table 1 is pre-tax income excluding the value of noncash government benefits such as food assistance and Medicare, and also excluding the value of employer-provided benefits such as health care. How might the Gini coefficient change if we looked at disposable income (income after people pay taxes and receive government cash transfers such as welfare payments)? It turns out that the distribution of income becomes somewhat less unequal when we make these adjustments because higher-income people pay more in taxes, while poor people may qualify for noncash programs such as food assistance, or for subsidized housing and medical care.

Income Inequality and Well-Being

How much importance should we place on income inequality and the Gini index? Many important goods and services are, after all, obtained without the use of cash income. Many families produce

at least some services (such as child care and cooking) for themselves. In addition, many of the things that we enjoy—such as pleasant parks, safe roads, or clean air—add to our well-being without requiring payments (although some of these things are financed through taxes). If we were to look at the distribution of *well-being* rather than just the distribution of income, we would need to take account of these other sources of important goods and services. Some of these goods may contribute to lessening inequality—for example, everyone, rich or poor, can enjoy a public park or use a public library. Evidence suggests, however, that at least in some cases the distribution of such non-purchased goods may accentuate, rather than lessen, inequality. For example, as noted earlier, proponents of “environmental justice” point out that polluting industries and toxic waste disposal sites tend to be located disproportionately near poor and minority communities.

Another interesting issue is the relationship between income and leisure time. Data for the United States indicate that higher education, and thus higher income, is associated with less leisure time. But this does not mean that poor people simply enjoy lives of greater leisure and well-being. Instead, unemployment rates are much higher for people with less education, suggesting that some leisure time is involuntary. Meanwhile, job satisfaction increases with education, which also contributes to well-being.¹⁹ As we’ve seen before, well-being is multi-dimensional and we should be wary about drawing conclusions about well-being based on any single variable.

3. INEQUALITY TRENDS IN THE UNITED STATES

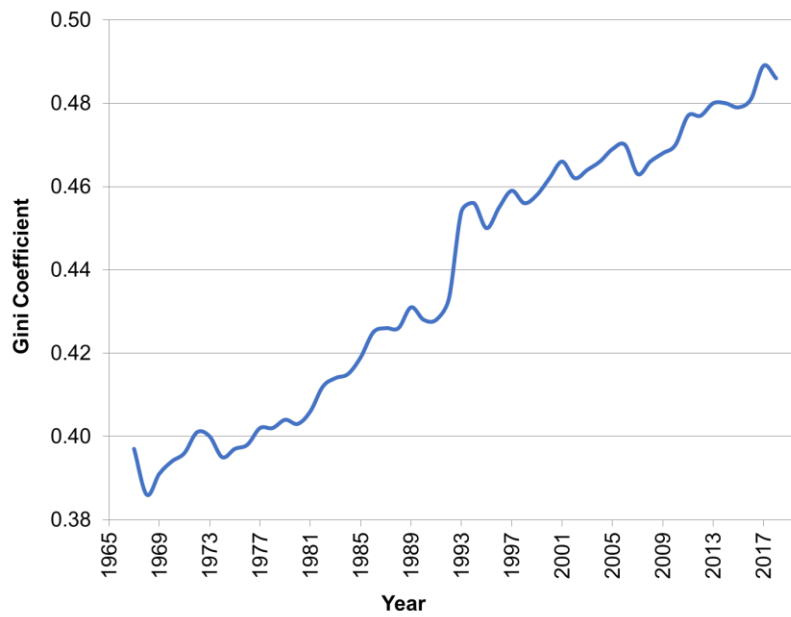
We can now use inequality data to track how inequality has changed over time. In this section, we focus on economic inequality in the United States. We will explore trends in income inequality, wealth inequality, and economic mobility, and provide some additional perspectives on inequalities in labor market outcomes based on race, gender, age, and education. International data on income and wealth inequality are presented in Section 4.

3.1 Income Inequality

No one disputes that income inequality in the United States has increased in recent decades. We can see this in Figure 4, which shows the Gini coefficient in the U.S. from 1967 to 2018. The Gini coefficient reached a record low of 0.386 in 1968. After that, the Gini coefficient increased in 40 of the next 50 years.

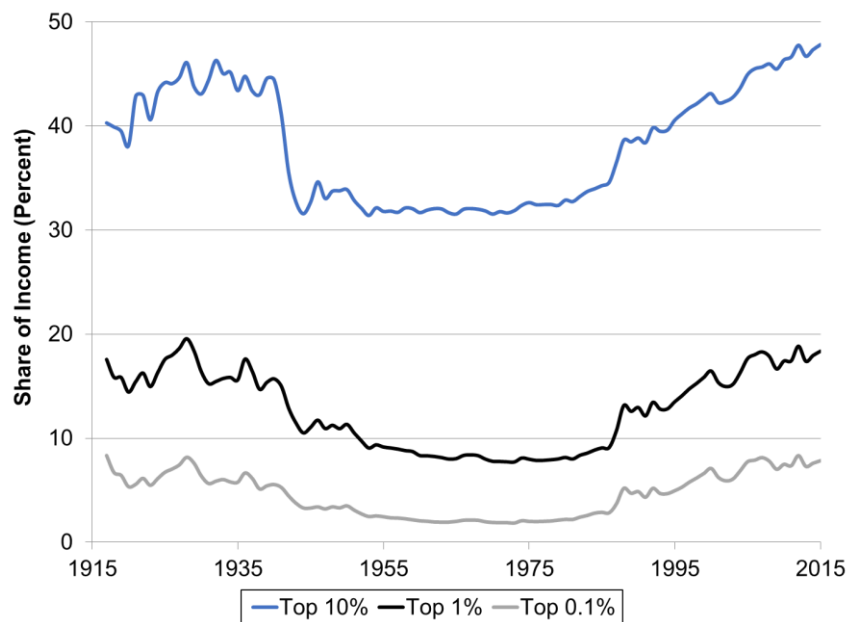
While comparable data are not available for the years prior to 1967, researchers have estimated longer trends in income inequality by focusing on the share of total income going to the top income groups. Figure 5 shows how the income share of three high-income groups in the United States—the top 10%, the top 1%, and the top 0.1%—has changed since the early 20th century. After the Great Depression, the share of income going to the top income groups generally declined, suggesting that income inequality was decreasing. The share of income going to the top 10% remained low at around 32% from 1950 until the early 1970s. The share of income going to the top 0.1% reached a low of less than 2% in the early 1970s. Since the early 1970s, the income shares going to these top groups have increased, generally surpassing the high levels that occurred prior to the Great Depression. We will consider some the explanations for the recent trend toward higher inequality in Section 5.

Figure 4. Gini Coefficient in the United States, 1967-2018



Source: U.S. Census Bureau, Selected Measures of Household Income Dispersion: 1967-2018, Table A-4.

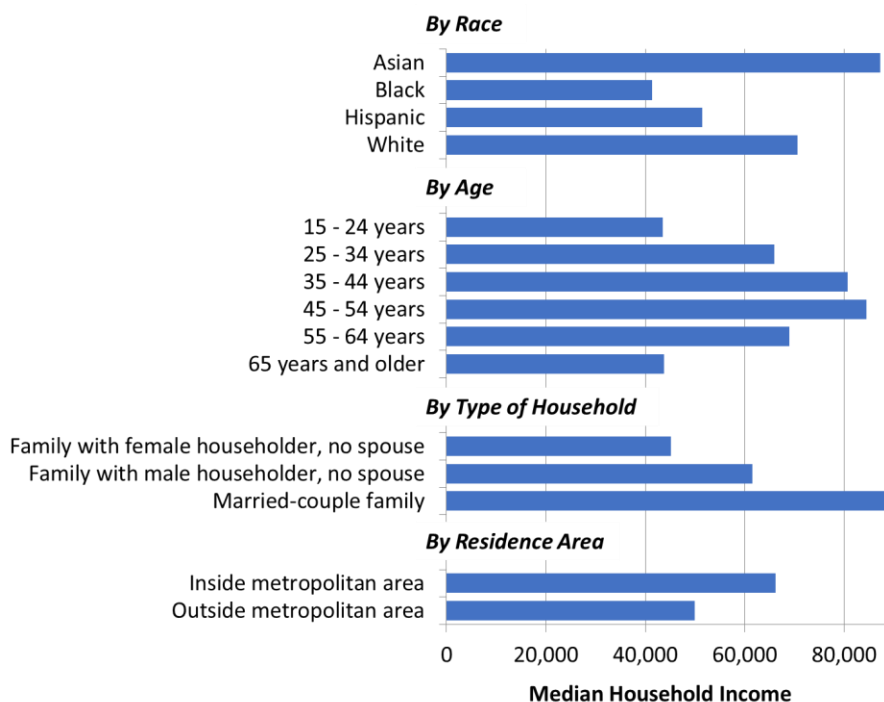
Figure 5. Income Shares of Top-Income Groups, United States, 1917-2016



Source: Saez, 2016. Note: Data exclude capital gains.

Income inequality is also related to race, age, and other demographic characteristics, as shown in Figure 6. Asian households have the highest median annual income, about \$87,000, while black households have the lowest at only \$41,000. Median income also changes with age, increasing up to middle-age, and then declining as people retire. Married couples, with the potential for two adult workers, have higher incomes than households with just one adult male or female. Further, whether a family with only one adult is headed by a male or a female can make an income difference of nearly 40%. Finally, households in metropolitan areas have median incomes about 33% higher than those outside of metropolitan areas.

Figure 6. Median Household Income in the U.S. by Select Characteristics, 2018



Source: U.S. Census Bureau, *Income Summary Measures by Selected Characteristics: 2017 and 2018*, Table A-1.

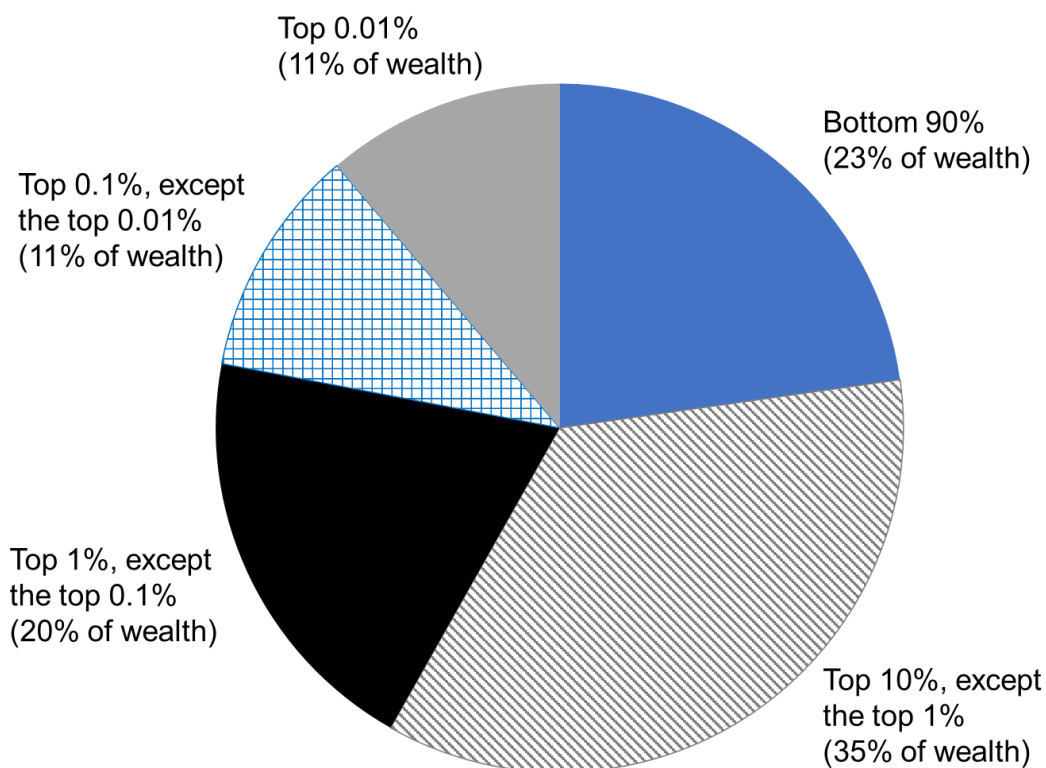
3.2 Wealth Inequality

Gini coefficients may also be calculated for the distribution of wealth rather than income. This distribution, which depends on what people own in assets, tends to be much more unequal than income distribution. Many lower-income people have almost no net wealth, and even people with middle-class income levels often have only a relatively small amount of wealth. It is even possible to have *negative* net wealth. This happens when the value of a person’s debts (e.g., for a car, house, or credit cards) is higher than the value of her assets. For people in the middle class, the equity that they have in their house is often their most significant asset. By contrast, those who do own substantial wealth are generally in a position to put much of it into assets that increase in value over time or yield a flow of income and dividends—which can in turn be invested in the acquisition of still more assets.

The distribution of wealth is, however, less frequently and less systematically recorded than the distribution of income—in part because wealth can be hard to measure. Much wealth is held in the form of unrealized **capital gains**. A household realizes (turns into actual dollars) capital gains if it sells an appreciated asset, such as shares in a company, land, or antiques, for more than the price at which it purchased the asset. An asset can appreciate in value for a long time before it is actually sold. No one, however, will know exactly how much such an asset has really gained or lost in value until the owner actually *does* sell it, thus “realizing” the capital gain. Another reason that it is harder to get information on wealth is that although governments normally require people to report their annual income from wages and many investments for tax purposes, most governments do not require regular and comprehensive reporting of asset holdings. Finally, wealth consists not only of financial assets but also commodities, paintings, real estate, and the like. Such disparate forms of wealth make it difficult to obtain reliable estimates of aggregate wealth statistics.

These caveats notwithstanding, reasonable estimates of the U.S. Gini coefficient for wealth have been made. They are in the neighborhood of 0.8, significantly higher than the income Gini coefficient of 0.49.²⁰ While the top 10% of U.S. households by income receive about 30% of all income, the top 10% by wealth own 77% of all wealth. (See Figure 7.) The top 1% (those with more than \$4 million in assets) own 42% of all wealth, much more than the bottom 90% combined. And the top 0.01% (about 16,000 families with at least \$111 million in assets each) own 11% of U.S. wealth.²¹ For an interesting study of Americans’ perceptions of current wealth inequality, see Box 2.

Figure 7. *The Distribution of Wealth in the United States, 2012*



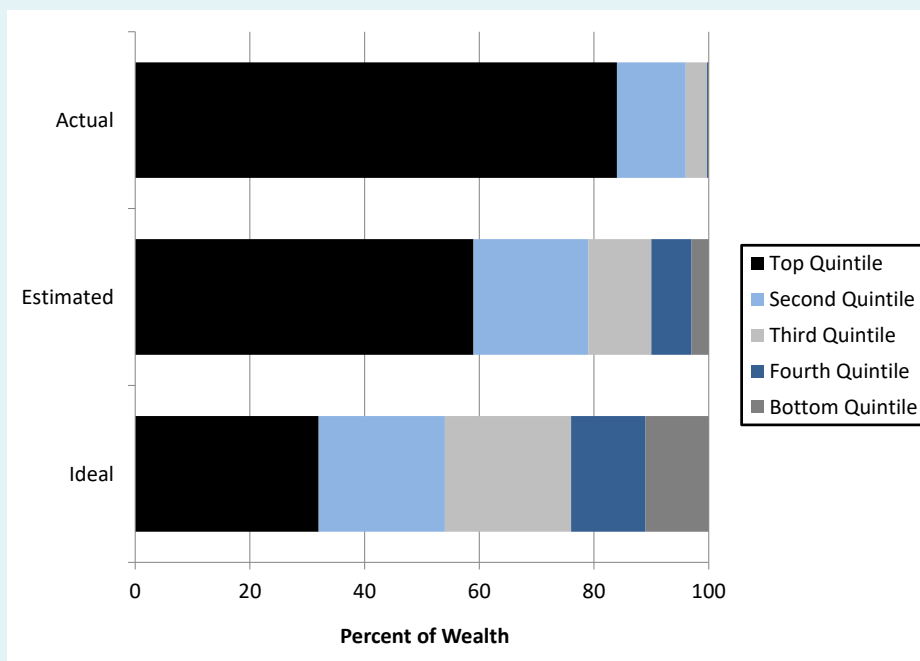
Source: Saez and Zucman, 2016.

BOX 2: WEALTH INEQUALITY IN THE UNITED STATES

Political debates about inequality are often based on perceptions rather than facts. A 2011 study surveyed people regarding their perceptions of wealth inequality in the U.S.²² Respondents were asked to estimate what percentage of total wealth was actually owned by each wealth quintile. They were also asked to construct their ideal distribution of wealth, again assigning a percentage of total wealth to each quintile.

The results are presented in Figure 8, along with the actual distribution of wealth in the U.S. We see, for example, that the top quintile actually owns 84% of all wealth in the U.S.; however, respondents estimated that the top quintile only owned 59% of all wealth.²³ But most respondents thought that even this estimated concentration of wealth was excessive. On average, their ideal wealth distribution allocated only 32% of all wealth to the top quintile.

Figure 8. Actual, Estimated, and Ideal Distribution of Wealth in the United States



Source: Norton and Ariely, 2011.

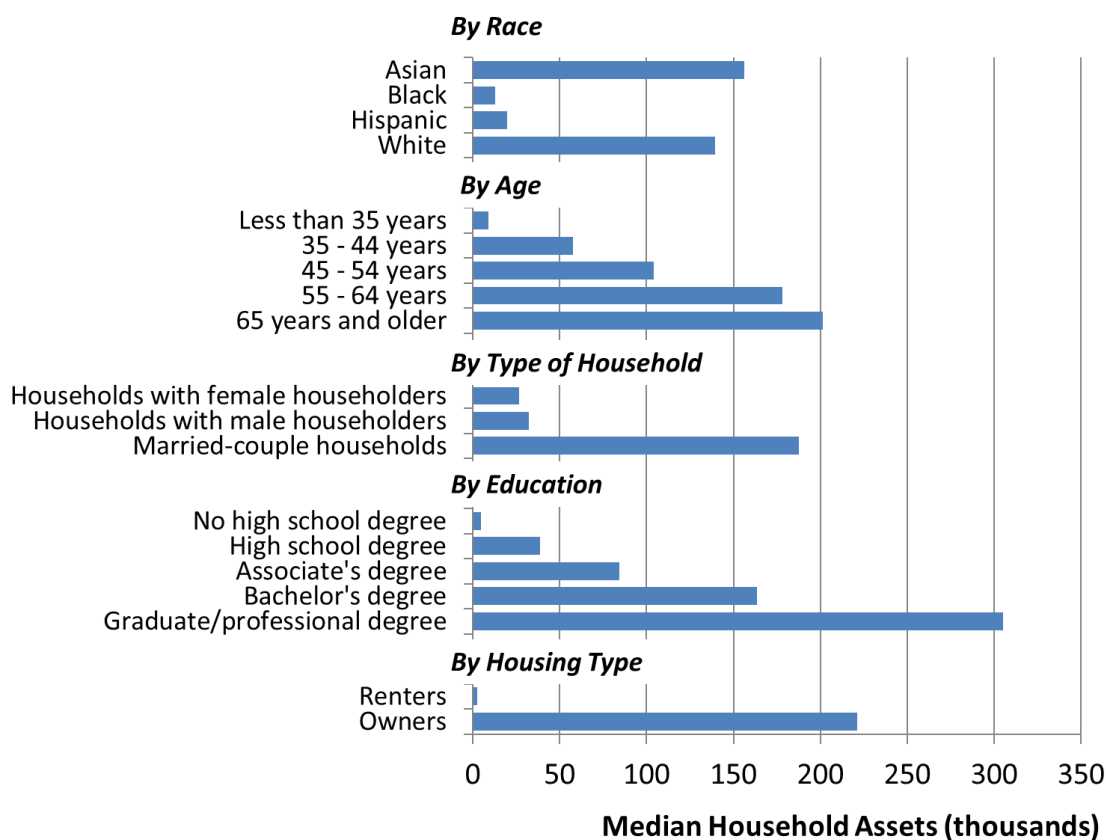
Looking at the other end of the wealth spectrum, the bottom quintile actually owns only 0.1% of wealth in the U.S. Respondents estimated that the bottom quintile owns about 3% of wealth. According to their ideal distribution, the bottom quintile should own about 11% of all wealth. The results clearly illustrate the difference between reality, perceptions, and subjective preferences. The study authors draw two primary messages from the results:

First, a large nationally representative sample of Americans seems to prefer to live in a country more like Sweden than like the United States. Americans also construct

ideal distributions that are far more equal than they estimated the United States to be—estimates which themselves were far more equal than the actual level of inequality. Second, there was much more consensus than disagreement across groups from different sides of the political spectrum about this desire for a more equal distribution of wealth, suggesting that Americans may possess a commonly held “normative” standard for the distribution of wealth despite the many disagreements about policies that affect that distribution, such as taxation and welfare.²⁴

Just as income inequality has been increasing in recent decades, so has wealth inequality. A plot of the wealth shares owned by the top groups in the U.S. over time looks much like the income shares in Figure 5. The share of national wealth owned by the top 1% was over 50% prior to the Great Depression, declined to less than 25% by the late 1970s, but then steadily increased to around 45% today.²⁵

Figure 9. Median Value of Household Assets in the United States by Select Characteristics, 2015



Source: U.S. Census Bureau, *Wealth, Asset Ownership, and Debt of Households Detailed Tables: 2015*

Economic inequalities based on race, age, and other demographic factors are also more pronounced for household wealth than for household income. Figure 9 presents data on the median value of household assets for different types of households.²⁶ In some cases, we can see how inequalities arising due to differences in income are magnified when it comes to wealth. While white

households' incomes are 71% higher than the incomes of black households, the assets of white households are about 7 times higher than those of black households. Hispanic households also have little in assets, only about \$20,000. The median value of household assets tends to rise with age. So while older households (aged 65 and older) have relatively low income as seen in Figure 6, they have comparatively high assets. While married couples have incomes about twice as high as households with just one adult, their assets about 6 times larger. We also see that education has a significant impact on household assets. For example, those with a college degree have over four times as much household wealth as those with only a high school diploma. Finally, those owning their own homes (including those still paying a mortgage) have 80 times the assets of renters. This demonstrates the importance of real estate equity in building household wealth.

Contemplating such vast wealth inequality brings us back to the question of opportunity. Do those with little or even negative wealth have the opportunity to achieve an adequate level of well-being? In addition, great wealth often confers upon its owners both economic and political power. When the ownership of wealth is highly uneven, the ability to direct the operations of businesses and to influence government policy through campaign contributions and the like may become concentrated in the hands of relatively few. They may then use this power to maintain or exacerbate existing inequalities. We return to this point later in the module.

3.3 Economic Mobility

Our discussion above suggests that some inequality is to be expected in any society, given that people's incomes and assets tend to increase as they become older and more established in their careers. At any point in time, we are likely to have younger people with relatively low incomes and few assets, middle-aged people with higher incomes and more assets, and retirees who tend to have relatively low incomes but relatively high assets. (See Figures 6 and 9.) Thus we have people moving from lower income groups to higher income groups, and vice versa. This possibility for people or households to change their economic status, for better or worse, is called **economic mobility**. For a given level of economic inequality, we may be more tolerant if economic mobility is higher because it implies that people have the opportunity to improve their economic condition.

A common way to measure economic mobility is to track the frequency with which individuals or households move into different income groups, especially in relation to the group in which they were raised. For example, a 2013 U.S. study looks at the income quintiles of people in their late 30s related to their "birth quintile"—the quintile where their parents were, at the same age.²⁷ For people raised in families from the bottom quintile, 44% are still in the bottom quintile as adults, 22% rise into the second quintile, and about 6% rise all the way to the top quintile. Meanwhile, people raised in families from the top quintile are 47% likely to also be in the top quintile as adults, with about 25% in the fourth quintile and 7% falling all the way to the bottom quintile. So while some economic mobility exists, one's background is clearly an important determinant of one's adult income. A 2015 study summarized the situation:

[C]hildren raised in low-income families will probably have very low incomes as adults, while children raised in high-income families can anticipate very high incomes as adults. The differences are extreme: The expected income of children raised in well-off families (90th percentile) is about 200 percent larger than the

expected income of children raised in poor families (10th percentile) and about 75% larger than that of children raised in middle-class families (50th percentile).²⁸

A 2016 paper that studied economic mobility by looking at how one's income changed throughout a working career found that earnings mobility has decreased as inequality has increased since the 1980s.²⁹ A particularly striking finding was a dramatic decline in upward mobility for those starting their careers in the middle class, even for those with a college degree.

Another aspect of economic mobility is whether successive generations are, on average, better off than their parents. With consistent economic growth, each generation can look forward to higher average incomes. However, recent research suggests that this is no longer the case in the United States. (See Box 3.)

BOX 3: THE FADING AMERICAN DREAM

One aspect of the “American Dream” is that each successive generation hopes it will be better off than the previous generation. This continual increase in living standards is referred to as “absolute income mobility.” While this was often taken for granted in the past, is this part of the American Dream still alive?

According to a 2017 paper, the answer seems to be mostly “no.”³⁰ Looking at data on children born in the U.S. from 1940 to 1984, and their parents, the researchers were able to determine the percentage of children that ended up earning more than their parents (after adjusting for inflation). For children born in 1940, over 90% of them ended up earning more than their parents. But for children born in the 1980s, this percentage had dropped to 50%.

Two explanations for the decline in absolute income mobility are proposed: lower GDP growth rates and greater income inequality. Of these two explanations, the paper concludes that:

most of the decline in absolute mobility is driven by the more unequal distribution of economic growth in recent decades, rather than by the slowdown in GDP growth rates. In this sense, the rise in inequality and the decline in absolute mobility are closely linked. Growth is an important driver of absolute mobility, but high levels of absolute mobility require broad-based growth across the income distribution. With the current distribution of income, higher GDP growth rates alone are insufficient to restore absolute mobility to the levels experienced by children in the 1940s and 1950s. If one wants to revive the “American dream” of high rates of absolute mobility, then one must have an interest in growth that is spread more broadly across the income distribution.³¹

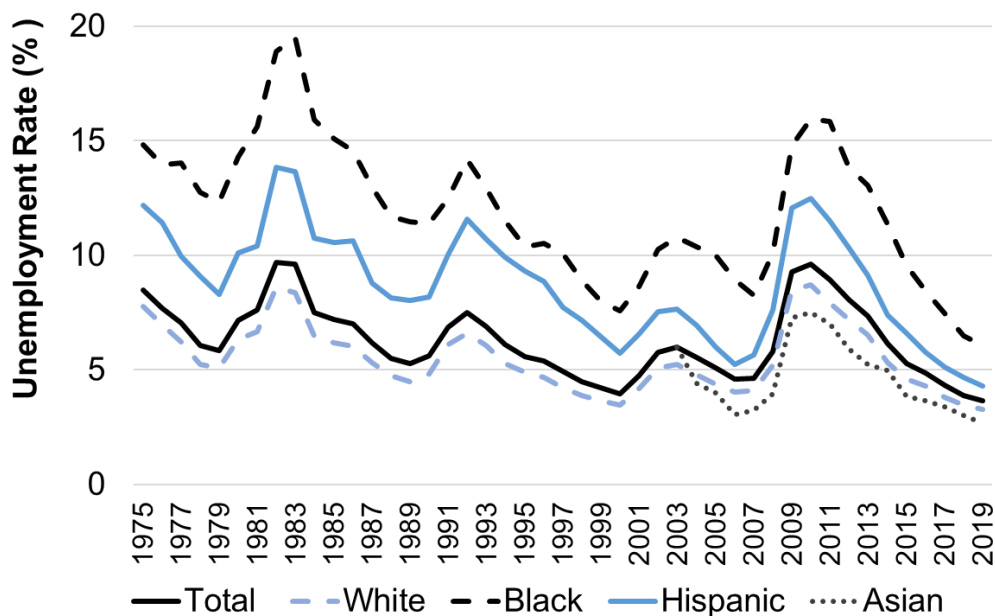
3.4 Inequality and Labor Market Outcomes

One aspect that is particularly important in understanding trends in inequality is the differences in labor market outcomes for individuals from different demographic groups. In the United States, it is generally true that opportunities to have good paid work, with good compensation, are greater for men than for women; for younger people than for older ones; for the more educated than for the less educated; and for white, native-born Americans than for immigrants or people of color. We will now explore these realities by considering the role of **labor market discrimination**, which exists when, among similarly qualified people, some are treated disadvantageously in employment on the basis of race, sex, age, sexual preference, physical appearance, or disability. Workers who belong to disfavored groups may be paid less for the same work, may be denied promotions, or may simply be excluded from higher-paying and higher-status occupations.

Inequality based on Race and Ethnicity

Analyses of government data find large disparities in economic outcomes based on race and ethnicity. For example, blacks on average are at least twice as likely as whites to be poor or to be unemployed. As shown in Figure 10, unemployment rates for blacks and Hispanics have always been significantly higher than those for whites and Asians. In fact, black unemployment has been at least twice as high as white unemployment in 47 of the past 54 years for which data are available. In 2019, the unemployment rate for whites was 3.3% compared to 6.1% among blacks. Among Hispanics, unemployment stood at 4.7%; and just 2.7% of Asians were unemployed.

Figure 10. Unemployment Rate by Race, 1975–2019

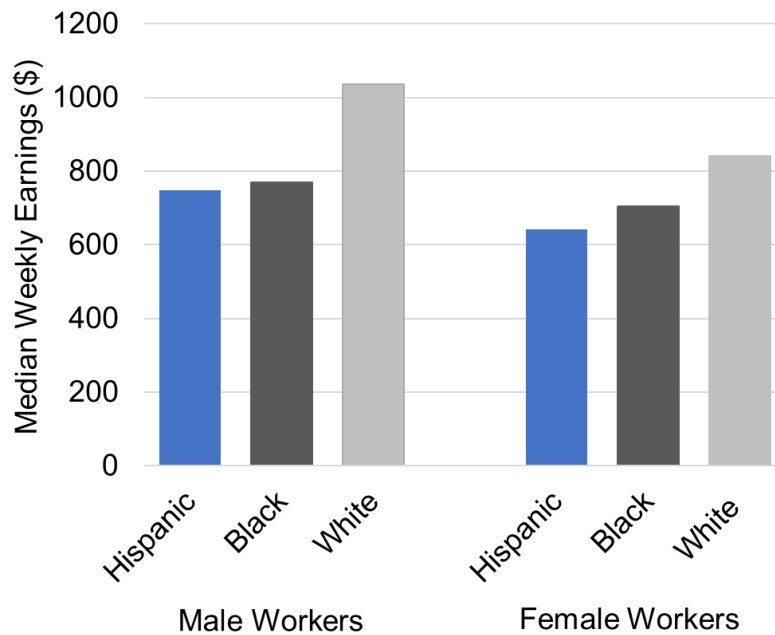


Source: U.S. Bureau of Labor Statistics, 2020.

The higher unemployment among minority groups, is at least partly due to discrimination in the labor market. Researchers studying race-based discrimination have used experiments that explore, for example, how employers respond to job applicants with “minority-sounding” names. A 2017 paper that reviewed the results of 28 such studies found that applicants with white names like Emily and Greg receive, on average, 36% more callbacks than applicants with names like Lakisha and Jamal, and 24% more callbacks than applicants that appear to be Latinos.³² The degree of discrimination against black applicants has not declined since 1989, but has declined slightly against Latinos.

Wide disparities in wage levels are also evident across the different racial and ethnic groups. Figure 11 below compares the median weekly earnings in the United States of full-time, year-round workers in various groups. We see that the median earnings of black male workers were only 74% of the earnings of their white male counterparts, and the median earnings of Hispanic male workers were only 72% of white male earnings. Disparities among female workers of different races also exist, although the differences are somewhat less pronounced. White female workers earn just 81% of the earnings of their white male counterparts. Note that the gap in wages based on race is larger than the gap based on gender. And while some progress has been made in reducing gender wage gaps, wage differences based on race may actually be increasing.

Figure 11. Median Weekly Earnings in Current Dollars, Select Groups of U.S. Workers, Age 25 and Over, 2019



Source: U.S. Bureau of Labor Statistics, 2020.

Economists have used statistical studies to estimate how much of the difference in wages between workers of different races is due to various factors. A 2013 article finds that differences in formal education are important in explaining the gap, but at least one-third of the gap is due to discrimination.³³ The analysis also finds that black job seekers tend to be offered, and to accept, lower wages than white workers. A 2016 analysis finds that the gap in wages between black and white

workers in the U.S. narrowed in the 1990s due to low unemployment and minimum wage increases, but has increased since 2000 as black workers were more negatively impacted by the Great Recession.³⁴

Disadvantages in jobs and wages translate, of course, to disadvantages in income and wealth. Although the poverty rate for blacks has come down significantly since the mid-1970s, as of 2014 blacks were still more than twice as likely as whites to be living in poverty (26% compared with 10%). Also, 2016 Census data shows that women in all racial and ethnic groups were more likely than white, non-Hispanic men to be in poverty. Specifically, 21.4% of black women, 22.8% of Native American women, 18.7% of Latino women and 10.7% of Asian women lived in poverty. As a comparison, 9.7% of white women, and 7% of white men, were described as living in poverty.

Gender-Based Inequality

The **gender wage gap**—the difference in average wages between men and women—has declined in the United States in recent decades.³⁵ In 1980 women’s average wages were 64% of men’s wages. By 2019 the gap had been reduced by about half, but women still earned only about 82% of men’s wages.

Historically, the gender wage gap has resulted from a number of factors, including:

- Simple discrimination caused women to be passed over, in favor of men, for promotion.
- Women have often received less compensation than men in identical jobs.
- Young women sometimes deferred entrance to the labor force while they had young children, or else worked shorter hours in the early part of their careers; hence they had less seniority. When family members were ill, women were more likely to take time off work to care for them, giving an impression of lower job attachment.
- **Occupational segregation**—the tendency of men and women to be found in different kinds of jobs—is also important in explaining earnings differences by gender. For example, in the United States, jobs like child-care worker, registered nurse, and preschool teacher are held overwhelmingly by women. Meanwhile, men dominate in occupations such as construction trades, metal working, truck driving, and engineering. Occupational segregation could be a result of differences in preferences, or it could also reflect discrimination. For example, existing stereotypes may lead more women to become nurses while men receive more encouragement in their desire to become doctors. The higher wages in jobs that are typically done by men could explain some of the difference in earnings of men and women.

According to a comprehensive 2016 analysis, about half of the difference between men’s and women’s pay in the United States is associated with differences in industry and occupation choice.³⁶ The study also concludes that workforce interruptions, such as taking time off to care for family members, also help explain why women earn less than men, on average. However, even after accounting for gender differences in education, experience, occupational choice, and other variables, about 40% of the gender pay gap remains unexplained. At least part of this unexplained difference can be attributed to discrimination.

Compared to other industrialized nations, the United States has a relatively large gender pay gap.³⁷ While men earn more than women in every country, in Norway, Belgium, and New Zealand women earn 93% or more of what men earn. According to a 2016 report, the U.S. ranked 66th in the world in gender wage equality.³⁸ Countries with a larger gender wage gap than the U.S. include Canada, Germany, and France.

Gender-based inequality in the U.S. includes the fact that women are less likely than men to reach the highest-paying leadership and executive positions. According to a U.N. report, only about 26.1% of high government positions in the U.S. are held by women, including just 19.3% of the seats in U.S. Congress. And, according to Pew Research Center, about 5.2% of the CEOs in Fortune 500 companies were women (in 2015) and about 17% of the positions on company boards were held by women (in 2013).³⁹

Within this overall picture, there are some trends that are narrowing the wage gap between men and women, in part through some encouraging trends for women, but also through trends that have been painful for many men. As reported in a Pew research paper, the median annual earnings of full-time, year-round working women increased from \$30,402 in 1980 to \$40,000 in 2015, a gain of 32%. At the same time full-time, year-round working men experienced a 3% loss in earnings as their median annual earnings fell from \$51,684 in 1980 to \$50,000 in 2015.⁴⁰

One factor that explains this change is the evolution of the overall structure of the U.S. economy, where the largest portion of the jobs that have been disappearing at an ever faster rate in the last 30 years are those that are male-gendered—especially the traditionally middle-class, blue-collar jobs. For example, construction and warehouse jobs, that are typically dominated by men without a college degree, are threatened by automation. Women, on the other hand, have benefitted disproportionately from the evolution of the economy to what may now be described as a service-oriented and knowledge-based economy. From 1990 to 2015, employment growth in the U.S. doubled in the educational services and health care and social assistance sectors, and was almost as strong in professional and business services, increasing by 81% in the latter. Meanwhile overall non-farm employment increased just 30%.

None of this indicates that the jobs picture for women is rosy. Immigrant women in particular are shunted into home health care and personal care positions, as demand from the aging baby boomers' cohort is expected to require 1.2 million more workers in these roles in the decade from 2016- 2026.⁴¹ Median annual wages for such positions range from \$21,920-\$22,600, for work that often requires very long hours. Economist Eduardo Porter notes that “despite their critical importance to the well-being of tens of millions of aging Americans, one-fourth of these [home health] aides live in poverty.”⁴² Other traditionally female-gendered care work professions are better paid: physical therapists assistants typically earn \$56,610 annually, while physician assistants and nurse practitioners—roles that are increasingly attracting males—are likely to earn a little over \$100,000.⁴³

An Aging Workforce?

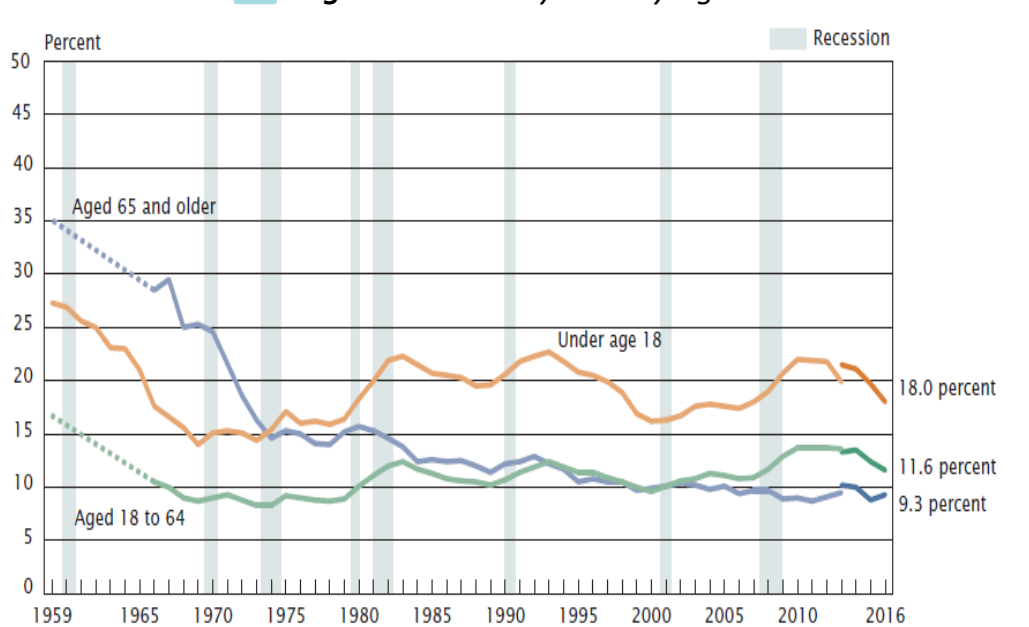
A 2016 study by economists at the University of California at Irvine and Tulane University found strong evidence of age discrimination in hiring, particularly for older women. The researchers sent

out 40,000 dummy job applications that included signals on the job-seekers' ages, and then monitored the response rates. They measured callback rates for various occupations; workers age 49-51 applying for administrative positions had a callback rate 29% lower than younger workers, and it was 47% lower for workers over age 64.⁴⁴

People who had developed valuable skills in one job may find that their labor commands a lower price in other types of work. Many displaced workers, particularly older ones, may never find the kind of pay and satisfaction that they had at their earlier occupations. According to a 2013 survey by AARP, older job seekers need much more time to find a job than younger workers: 36 weeks in 2015, compared with 26 weeks for younger workers. Older displaced workers are more likely than younger ones to stay unemployed for long periods or to exit the labor force.⁴⁵

The figures on this topic are instructive on an important point regarding how to understand the data we encounter in the media. In August 2016, the national unemployment rate was 4.9% and the jobless rate for workers over 55 was just 3.5%. That looks good. However, according to the Schwartz Center for Economic Policy Analysis, the jobless rate for workers over 55 rose to 8.7% when the figure included workers holding part-time jobs who would rather be working full time as well as unemployed workers who had recently given up looking for work. Further, if you add jobless workers who gave up looking for work after more than four weeks, the 55-plus unemployment rate increased to 12%.

Figure 12. Poverty Rate by Age



Source: U.S. Census Bureau, Current Population Survey, 1960 to 2017, Annual Social and Economic Supplements

Note: The data for 2013 and beyond reflect the implementation of the redesigned income questions. The data points are placed at midpoints of respective years. Data for people aged 18 to 64 and aged 65 and older are not available from 1960 to 1965.

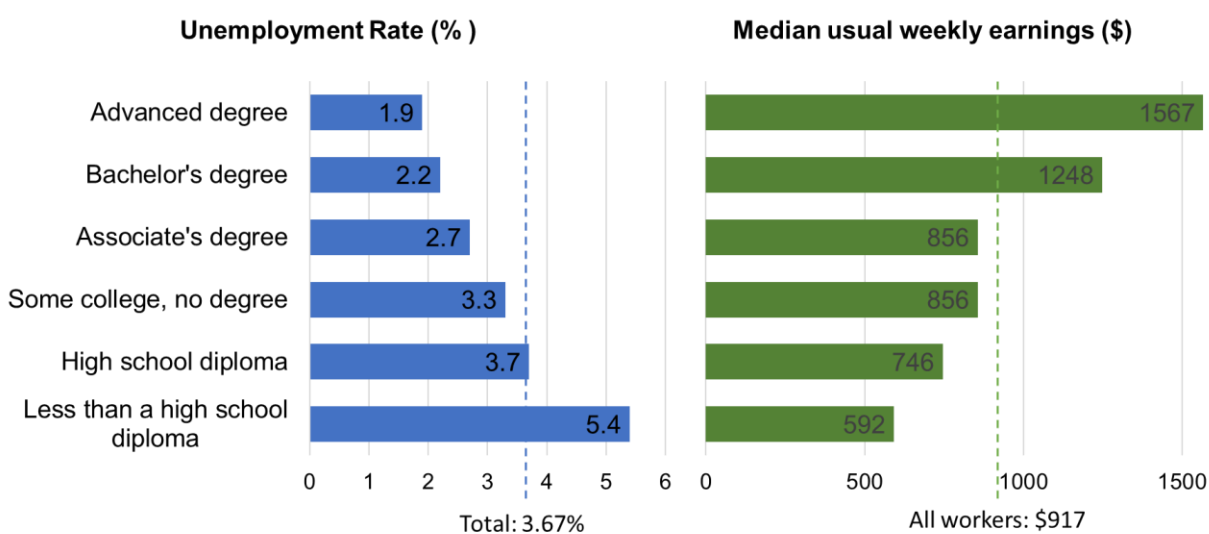
Despite the difficulty older Americans have in finding jobs, poverty among the old is less widespread than it was in the U.S. in the 1960s. (See Figure 12). This decline in poverty among older people is largely attributed to government programs such as Social Security, Supplemental Security Income benefits, Medicare and Medicaid. Social Security is credited for lifting about 17.1 million seniors out of poverty.⁴⁶ It is important to note, however, that this poverty measure does not consider health care costs. The high and rising medical bills for the elderly can greatly reduce the income available to meet other basic needs. The U.S. Census Bureau also provides an alternative measure of poverty, known as the Supplemental Poverty Measure (SPM), that takes into consideration financial resources such as taxes, value of in-kind benefits (food stamps), and out of pocket medical expenses. In 2016, the SPM for Americans aged 65 and older showed a poverty rate of 14.5%, which is much higher than the official poverty rate of 9.3%.⁴⁷

The Role of Education

There is a significant connection between education, employment, and wages. Figure 13 below shows huge disparities in unemployment rates and median weekly earnings of full-time wage-workers based on their educational attainment. In 2019 those with an advanced degree experienced the lowest unemployment rates, followed by those with bachelor’s degree. The unemployment rate for those without high school degrees was greater than twice the unemployment rate for those with an Associate degree, and almost three times the unemployment rate of those with a Bachelors degree.

In terms of wage differences, we see that in 2019 the median weekly earnings for workers with advanced degrees was more than 2.5 times greater than that of workers with less than high school diploma. In fact, the median earnings for those without a high school diplomas were 26% lower than those with high school diplomas and 110% lower than that for college graduates.

Figure 13. Unemployment and Earnings by Educational Attainment, 2019



Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

These disparities have changed significantly in recent years. From 1975 to 2014 relative wages for those with a high school degree fell from over 80% of the amount earned by workers with at least a college degree to less than 60%.⁴⁸ Since 1980 the only group of workers whose median income has increased are those with at least four years of college; from 1980 to 2015 the median earning of a college-educated worker increased by 11%, from \$57,764 to \$64,000. Meanwhile the median income for workers who had not completed high school dropped from \$33,442 in 1980 to \$25,000 in 2015, a loss of 25%.⁴⁹

Level of education is not only correlated with wages, but also with another important variable—health benefits. Across education groups, workers with a bachelor’s degree or higher level of education are the only group that did not experience much of a decline in health insurance coverage received through employers. Coverage fell among all other education groups. The sharpest drop was among workers with less than a high school education, as the share of these workers with an employer-sponsored health plan fell from 66% in 1980 to 37% in 2013.⁵⁰

When the returns to work for those at the bottom of the wage distribution are particularly low, more prime-age men in particular choose not to participate in the labor force. In recent years there has been a decline in male workforce attachment. This decline has largely been concentrated among those with a high school degree or less. In 1964, 98% of prime-age men with a college degree or more participated in the workforce, compared to 97% of men with a high school degree or less—a virtually negligible difference. In 2015, the participation rate for college-educated men had fallen slightly to 94%, while the rate for men with a high school degree or less had plummeted to 83%.⁵¹

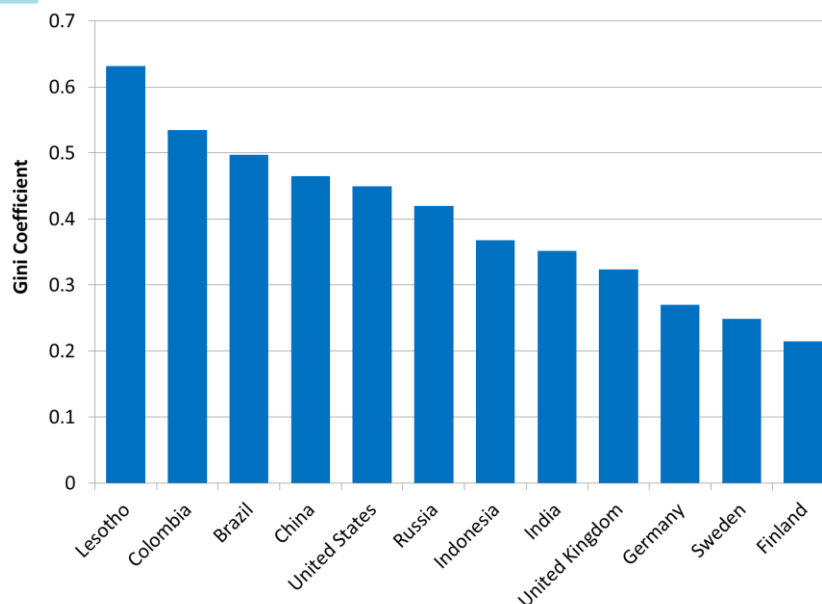
4. INTERNATIONAL DATA ON INEQUALITY

4.1 Cross-Country Comparisons

We can compare the U.S. data presented so far to data on income inequality, wealth inequality, and economic mobility in other countries. The Gini coefficient for the United States is higher than that of all other major industrialized countries, signifying that the country has a higher degree of income inequality. Figure 14 shows the range in income inequality across different countries. Lesotho, with a Gini coefficient of 0.63, has the highest degree of income inequality of any country. Finland, with a Gini coefficient of 0.21, has the lowest level of income inequality. While many of the countries with the lowest income inequality are also high-income countries, inequality is also relatively low in Hungary, Belarus, Ethiopia, and Pakistan, among others.

Patterns across geographic regions are fairly consistent. Latin American countries, for example, tend to have relatively high degrees of inequality. In addition to Brazil and Colombia, Haiti, Guatemala, Panama, and Chile all have Gini coefficients above 0.50. Asian countries, in contrast, appear, by this measure, to be more economically equal. Most countries in the Asian continent have Gini coefficients between 0.3 and 0.4. Sub-Saharan Africa appears to have the greatest variability, ranging from 0.33 (Ethiopia) to 0.63 (South Africa and Lesotho).⁵²

Figure 14. Income Gini Coefficient for Select Countries



Source: CIA World Factbook, United States Central Intelligence Agency.

Note: Year of data varies.

The trend toward higher income inequality is not limited to the United States. Between 1985 and 2008 income inequality increased in 17 of 22 OECD countries (it was constant in three, and decreased in two).⁵³ The International Monetary Fund notes that income inequality has “increased substantially” in most developed countries since the 1990s, as well as in Asia and Eastern Europe.⁵⁴ A 2012 study by the United Nations, which looked at Gini coefficient trends from the early 1990s to 2008, found that inequality increased by 24% in China, 16% in India, and 5% in South Africa, while inequality decreased by 9% in Brazil, along with decreases among other Latin American countries.⁵⁵ In 2015 the World Economic Forum identified income inequality as the top global issue facing the world’s leaders in the coming years, noting that inequality “is a universal challenge that the whole world must address.”⁵⁶ Thus when we consider the causes of increasing income inequality (in the next section) we will need to focus not just on the United States, but on broader changes occurring across the world.

Just as with income inequality, the United States has the highest degree of wealth inequality of any developed nation, with one report referring to the “Unequal States of America.”⁵⁷ Wealth inequality in the U.S. is higher than in many countries with very high income inequality, including Lesotho, Colombia, and Brazil.

Finally, economic mobility appears to be lower in the United States than in nearly all other developed nations, except for the United Kingdom and Italy, based on the strength of the relationship between fathers’ and sons’ earnings.⁵⁸ Analysis by the OECD finds a negative correlation between income inequality and economic mobility—those countries with higher income inequality tend to have lower economic mobility.⁵⁹ The study finds that this relationship may be linked to differences in educational opportunities. Specifically, low-income groups in societies with high inequality tend to underinvest in education, reducing their mobility and perpetuating inequalities. Recommended policies focus on improving access to education for low-

income groups, not just during youth but access to job-training and formal education throughout one's working life.

4.2 Global Inequality

According to the 2018 'World Inequality Report', global inequality seems to have stabilized, after widening for several decades. The share of world's income captured by the richest 1 percent has shrunk slightly since its peak in 2007. However, inequalities between and within countries are still high. Between 1980 and 2016, the richest 1% of the world received 27% of the income growth, while the bottom 50% only got 12%. The actual level of global inequality would have been even higher, had it not been for recent rapid growth in China, moving many people in China out of extreme poverty and toward "global middle class" status.

Just as a Gini coefficient can be calculated for an individual nation by constructing a Lorenz curve, some economists have tried to estimate the global Gini coefficient for income. For example, a 2015 paper estimated the global Gini coefficient to be 0.65 based on 2013 data.⁶⁰ Obviously, any estimate of the global income distribution must make a number of assumptions due to the lack of complete data, and thus different studies have resulted in slightly different global Gini coefficients. A 2015 World Bank paper estimated the global Gini coefficient to be 0.71 in 2008,⁶¹ while a 2016 analysis produced 9 different estimates (depending on the assumptions) ranging from 0.59 to 0.61 for 2013.⁶² More recently, a 2019 analysis estimated the global Gini coefficient to be between 0.57 and 0.59 using 2015 data.⁶³

Suppose the global Gini coefficient is around 0.60. If we compare this with the values in Figure 14 we notice that the global Gini coefficient is higher than that for almost every individual country. While you might expect that the global Gini coefficient would be approximately an average of the coefficients for each country, this is clearly not true. How can it be that the global Gini coefficient is higher than the value for nearly all countries?

To resolve this seeming paradox, we must realize that the incomes found in most countries do not cover the full range from the world's poorest to the world's richest. For example, in many developed countries such as Germany and Switzerland there are virtually no people living below the World Bank's measure of absolute poverty of \$1.90 per day. The United States is an exception; the World Bank estimates that more than 3 million Americans live below the global poverty line.⁶⁴ In Lesotho—the country with the highest income Gini coefficient—about 60% of the population lives in absolute poverty, and income per capita is only about \$1,300 per year.⁶⁵ So even those with relatively high incomes in Lesotho may not be particularly rich by global standards. But when we calculate the global Gini coefficient we bring together all the world's incomes, comparing the 800 million living in absolute poverty to the 5 million or so making more than \$1 million per year.⁶⁶

Another way to understand the extremely unequal global income distribution is to consider what income is necessary to reach various percentiles. According to the online Global Rich List calculator, an annual income of only about \$7,000 is needed to make it into the top global quintile.⁶⁷ And an annual income of only \$33,000 puts you in the global top 1%. So an American worker making a median U.S. wage of around \$48,000 per year is well into the global top 1%.⁶⁸

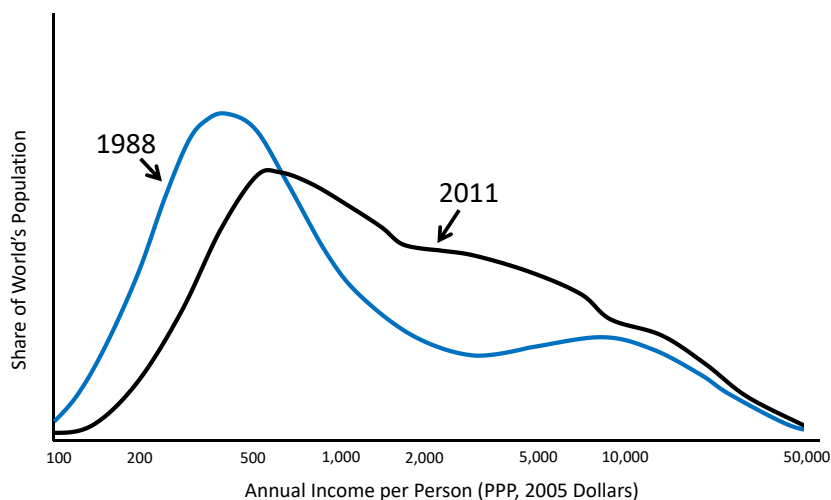
In other words, the country in which one is born largely determines one's economic fate.⁶⁹ Some scientists refer to a global “birth lottery,” whereby if:

you are lucky enough to be born in a wealthy country, you will more likely enjoy the great fortunes and opportunities that come from being a citizen of that country. Conversely, if you “lose” the birth lottery, and you are born in a poor country, your life chances and circumstances will mostly likely suffer accordingly.⁷⁰

As mentioned previously, income inequality is increasing in most countries, including China, India, and most developed nations. You might then conclude that the global Gini coefficient is also increasing. However, various studies conclude that global income inequality is decreasing in recent decades.⁷¹

How can the Gini coefficient for most countries be increasing, while the global Gini coefficient is declining? Essentially, the growth of the global middle class is reducing global inequality even as it increases national-level inequality in many countries. Consider that several decades ago nearly all people in China and India—the world's two most populous countries—had very low incomes by global standards. Recent economic growth in these countries has increased national level inequality, specifically between relatively high incomes in urban areas and the still-low incomes in rural areas. But economic growth in these two countries has led to a surge in the number of people classified in the global middle class. This emerging global middle class is reducing global inequality.

Figure 15. Global Income Distribution, 1988 and 2011



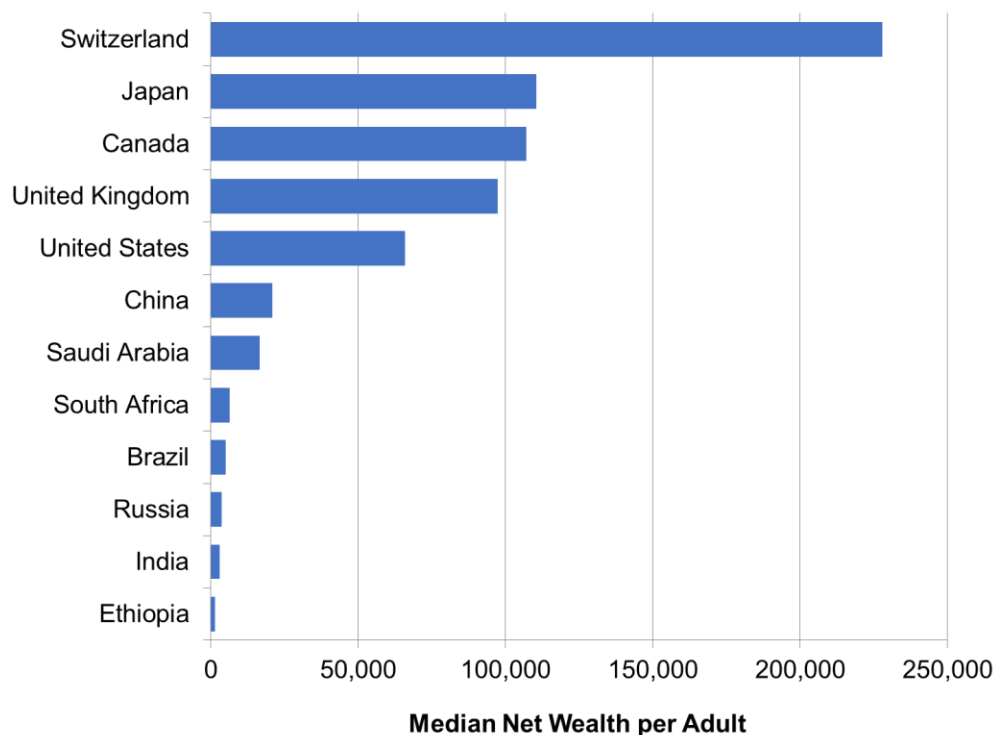
Source: Our World in Data website, <https://ourworldindata.org/income-inequality/>

We can see evidence of this shift in Figure 15, which shows the global distribution of income in 1988 and 2011. Note that this income distribution graph is different from our Lorenz curve graphs, as the y-axis shows shares of the world's population at various income levels, and the x-axis presents income levels using a nonlinear scale. In 1988 we see a distribution with two “peaks”: one around a few hundred dollars per person per year and another around \$10,000. Thus there were two large concentrations of people in 1988—those who were very poor and those who were

relatively well-off, with comparatively few people in the middle. But in 2011 we see that the “valley” has been filled in as the percentage of people with incomes between \$1,000 and \$5,000 per year has grown. This largely represents the emerging global middle class in China, India, and other rapidly-developing countries.

Median wealth levels vary considerably across countries, as shown in Figure 16. Switzerland has the highest median net worth per adult, around \$230,000. The median adult in Japan and Canada has more than \$100,000 in net assets. The United States has a comparatively modest median net worth of around \$65,000, ranking 22th globally behind such countries as Spain, Italy, and South Korea. However, the U.S. has a high *average* net worth of about \$430,000 per adult, ranking 3rd globally. The large difference between median and average net worth in the U.S. further illustrates its high degree of wealth inequality; it indicates that a few very wealthy people raise the average wealth considerably. Median net worth in China is about \$21,000 per adult, which increased by more than a factor of 10 between 2000 and 2019. Median net worth in the world’s poorest countries is less than \$500 per adult.

Figure 16. Median Net Worth per Adult, Select Countries, 2019



Source: Credit Suisse, 2019.

4.3 Inequality and Economic Growth

As discussed above, the emerging global middle class in countries such as China and India has increased national-level inequality even as it contributes to declining global inequality. A lively debate among development economists has focused on whether increasing economic inequality is an inevitable consequence of the initial stage of the development process. Specifically, the **Kuznets curve hypothesis** emerged in the 1950s arguing that inequality initially increases with

economic development as industrialization causes a migration of workers away from agriculture into cities, seeking higher-paying jobs. As wages remain low in rural areas, a large urban-rural income gap develops. However, with further economic growth inequality peaks and then declines as a country becomes more democratic and implements welfare state policies. Plotted over time (on the x-axis) as a country develops, a country's Gini coefficient (plotted on the y-axis) would first rise and then fall, creating a curve with an inverted-U shape.

The Kuznets curve hypothesis, if valid, carries a rather powerful policy implication—that rising inequality should be tolerated during the initial stages of development and that the key to reducing inequality in the long run is to keep promoting economic growth. Broad acceptance of the Kuznets curve hypothesis, based on early empirical studies, in the 1960s and 1970s led many economists to accept it as an “iron law.”⁷² Subsequent studies, however, using more sophisticated models and better data have generally refuted the hypothesis as a general rule. Instead of a general pattern of increasing and then decreasing inequality, these studies indicate that inequality changes over time are contextual, dependent upon within-country historical and policy conditions, as well as international factors.⁷³

A 2017 analysis of China suggests that inequality may have peaked there around 2010, slightly declining since then.⁷⁴ The decline is attributed to various factors including public investment in rural infrastructure, minimum wage laws, and expansion of social programs—factors that are consistent with the Kuznets curve hypothesis. But the recent increase in inequality in most developed countries, linked to international factors and within-county policies, demonstrates that economic growth is no guarantee of declining inequality.

5. CAUSES AND CONSEQUENCES OF INEQUALITY

The question of why inequality has been increasing in the United States and many other countries is a source of much debate. We now consider several of the explanations proposed by economists, recognizing that rising inequality is something that cannot be attributed to a single cause. We then turn to a discussion of the consequences of a high degree of inequality in a society.

5.1 Causes of Inequality

Demographic Changes

One point on which economists appear to agree is that some of the increase in inequality is due to changing demographics. As people worldwide live longer on average, the proportion of the population that is elderly increases. As elderly people tend to have relatively low incomes, this demographic trend pushes incomes down on the low end. Another trend increasing the share of the population with low incomes is an increase in the rate of single parenthood. Single-parent households in the U.S. are much more likely to have low incomes, as we saw in Figure 6. At the other end of the income spectrum, the increasing number of women entering the labor force has helped boost the income of married-couple households. A similar factor separating households is the increase in “assortive mating”—the tendency of people to marry partners who have a similar earning potential to themselves. For example, based on U.S. data men with undergraduate degrees

are now about twice as likely to marry women with undergraduate degrees as they were in 1960. A 2014 study concludes that the U.S. Gini coefficient would be significantly lower (0.34 as opposed to 0.43) if people married randomly rather than selecting mates who are similar to themselves in terms of earnings potential.⁷⁵

Decline in Wages as a Share of Total Income

The rise in inequality, however, cannot be explained simply by demographic changes. A major factor that helps explain growing inequality is that the wage “share” of the income “pie” has diminished over time. Wages and salaries make up the majority of **labor income**, which includes the implicit value of fringe benefits. **Capital income** includes rents, profits, and interest. “**Rent**,” as economists use the term, refers not just to rent for housing but to payments for the use of any capital asset, such as machinery or an e-mail list. (See Box 4 on “rent-seeking.”) In general, higher-income households receive a larger portion of their total income from capital income. The dramatic increase in concentration of wealth and income is strongly related to patterns of capital ownership, with those who have little or no capital failing to capture economic gains.

BOX 4: RENT SEEKING AND INEQUALITY

“Rent seeking” refers to the act of expending money, time, or other resources in the hope of extracting value that already exists somewhere, instead of using those resources to produce new economic value. In other words, a rent seeker will try to bring about redistribution of existing wealth in his or her favor instead of generating new wealth.

One example of rent seeking is when lobbyists try to convince government officials to adopt policies favorable to the interests they represent, at the expense of other economic actors. This is considered rent seeking because, even though such lobbying can produce benefits for the lobbyists’ employers, it does not generate new economic value. One could even make the case that it subtracts from value creation in an “opportunity cost” sense: by diverting potentially useful or productive resources (including the effort and intelligence of the lobbyists) for the purpose of some zero-sum gain.

The effect of rent seeking can be to exacerbate inequality, because those who are already rich and powerful are most effective at directing government support and subsidies to themselves. The economist Mancur Olson has proposed a depressing scenario in which countries tend to grow less competitive and efficient over time, as organized interest and lobby groups gain in importance, and are increasingly able to influence government.⁷⁶

Clearly, the motivation of groups who criticize the dominance of the top “1 percent” is based on a perception that much of the wealth of those at the very top is based on rent-seeking activities rather than genuine economic productivity.

Since the 1970s the labor share of total income has generally been declining, especially in developed countries.⁷⁷ A declining labor share over time suggests that wage growth, if present, is not keeping up with overall productivity growth. Real median wages in the United States, for example, only grew by 8% from 1979 to 2020—that’s not annual growth, but total growth over 41 years!⁷⁸ Meanwhile, real GDP per capita in the U.S. nearly doubled over this same time period.⁷⁹ In other words, there has been significant economic growth, but virtually none of it is going to the average worker.

The critical question is *why* this has been happening, and on this there is no universal agreement. In what follows, we consider the four most prominent explanations for the decline in wage share of total income:

1. Globalization and trade
2. Technological changes
3. The declining power of labor unions
4. The changing nature of work

Globalization is hypothesized to contribute to a decline in bargaining power of workers in developed countries. As employers have become accustomed to looking around the world for lowest cost workers, transnational corporations have shifted production facilities to developing countries resulting in a loss of many middle-income jobs in developed countries. Additionally, growth in trade has put downward pressure on middle-class wages as producers in richer countries face competition from imports from poorer countries and are compelled to either lower prices (and therefore wages, too) or simply leave the business. Competition from imports has indeed eliminated many industrial jobs—in textiles and automobiles, for example—that formerly fell in the middle of the U.S. wage distribution. The replacement of such jobs by lower-income service and retail jobs has contributed to the increase in inequality, although economists disagree about the extent to which globalization is responsible for the increase in inequality in developed nations. Even economists who believe the effects are significant, such as Nobel-prize winner Paul Krugman, note that isolating the impact of globalization on inequality is difficult.⁸⁰

While there is debate about the impact of globalization on middle-class outcomes in developed nations, recent research suggests globalization is a major factor in the growth of top incomes. A 2017 analysis of executive compensation in the United States from 1993-2013 finds that executive salaries have increased at a higher rate in companies more exposed to trade. Further, the rise in salaries cannot be explained based on the executive’s talent, but seems to be related to their ability to take advantage of poor-governance settings in developing countries. The researchers conclude that “globalization has played a more central role in the rapid growth of executive compensation and U.S. inequality than previously thought, and that rent capture is an important part of this story.”⁸¹

Research on the impacts of globalization on inequality in developing countries shows mixed findings. The transfer of low-skilled labor-intensive jobs to workers in developing countries is likely to raise wages for less skilled workers and reduce poverty and inequality levels. However, empirical evidence shows that growth in trade actually increases the earnings of more skilled workers as the transfer of technology through trade is more skill-biased.⁸² Also, regions or

industries that have greater access to export markets and are more closely connected to the globalized economy are likely to benefit more from trade than regions or industries that are less connected to the global economy. For example, urban incomes in China have increased much faster than rural incomes, as most export-oriented manufacturing industries are located in the urban areas.⁸³ A recent review of the literature on the relationship between trade and inequality concludes that:

... the effects of trade on wage inequality are ... nuanced and depend on the specific country in question, the nature of trade liberalization and/or the type of trade that countries engage in. Most labour and trade economists agree that trade in final goods ... cannot account for the increases in growing wage inequality since the 1980s.⁸⁴

The second factor accounting for growing inequality has been the advent of rapid technological change.⁸⁵ New technologies related to computers, biotechnology, and other fields have become more important, increasing the income of skilled workers who understand and use the new techniques and equipment, while leaving behind the less-skilled workers who remain in low-technology occupations. The income of the skilled workers has risen relative to those of the less skilled simply because their skills are relatively scarce. The less-skilled workers are, in contrast, relatively abundant, depressing their average wage or “price.” In 1979 those with a college degree in the U.S. earned 35% more than those with just a high school degree. But by 2012 this differential had risen to 50%.⁸⁶

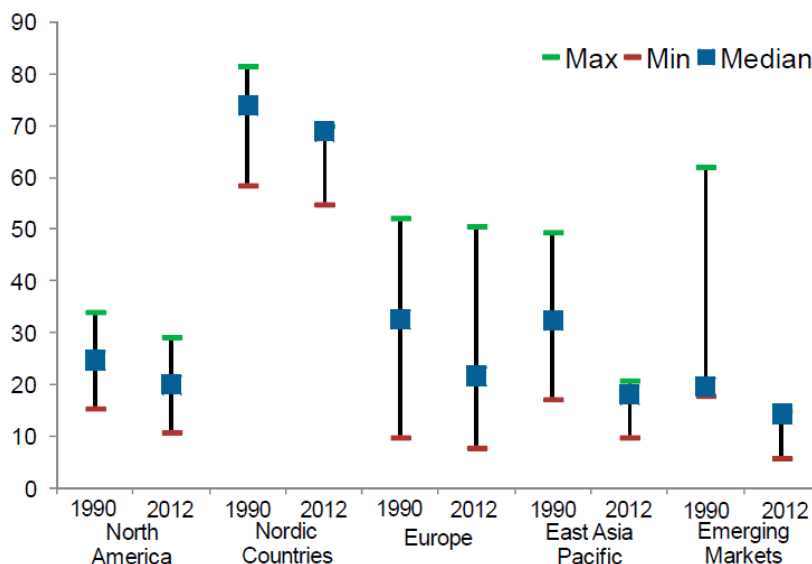
Technological change has also, especially in the long run, led machines to replace human workers for certain types of jobs (especially in services), making ever more workers at the low-skill end of the spectrum redundant. It has contributed substantially to a polarization of the labor market into groups of “high-skill” jobs at one end and many more “low-skill” jobs at the other end. A defining feature of a segmented labor market is its inflexibility; it is extremely difficult, if not impossible, to move from one segment to the other.

The third likely cause of rising income inequality is the progressive weakening of labor unions in recent decades. As illustrated in Figure 17 below, between 1990 and 2012 there has been a decline in union membership rate in both developed and developing countries.⁸⁷ In the United States, government policy has become decidedly less supportive of unions and low-wage workers, and the rate of union participation has declined markedly from a peak of around 25% in the 1950s to only about 11% today.⁸⁸ Labor union membership has also been falling recently in Germany, Japan, Sweden, Australia, and the United Kingdom.⁸⁹ A 2015 analysis by the International Monetary Fund finds that weaker unions increase income inequality, but more by fostering higher incomes at the top rather than depressing wages in the middle.⁹⁰

Finally, the theory of **dual labor markets** sheds some light on how the changing nature of jobs might have contributed to the recent decline in wage share of total income. According to this theory, the labor market is segmented into a “primary” sector where workers receive high wages, opportunities for advancement, job security, and other favorable working conditions; and a “secondary” sector where workers generally receive lower wages, enjoy few opportunities for advancement, and have little job security. Examples of secondary sector employment include arrangements such as contract work, on-call work, temporary help agencies, and others in the “gig”

economy, where employment is defined by shorter-term freelance or contract positions. In 1995 10% of employed workers in the United States were in such alternative employment arrangements. By 2015 this number had risen to 15.8%.⁹¹ In Europe, more than half of all new jobs created since 2010 are based on temporary contracts.⁹² This rise in secondary sector employment, where workers have weaker income protection and employers have greater flexibility in hiring workers on an “as-needed” basis could contribute to increasing inequality by widening the gap in wages and job quality between the primary and the secondary sectors.

Figure 17. Union Rate by Country Group (Percent)

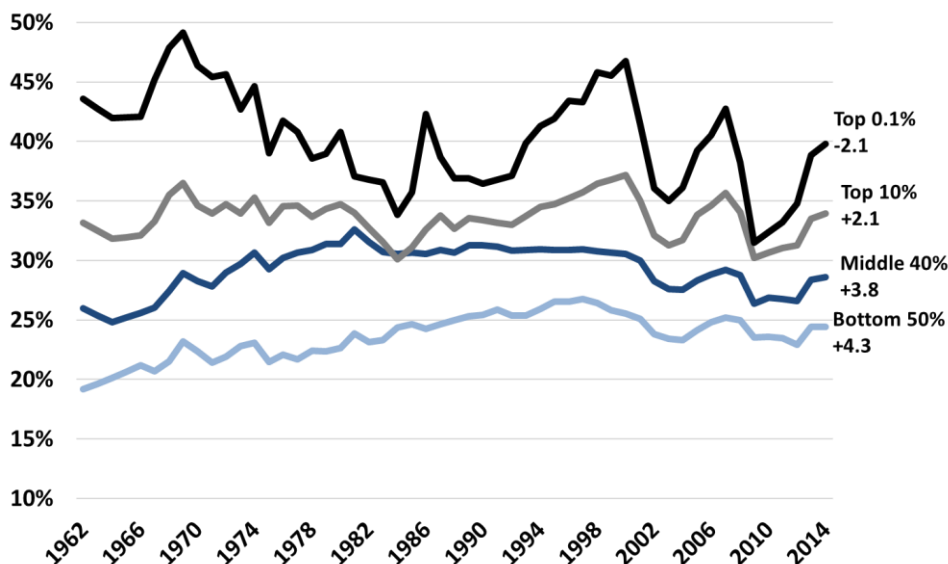


Sources: Organisation of Economic Co-operation and Development; and IMF Staff calculations (Dabla-Norris et al., 2015).

Domestic Policy Changes

The increase in inequality has also been explained in terms of policies that, intentionally or unintentionally, have led to higher inequality. In the United States, for example, there have been a series of tax cuts—during the 1980s under Ronald Reagan and during the 2000s under George W. Bush—that primarily reduced the tax burden on the wealthiest groups (though some of these tax cuts were reversed during the presidencies of Bill Clinton and Barack Obama). The 2017 tax cuts under President Trump follow the same pattern, with the largest benefits going to the higher income earners.⁹³ Overall, the difference in effective tax rates paid by the rich and the poor has narrowed, with reductions in federal income tax rates on the highest income earners and declines in corporate taxes as a percentage of GDP, at the same time payroll taxes on the working class have increased.⁹⁴ As illustrated in Figure 18, since the 1960s the total tax rate, combining federal, state and local taxes, has declined for the top 0.1% by 2.1 points while it has increased for the middle 40% by 3.8 points and for the bottom 50% by 4.3 points. A 2015 study finds that the income share of the top 1% increased the most in those countries that lowered their top marginal tax rates by the most percentage points.⁹⁵

Figure 18. Change in Tax Rates by Income Group, 1962-2014



Source: Piketty, Saez and Zucman, 2016.

Another policy change has been reduction in support for lower-income workers. The federal minimum wage (\$7.25 as of 2020) has fallen significantly behind inflation, lowering the purchasing power of the lowest-income workers. In addition to the negative effect on minimum-wage workers, this trend also adversely affects other workers’ bargaining power reducing the “floor” against which other wages are set.

Policy can also serve to reduce inequality. Research has found that a strong public sector, particularly in the provisioning of public goods, can reduce income inequalities.⁹⁶ In the United States, the earned income credit, which provides a tax benefit to lower-income workers, helps to reduce overall inequality.

As noted earlier, many of these policy changes have a political as well as an economic component. A major problem associated with increased inequality is that those who gain a greater share of total wealth are able to translate it into greater political power. This plays out, particularly in the U.S., through the system of campaign finance, in which candidates for political office can accept disproportionate donations from wealthy individuals or large corporations with an interest in, say, keeping taxes low for the rich or minimizing regulations on the financial sector. Well-endowed individuals or companies may also hire representatives (or lobbyists) to seek private interviews with influential politicians, in hopes of ensuring favorable legislation. This is another example of “rent-seeking” activity that does not produce any economic value but, rather, redistributes it, accentuating other trends towards greater income inequality.

Policy choices also affect the impact of other changes such as globalization. According to one analysis:

The standard framing presents globalization, like technological process, as an exogenous force, something that happens *to us*. In reality, globalization is a

complex process of integrating capital, product, and labor markets, where almost every characteristic of those newly integrated markets is the subject of, or should be the subject of, political and regulatory debate. Over the last 30 years we have indeed “chosen” a particular form of globalization in the United States – a form that benefits corporations and their owners at the expense of workers and their communities. If we had chosen globalization on different terms, however, economic integration would not have required rising inequality.⁹⁷

Thus this perspective suggests that it may be possible to reduce inequality through deliberate policy actions even while accepting an overall trend towards globalization.

5.2 Consequences of Inequality

Many researchers have studied the relationship between economic variables such as income and wealth, and other measures of well-being. As mentioned above, richer Americans have a life expectancy 10-15 years higher than the poorest Americans. Low-income Americans are more likely to suffer from psychological problems such as anxiety, depression, and attention problems.⁹⁸

But going even further, can a high degree of inequality impose broader costs on society—impacts that not only affect the poor, but all members of society? In their 2009 book *The Spirit Level*, Richard Wilkinson and Kate Pickett (both epidemiologists) present data showing that rich countries with greater inequality tend to have lower life expectancy, higher rates of infant mortality, and higher rates of mental illness.⁹⁹ They also find that higher inequality is associated with various social problems, including homicide rates, teenage pregnancy, and school dropout rates.

The findings of Wilkinson and Pickett that many social problems are a result of inequality are controversial. For example, an article in the *Wall Street Journal* criticized *The Spirit Level* for presenting selective data.¹⁰⁰ Also, a 2003 journal article by Nobel Prize-winning economist Angus Deaton concluded that “it is not true that income inequality itself is a major determinant of public health.”¹⁰¹

There seems to be greater acceptance among economists that excessive inequality can lead to reduced economic growth. A 2014 study published by the International Monetary Fund presents perhaps the most comprehensive analysis of the relationship between inequality and economic growth, based on data from 153 countries from 1960 to 2010.¹⁰² The study found that high inequality can indeed result in reduced economic growth and that “it would be a mistake to focus on growth and let inequality take care of itself, not only because inequality may be ethically undesirable but also because the resulting growth may be low and unsustainable,”¹⁰³ Further, the authors analyzed the impacts of redistributive policies, such as taxes and transfers. Their results suggest that redistributive policies can simultaneously reduce inequality and promote higher growth:

Extreme caution about redistribution—and thus inaction—is unlikely to be appropriate in many cases. On average, across countries and over time, the things that governments have typically done to redistribute do not seem to have led to bad growth outcomes, unless they were extreme. And the resulting narrowing of

inequality helped support faster and more durable growth, apart from ethical, political, or broader social considerations.¹⁰⁴

Finally, excessive economic inequality often fosters concentration of political power and a weakening of democratic institutions. The 2012 book *Affluence and Influence*, by Princeton University professor of politics Martin Gilens, analyzes decades of data on the relationship between the policy preferences of Americans at different income levels (based on opinion surveys) and actual policy outcomes.¹⁰⁵ He concludes that:

What I find is hard to reconcile with the notion of political equality ... The American government does respond to the public's preferences, but that responsiveness is strongly tilted toward the most affluent citizens. Indeed, under most circumstances, the preferences of the vast majority of Americans appear to have essentially no impact on which policies the government does or doesn't adopt.¹⁰⁶

6. RESPONDING TO INEQUALITY

While there is no consensus regarding the “right” amount of inequality in a society, to many people there is something disturbing about the current degree of inequality in the United States and other countries. Inequality needs to be addressed somewhat differently in developed and developing countries. We will mostly focus on inequality policies in developed countries, mainly the United States. But we will briefly consider addressing inequality in developing countries as well. Three basic policy approaches to reducing inequality are considered:

1. Tax and transfer policies
2. Wage policies
3. Public spending and regulatory policies

6.1 Tax and Transfer Policies

One way of reversing the trend toward greater inequality is through the tax system. By shifting more of the overall tax burden to high-income households, after-tax income inequality can be reduced. In other words, a more **progressive tax** system, where the percentage of income an individual (or household) pays in taxes tends to increase with increasing income, will, *ceteris paribus*, reduce a country's after-tax Gini coefficient.

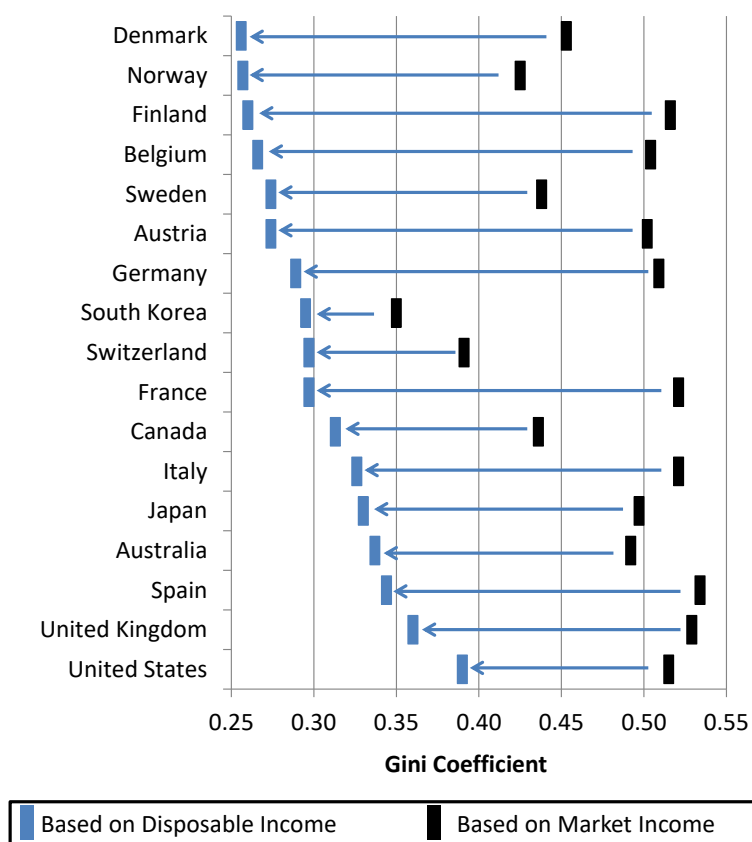
Determining the overall distributive impact of a nation's tax system can be rather complicated, so economists disagree about whether the U.S. tax system has become more or less progressive over time. For example, a 2007 analysis concluded that the U.S. tax system had become less progressive since the 1960s for three main reasons: a decline in the federal income tax rates on the highest-income earners, declining corporate taxes as a percent of GDP, and increases in payroll taxes (i.e., taxes funding Social Security and Medicare).¹⁰⁷ But a 2017 study, also looking back to the 1960s, found a “large and steady increase in tax progressivity” in the U.S., primarily due to the expansion of tax credits provided to lower-income households.¹⁰⁸

SOCIAL AND ECONOMIC INEQUALITY

Regardless of historical changes in U.S. tax progressivity, you may assume that the United States tax system must be much less progressive than the tax systems in most European countries, as the U.S. has a higher Gini coefficient. Surprisingly, according to analysis by the OECD the United States has one of the *most progressive* tax systems of any industrialized country.¹⁰⁹ While most European countries have high overall taxes relative to the United States, their tax systems are rather proportional, largely due to their reliance on value-added taxes. The tax system in the U.S. is slightly progressive overall, due to a progressive income tax schedule, but this effect is limited by numerous loopholes and deductions available to upper-income taxpayers.

It is also important to note that the U.S.'s Gini coefficient based on **market income** (i.e., income before any taxes or government benefits) isn't unusually high—at essentially the same level as France, Germany, Belgium, and Finland, as shown in Figure 19. So why does the United States end up with a higher Gini coefficient than all other industrialized countries?

Figure 19. Market- and Disposable-Income Gini Coefficients, Select OECD Countries



Source: OECD online statistics database, *Income Distribution and Poverty*.

Note: Data for most countries are from 2014. Other data are from 2013 or 2015.

The answer is that the reduction of income inequality as a result of transfer programs tends to be much greater outside of the United States. Figure 19 compares the market-income Gini coefficient in select OECD countries to their **disposable-income** Gini coefficient, where disposable income includes adjustments for both taxes and transfers. Government transfers include social security

payments, the monetary value of medical benefits, unemployment insurance, food subsidies, and other cash and non-cash benefits.

We see in Figure 19 that only two countries, South Korea and Switzerland, start off with a market-income Gini coefficient below 0.40. Most countries rely upon taxes and transfers (but again, primarily transfers), to substantially lower their final disposable-income Gini coefficient. The length of each country's arrow represents the extent to which taxes and transfers lower their Gini coefficient. Denmark, for example, has a market-income Gini coefficient of 0.44 but then after taxes and transfers its disposable-income Gini coefficient falls to 0.26, a reduction of 0.18 points. The largest Gini coefficient reduction, 0.25 points, occurs in Finland. The Gini coefficient reduction in the United States of 0.12 points is among the lowest in the figure.

The policy implication of this analysis is that the countries with the lowest disposable-income Gini coefficients achieve this not necessarily through an equitable market-income distribution or highly progressive tax systems, but through substantial and progressive transfer systems. For example, cash transfers, including old-age, unemployment, and disability payments, comprise an average of 25% or more of household income in countries such as France, Finland, Sweden, and Denmark, but only about 10% of income in the U.S.¹¹⁰ Some countries rely heavily on the provision of public services (including health care and education) to lower disposable-income inequality, particularly Belgium, France, and the United Kingdom.¹¹¹ Thus most industrialized countries' success at lowering income inequality can be largely attributed to the use of cash and non-cash transfers. Of course policy makers can seek to reduce disposable-income inequality by making tax systems more progressive, but the evidence demonstrates that industrialized countries reduce inequality mostly by progressive transfer systems rather than progressive tax systems.

6.2 Wage Policies

Raising the minimum wage is often proposed as a way to reduce income inequality. The current federal minimum wage, at \$7.25 per hour, has been increased at times over the years but it has not kept up with inflation. If the minimum wage in the late 1960s is adjusted for inflation, in current dollars it comes to approximately \$10 per hour. Many believe that the current \$7.25/hour minimum wage is insufficient even to provide for the basic necessities of a family. In several U.S. states, "living wage" campaigns have advocated passing legislation at the state or municipal level that requires a minimum wage higher than the federal standard. About 30 states have a higher minimum wage than \$7.25, the highest minimum wage as of 2020 being \$13.50/hour in Washington state.

While raising the minimum wage can be justified for other reasons, economists generally find that minimum wage increases only slightly reduce overall income inequality.¹¹² Much more of the increase in income inequality in the U.S. was linked to changes in the top of the income spectrum. Analysis by the OECD found that raising the minimum wage in Europe would have a negligible impact on the income ratio of the 90th to 10th percentiles.¹¹³ One problem is that the benefits of higher minimum wages do not necessarily go primarily to poor households. According to a 2014 study, only 13% of minimum wage earners in the U.S. live in households below the poverty line. Even further, 45% of those making the minimum wage live in households that have a total household income at least three times the federal poverty level, which would place them in the top half of the income spectrum.¹¹⁴ This implies that a significant share of minimum wage workers are

younger workers living in non-poor households, or workers who rely on other family members for the majority of household income.

Other analyses focus on the impact of minimum wage increases on workers that are paid above the minimum wage. Raising the minimum wage creates pressure on employers already paying slightly above the minimum wage to also increase wages, which can lead to further pressure moving up the income scale in a ripple effect. According to analysis by the Brookings Institution, increasing the minimum wage could raise the wages of about 30% of the U.S. workforce, even though only about 3% of American workers are actually paid the minimum wage.¹¹⁵ A similar 2017 analysis concluded that gradually raising the U.S. federal minimum wage to \$15/hour by 2024 would primarily increase wages for full-time adult workers making above the minimum wage, and lead to disproportionate wage increases for women and minority workers.¹¹⁶

Raising the minimum wage reduces inequality most effectively when the benefits are targeted toward low-income adult earners, rather than younger non-poor workers. One country that has used a creative approach to target the benefits of minimum wages to adult workers is Australia. For those over 21 years old, the minimum wage is equivalent to about US\$13/hour. But for younger workers, the minimum wage is lower. For example, for workers 18 years old the minimum wage is around US\$9/hour.¹¹⁷

6.3 Public Spending and Regulatory Policies

Other proposals for reducing economic inequality focus on public spending priorities. Reducing educational inequalities is often presumed to lead to reductions in earnings inequality. But once again, the results are somewhat mixed. A 2015 study looking at the United States found that about 20% of U.S. income inequality could be linked to differences in education.¹¹⁸ The authors then considered how income inequality would change if educational attainment increased. In an extreme scenario where *everyone* received a college degree, inequality would be substantially reduced. But under more plausible scenarios where 10% of people achieved higher levels of educational attainment (e.g., going from a high school degree to a college degree), the impact on inequality was found to be “very modest.” A similar 2015 analysis also concluded that increasing the share of people who have a college degree by 10% in the U.S. would not significantly impact overall earnings inequality, but that it would reduce inequality in the lower half of the income spectrum.¹¹⁹ Recent analysis by the IMF based on data from a sample of developed countries also found no relationship between the share of workers with higher education and inequality.¹²⁰

One limitation of these studies is that they do not consider educational inequalities that start well before college. Policies such as universal pre-kindergarten or more effective public schools may have a greater impact on reducing inequalities. A 2014 study based on European data tracked people from primary school over 30 years to identify how educational reforms ultimately led to changes in income inequality.¹²¹ This analysis concluded that “educational policies have an impact on the income and earnings distribution” and that “educational policies can be part of an effective strategy” to reduce economic inequality.

Of course, the issue of public spending is related to our previous discussion of transfers. A country seeking to reduce economic inequality may decide to place a higher priority on transfer spending

as opposed to, say, military spending. Expansion of direct income support for low-income workers might be one approach to address inequality. Another, more radical, proposal is to institute a guaranteed basic income as discussed in Box 5 below. If set at a relatively low level, a guaranteed income for all workers could provide greater equity without undercutting the incentive to work. Other potential ways to use public spending to reduce inequalities include funding career skills training, housing assistance, and health care.

BOX 5: GUARANTEED BASIC INCOME

A guaranteed or universal basic income (BI) is a specific form of unconditional cash transfer, where periodic cash payments are provided unconditionally to all individuals, without means-test or work requirements, so that people can at least cover basic expenses such as housing, food, and health care. Advocates of BI argue that such a program would not only mitigate issues of unemployment and poverty but also provide a basic social net and help relieve work-related stress. A BI system could also encourage innovation by providing individuals with freedom to explore their interests, and it could bring benefits, such as lower crime rates and reduced environmental damage from lower economic activities.

However, there are several challenges to instituting a BI system. First, would giving people unconditional income disincentivize them from seeking work? Research on a number of experiments shows mixed findings. For example, a pilot program implemented in the Namibian village of Omitara in 2008 and 2009 showed that the introduction of a basic income program increased the rate of those engaged in income-generating activities from 44% to 55% percent.¹²² However, a two-year government experiment in Finland, making monthly cash payments of €560 (US\$635) to 2,000 unemployed individuals, showed that individuals receiving BI were happier and healthier than those receiving unemployment benefits of about €648 (US\$734) per month, but they were not more likely to work.¹²³

Another concern relates to funding a BI program. In the United States, for example, giving every American \$10,000 a year—a value below the poverty line—would cost at least \$3 trillion, which is about eight times the current government spending on social service programs.¹²⁴ Other suggestions for funding BI programs include collecting fees from government-created monopolies (such as the broadcast spectrum and utilities), income from private uses of government land (currently leased out, in general, far below market rates), or income from taxing carbon emissions.

Various experimental trials of basic income policies have been implemented in parts of Canada (Ontario), Spain (Barcelona), and Netherlands, as well as in developing countries such as India, Namibia, Uganda, and Kenya. The most well-known BI experience in the United States is in the state of Alaska, where each individual gets an annual share of the state's fossil fuel income—\$1,022 per person in 2016. Other recent trials include small-scale experiments in the cities of Oakland and Stockton in California.

Government policies that provide labor unions with more bargaining power may be successful at reducing income inequality. As mentioned earlier, the declining power of labor unions is generally recognized as one factor that has caused inequality to increase in developed countries. Research by the IMF suggests that stronger labor unions may be able to reduce inequality primarily by restraining the growth of top executive salaries.¹²⁵

Other ideas that have been proposed by economists to reduce inequality focus on employment policies. The Federal Reserve in the United States has traditionally prioritized price stability (i.e., low inflation) over reducing unemployment. Overall, policies that lower unemployment even at the expense of higher inflation will tend to help lower-income households as they are the most likely to be unemployed.¹²⁶ Even further, the government could serve as an “employer of last resort” to achieve full employment, directly hiring people to work on infrastructure projects, natural resource conservation, and other public projects. Such projects also provide general public benefits which improve the quality of life for all, including low-income workers.

Finally, research by the OECD finds that reducing the gap in job protection between regular and temporary workers would be the most effective government policy in reducing inequality—more effective than increasing labor union membership, minimum wages, and educational attainment.¹²⁷ Part-time and temporary workers not only tend to receive lower pay and benefits, but have little job stability; and as more workers shift to jobs in the “gig economy,” income unpredictability is likely to become a problem for an increasing share of people, and exacerbate income inequality.¹²⁸ Some countries, including Norway, France, and Sweden, have laws mandating that employers must provide equal pay and benefits to temporary workers.¹²⁹ Such regulations might help reduce inequality due to labor market segmentation.

6.4 Addressing Inequality in Developing and Transitional Countries

As the Kuznets curve hypothesis has fallen out of favor, a consensus has emerged that it is possible for a country to develop economically without increasing inequality. While the Kuznets curve hypothesis posits inequality as an outcome of economic growth (at least in the initial stages of development), a growing body of evidence finds that high levels of inequality actually impede economic development. Further, high levels of inequality reduce the potential for a developing country to lower absolute poverty, given a constant amount of economic growth.¹³⁰

Many of the ways developing countries can address inequality through national policies are the same ones developed countries can use, such as increasing public spending, the bargaining power of labor, and progressive taxation.¹³¹ But certain policies may be more effective in developing countries when starting from an initial lower level of worker protection and public provisioning. Evidence from China suggests that strong minimum wage laws are effective at reducing inequality in the lower end of the income spectrum.¹³² In 2004 China mandated that local governments must increase their minimum wages at least every two years, and the real minimum wage nearly doubled from 2004 to 2012. Investments in higher education may also be more effective at reducing inequality in developing countries, as shown in a 2016 study of Africa.¹³³

Brazil is often touted as a country that has made significant progress in reducing its inequality. Brazil’s Gini coefficient has fallen from about 0.60 in 2000 to around 0.50 now. A central

component of Brazil's efforts to reduce inequality has been its Bolsa Familia program, initiated in 2003. The program provides families with cash transfers as long as their children are enrolled in school and receive preventative health care including vaccinations. About one-quarter of Brazil's population is covered by the program. According to the World Bank, Bolsa Familia "is widely seen as a global success story, a reference point for social policy around the world."¹³⁴ The program has significantly increased school attendance, particularly for girls. Brazil also significantly increased its minimum wage, which increased over 70% in real terms from 2002 to 2014.¹³⁵ The OECD notes Brazil's success in reducing inequality but recommends further progress by increasing the progressivity of taxes, investing more in education, and using the national pension system as a means of redistribution.¹³⁶

6.5 Concluding Thoughts

It is evident that income and wealth in the United States and many other countries are increasingly concentrated, with current inequality levels limiting the economic opportunities and well-being of many. In the aftermath of the Great Recession of 2007–2009, much more attention has been focused on inequality, by economists, politicians, and the general public.

Policies can be effective at reducing inequality. These could include a more progressive tax structure, putting more of the tax burden on groups at the top of the income spectrum; higher minimum wages and improved conditions for workers; employment-creating investment in infrastructure; and transfer systems that provide a strong "safety net" for lower-income workers. The robust transfer systems found in many European countries appear to be highly effective in reducing inequality, resulting in some of the world's lowest disposable-income Gini coefficients. Full-employment policies and job protections for temporary and part-time workers also seem important as a policy response to high levels of inequality.

Transfers are much more limited in the United States, where overall tax revenues are lower. Tax increases on higher-income earners could be used to fund expanded transfer programs, but currently the U.S. is moving in the opposite direction. The 2017 Tax Cuts and Jobs Act lowered taxes, particularly for high-income Americans. While its proponents suggested that lower taxes would promote greater economic growth and benefits for all, it is likely that reduced progressivity of the U.S. tax system will directly increase economic inequality, as well as reducing tax revenues for transfer programs or investment in employment creation.

Thus reducing inequality is as much a political challenge as an economic challenge. High economic inequality tends to foster excessive concentration of political power, which in turn tends to protect the status quo and make reform more difficult.

KEY TERMS AND CONCEPTS

Lorenz curve: a line used to portray an income distribution, drawn on a graph with percentiles of households on the horizontal axis and the cumulative percentage of income on the vertical axis

Gini ratio (or Gini coefficient): a measure of inequality, based on the Lorenz curve, that goes from 0 (absolute equality) up to 1 (absolute inequality). Greater inequality shows up as a larger area between the Lorenz curve and the diagonal line of absolute equality

capital gains: increase in the value of an asset at the time it is sold compared to the price at which it was originally purchased by the same owner

economic mobility: the potential for an individual or household to change its economic conditions (for better or worse) over time

labor market discrimination: a condition that exists when, among similarly qualified people, some are treated disadvantageously in employment on the basis of race, sex, age, sexual preference, physical appearance, or disability

gender wage gap: the difference in average wages between men and women; women are paid, on average, less than men

occupational segregation: the tendency of men and women to be employed in different occupations

Kuznets curve hypothesis: the theory that economic inequality in a country initially increases during the early stages of economic development, but eventually decreases with further development

labor income: payment to workers, including wages, salaries, and fringe benefits

capital income: rents, profits, and interest

rent: payments for the direct or indirect use of any capital assets

market income: income including wages, salaries, self-employment income, and capital income, but excluding any taxes or transfers

disposable income: income after subtracting all taxes paid from market income, and then adding the monetary value of cash and non-cash transfers

dual labor markets: a situation in which *primary* sector workers enjoy high wages, opportunities for advancement, and job security, while *secondary* sector workers are generally hired with low wages, no opportunities for advancement, and little job security

progressive tax: a tax in which the percentage of one's income that is paid in taxes tends to increase with increasing income levels

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DISCUSSION QUESTIONS

1. What are some of the differences between inequality of income and inequality of “capabilities” or well-being? How are these concepts related? Which one do you think deserves more attention from policymakers?
2. What do you think is the minimal amount of annual income that an individual, or a small family, would need to live in *your* community? (Think about the rent or mortgage on a one- or two-bedroom residence, etc.) What does this probably mean about where the average level of income in your community fits into the U.S. income distribution shown in Table 1?
3. Were your parents better off economically than their parents? Do you believe that you will be better off than your parents? Do you think that this is true of most of your friends?
4. Make a list of the reasons that inequality can be considered desirable, and the ways in which inequality hurts social well-being. Is it possible to limit the negative consequences of inequality while still harnessing the positive aspects?
5. What do you think are the reasons that the United States is more unequal than other developed countries, and has lower economic mobility? What policies might be used to address this issue?
6. What are the main trends in global inequality? Do these seem to be positive or negative in terms of human well-being?
7. If you could change a single one of the “causes” of inequality described above, on which would you choose to focus? Why?
8. Do you think rising inequality in a rapidly developing low-income country is necessarily a problem? How might you approach the issue of high economic inequality differently in a developing versus a developed country?
9. Do you generally believe that raising taxes on the rich is an appropriate approach for reducing economic inequality? What level of taxation on the rich do you think is fair?
10. Do you think the spending priorities of the government should be changed in order to reduce economic inequality? Beyond the suggestions in the text, can you think of any other ways that government spending priorities could be changed?

Notes

- ¹ Saez, 2016.
- ² Dabla-Norris et al., 2015.
- ³ Dickman et al., 2017.
- ⁴ Data from the United Nations Development Programme, Human Development Reports database.
- ⁵ Reardon, 2012.
- ⁶ World Economic Forum, 2016.
- ⁷ IGM Forum, 2020.
- ⁸ Zeballos-Roig, 2020.
- ⁹ US BLS, 2019.
- ¹⁰ US BLS, 2020a.
- ¹¹ US BLS, 2020b.
- ¹² Pilkington, 2020.
- ¹³ Ostry, et al., 2020.
- ¹⁴ Gerszon-Mahler, et al., 2020.
- ¹⁵ Ostry, et al., 2020.
- ¹⁶ Godwin and Tokunbor, 2016.
- ¹⁷ Vidal, 2013.
- ¹⁸ Burke et al., 2015.
- ¹⁹ Anonymous, 2014.
- ²⁰ Brandmeir et al., 2016.
- ²¹ Saez and Zucman, 2016.
- ²² Norton and Ariely. 2011.
- ²³ Note that the “actual” distribution of wealth in Figure 8 differs somewhat from the distribution given in Figure 7—the two figures rely upon different data sources and apply to different years.
- ²⁴ Norton and Ariely, 2011, p. 12.
- ²⁵ Ibid.
- ²⁶ Note that the categories presented in Figures 6 and 9 slightly differ, as the data come from two different U.S. Census Bureau reports.
- ²⁷ Bengali and Daly, 2013.
- ²⁸ The Pew Charitable Trusts and the Russell Sage Foundation, 2015, p. 5.
- ²⁹ Carr and Wiemers, 2016.
- ³⁰ Chetty et al., 2017.
- ³¹ Ibid, p. 9.
- ³² Quillian et al., 2017.
- ³³ Fryer et al., 2013.
- ³⁴ Wilson and Rodgers, 2016.
- ³⁵ Brown and Patten, 2017.
- ³⁶ Blau and Kahn, 2016.
- ³⁷ Oyedele, 2016.
- ³⁸ World Economic Forum, 2016.
- ³⁹ Pew Research Center, 2015.
- ⁴⁰ Pew Research Center, October 2016. Note that annual earning is expressed in 2014 dollars.
- ⁴¹ BLS News Release, October 2017.
- ⁴² Porter, 2017.
- ⁴³ BLS News Release, October 2017.
- ⁴⁴ Neumark et al., 2015.
- ⁴⁵ Koenig et al., 2015.
- ⁴⁶ Kadlec, 2016
- ⁴⁷ U.S. Census, 2018.
- ⁴⁸ CEA, 2016.
- ⁴⁹ Pew Research, October 2016.
- ⁵⁰ Ibid.

- ⁵¹ CEA, 2016.
- ⁵² All Gini coefficients from the CIA World Factbook.
- ⁵³ OECD, 2011.
- ⁵⁴ Dabla-Norris et al., 2015.
- ⁵⁵ Vieira, 2012.
- ⁵⁶ <http://reports.weforum.org/outlook-global-agenda-2015/top-10-trends-of-2015/1-deepening-income-inequality/>.
- ⁵⁷ Brandmeir et al., 2016.
- ⁵⁸ Corak, 2016.
- ⁵⁹ OECD, 2015.
- ⁶⁰ Hellebrandt and Mauro, 2015.
- ⁶¹ Lakner and Milanovic, 2015.
- ⁶² Darvas, 2016.
- ⁶³ Darvas, 2019.
- ⁶⁴ Deaton, 2018.
- ⁶⁵ <http://povertydata.worldbank.org/poverty/country/LSO>.
- ⁶⁶ Absolute poverty estimate from the World Bank (<http://www.worldbank.org/en/topic/poverty/overview>). High-income estimate from the Global Rich List (<http://www.globalrichlist.com/>).
- ⁶⁷ <http://www.globalrichlist.com/>.
- ⁶⁸ Median wage data from the U.S. Bureau of Labor Statistics, Economic News Release, Table 1. Median usual weekly earnings of full-time wage and salary workers by sex, quarterly averages, seasonally adjusted, fourth quarter 2019.
- ⁶⁹ See Milanovic, 2015.
- ⁷⁰ Kaufman, 2015.
- ⁷¹ Anonymous, 2012.
- ⁷² Moran, 2005.
- ⁷³ Moran, 2005; Wade, 2011.
- ⁷⁴ Kanbur et al., 2017.
- ⁷⁵ Greenwood et al., 2014.
- ⁷⁶ Olson, 1984.
- ⁷⁷ IMF, 2017.
- ⁷⁸ Federal Reserve Bank of St. Louis online database, <https://fred.stlouisfed.org/series/LES1252881600Q>.
- ⁷⁹ Federal Reserve Bank of St. Louis online database, <https://fred.stlouisfed.org/series/A939RX0Q048SBEA>.
- ⁸⁰ Krugman, 2008.
- ⁸¹ Keller and Olney, 2017.
- ⁸² Pavcnik, 2017.
- ⁸³ OECD, 2015 (c).
- ⁸⁴ Pavcnik, 2011.
- ⁸⁵ Pavcnik, 2011.
- ⁸⁶ Rotman, 2014.
- ⁸⁷ Emerging markets include Brazil, Chile, China, India, Indonesia, Korea, Mexico, Philippines, Russia, South Africa, Thailand, and Turkey.
- ⁸⁸ U.S. Bureau of Labor Statistics, 2017b.
- ⁸⁹ OECD online statistics, trade union density.
- ⁹⁰ Jaumotte and Buitron, 2015.
- ⁹¹ *NACo*, 2017.
- ⁹² Alderman, 2017.
- ⁹³ Tax Policy Center, 2017.
- ⁹⁴ Piketty and Saez, 2007.
- ⁹⁵ Dabla-Norris et al., 2015.
- ⁹⁶ Obst, 2013.
- ⁹⁷ Schmitt, 2009, p. 3-4.
- ⁹⁸ Santiago et al., 2011.
- ⁹⁹ Wilkinson and Pickett, 2009.
- ¹⁰⁰ Sanandaji et al., 2010.
- ¹⁰¹ Deaton, 2003.
- ¹⁰² Ostry et al., 2014.

- ¹⁰³ Ibid, p. 25.
- ¹⁰⁴ Ibid, p. 26.
- ¹⁰⁵ Gilens, 2012.
- ¹⁰⁶ Ibid, p. 1.
- ¹⁰⁷ Piketty and Saez, 2007.
- ¹⁰⁸ Feenberg et al., 2017.
- ¹⁰⁹ OECD, 2008.
- ¹¹⁰ Joumard et al., 2012.
- ¹¹¹ OECD, 2011.
- ¹¹² Autor et al., 2016.
- ¹¹³ OECD, 2012.
- ¹¹⁴ Neumark, 2014.
- ¹¹⁵ Harris and Kearney, 2014.
- ¹¹⁶ Cooper, 2017.
- ¹¹⁷ See <http://worksite.actu.org.au/youth-entry-level-wages/>.
- ¹¹⁸ Breen and Chung, 2015.
- ¹¹⁹ Hershbein et al., 2015.
- ¹²⁰ Jaumotte and Buitron, 2015.
- ¹²¹ Checchi and van de Werfhorst, 2014.
- ¹²² Haarmann and Haarmann, 2014.
- ¹²³ Reuters, 2019. Data on average unemployment benefits is from the Finnish Social Security (Kela) website (www.kela.fi).
- ¹²⁴ Goodman, 2017.
- ¹²⁵ Jaumotte and Buitron, 2015.
- ¹²⁶ Matthews, 2012.
- ¹²⁷ OECD, 2012.
- ¹²⁸ Ambrosino, 2016.
- ¹²⁹ See <https://projects.propublica.org/graphics/temps-around-the-world>.
- ¹³⁰ Ravallion, 2014.
- ¹³¹ UNDP, 2013.
- ¹³² Lin and Yun, 2016.
- ¹³³ Shimeles, 2016.
- ¹³⁴ See <http://www.worldbank.org/en/news/opinion/2013/11/04/bolsa-familia-Brazil-quiet-revolution>.
- ¹³⁵ Hall, 2014.
- ¹³⁶ OECD, 2015b.