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**National Economic Education Delegation**

**Inequality Narrative**

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Slides:

1. Opening slide

Income (and wealth) inequality is becoming an important topic of debate in policy circles. It is also a significant issue outside of policy circles: witness the Occupy Movement which began earlier this decade. The movement is largely a response to growing inequality and the perception of a high concentration of political power among the wealthy, the 1%.

1. National Economic Education Delegation
	1. Brief discussion of what NEED is and NEED does
		1. 240 delegates, one in each state
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	2. Use our judgement for what should be said
2. Who Are We?
3. Where Are We?
4. Credits and Disclaimer
5. **Outline: Income Inequality**

Economic inequality seldom ranks highly on the list of concerns among Americans. Fewer than 5% of Americans list it as the primary issue facing the country. This is not surprising as it is not a frequently discussed issue. It has had its moments, most recently the Occupy movement of 2011. The economy in general usually gets top billing in terms of importance, but even as that issue wanes, none of the importance goes to inequality.

Inequality is an important issue and has implications for the economy in general. I’m very pleased to be here today to talk about this issue.

1. **Outline: Income Inequality**

This presentation will define income inequality and talk a bit about its measurement. How do we know that it’s increasing? What are the likely underlying causes of increasing income inequality? This will be followed by a discussion of whether or not an increase in income inequality matters. That is, is there a problem? If so, what can be done about it?

This talk may be a little disappointing because it will not give you specific answers to these questions. The problem with economics is that it can only take you so far. An economic analysis will not necessarily take you to a single policy solution when and if a problem is indicated.

So, in an analysis of income inequality, there may be not concrete evidence that the current level of income inequality is a problem. One side may argue that concentrating income in the hands of the few will drive the economy forward. That is, that investment will drive economic growth that will benefit all. Another side may argue that concentrating income in the hands of the few will reduce consumption, slowing economic growth; in this view, a million dollars in the hands of a large number of low-income families will be more likely to be spent (thereby creating jobs) than a million dollars given to Bill Gates or Warren Buffett.

Getting to a particular policy prescription, including taking no action at all, is dependent on a set of values, ethics, morals, and sometimes unsubstantiated beliefs about how the economy works.

Presentations like this one will help you to understand the issue and what we know about it. If you determine there is a problem, it will guide you in how to think about a policy solution.

1. **A Definition of Income Inequality**

There are a couple of ways to think about economic inequality. First, we consider the extent to which income distribution deviates from complete equality (where every household has the same amount of income per person). Another way to view income inequality is simply to look at it as the dispersion of income throughout the economy. It may seem like the first consideration presupposes that complete income equality is the desirable outcome, but that is not the assumption of economists. (In fact, it is likely not desirable.) The second description is more clearly agnostic about the optimal level of inequality.

Let’s take a minute and think about what this means. Conceptually, suppose we take 100 people (or all the people in this room, if there are enough of them) and line them up from lowest income to highest income. Lowest on that side (point to the left) and highest on that side (point to the right). Measures of inequality are meant to express how evenly incomes are.

Suppose everybody in in this line had the same income. That’s complete equality. Suppose instead that the person on the right has all of the income. That’s complete inequality.

Every economy is somewhere in between, with incomes gradually increasing from this side to that side. How quickly or evenly it increases defines the distribution of income.

1. Different ways of Thinking About Inequality

I’ve been talking about inequality in terms of just income. There are generally three different ways that researchers analyze inequality. The first is the most commonly discussed: Income Inequality. Income encompasses wages as well as interest and capital gains accruing from investments. This is the first metric that we will consider and is complicated by government taxes and transfers. These taxes and transfers can either reduce or exacerbate income inequality.

Think of these taxes and transfers as generally taking money from the high income side of the distribution and redistributing it to people at the low end of the distribution. What does this do to the distribution of income? It makes things more even. We’ll talk about just how much it does this. Not all of the funds taken in taxes are redistributed. Most are used for the military, roads, education, and a wide variety of government services.

The second measure is also frequently considered: wealth inequality. This measure asks about the relative concentration of the stock of wealth (homes, stocks, bonds, ownership of companies, and other investments) throughout the economy.

Finally, consumption inequality is another metric that is being researched. This measure asks the question: at the end of the day, we care most about how much people consume, so has the disparity in consumption between the rich and less rich increased?

Of course, all three of these metrics are tied to one another. It is unlikely, though not impossible, that an individual or a household will have significant wealth without having had significant income. It is unlikely that a household will consume lots of goods and services if they don’t have either high income or high wealth.

We will address all three of these metrics. Let’s look first at a measure of income inequality.

1. **Different ways of thinking about inequality**

While it is important to think about inequality generally, it can also be useful to analyze inequality between groups. Are there differences across groups? Are outcomes different base on group characteristics? Some of the most studied group differences are to do with race and gender.

1. **National Trends in Income Inequality**

One way of looking at income inequality is to observe the share of all income in the United States that goes to the richest 10% of households. The more income that accrues to these households, the less there is available to the rest of the households in the country.

There are other measures that will be discussed, but most show a similar trend of concentration of income in the hands of the richest households.

At the height of the Roaring Twenties, the share of total income in the United States that went to the top 10% of households approached 50%.[[1]](#footnote-1) It then declined significantly following Black Tuesday, October 29, 1929, the day that marks the Great Crash of the stock market and the beginnings of the Great Depression. Shares remained relatively steady through the onset of World War II. At this point, the earnings of the top 10% relative to the rest of the economy declined precipitously. For nearly the next 40 years, through the late 1970s, the share of income going to the top declined slowly.

Changes in the late 1970s and early 1980s sent the incomes of the top 10% to heights not seen in the previous century. In 2012, the share going to the top 10% exceeded 50% of all income generated in the United States. It topped 50% again in the last year of data, 2015, where it now stands at 50.5%.

During this 40-year period, there were, of course, periodic reversals of the trend. Once such reversal was in the early part of this century, following the bursting of the stock market bubble, also known as the dot-com bubble. A second reversal occurred later that decade, in 2008-2010, following the bursting of the housing bubble.

Income inequality currently stands at unprecedented levels in the modern economy.

Income inequality is also evident when we compare incomes of the top one percent with the rest of the population. Between 1983 and 2017, average real income (which doesn’t include capital gains) of the top one percent increased from $383,440 to $1,089,577, while the average income for the bottom 90% increased from $32,876 to $34,407. When we calculate this as a ratio we find that income of the top one percent increased over that time from 12 times higher than the average income of the bottom 90% to 32, the highest it’s been since 1928, when the same ratio was 33.

Figure A1: Average Real Income (without capital gains) of bottom 99% and top 1% in the United States (Piketty & Saez, TabFig2015prel.xls)

1. **Recent Facts on Income Inequality[[2]](#footnote-2)**

Although overall income inequality increased over the last 40 years, it is important to understand what happened within the entire distribution. In a period of growing inequality, one might be primarily concerned with the middle class, the decline of which is a common source of discussion, or with those at the lower end, society’s least well off.

Trends in inequality were not consistent throughout this period. In the pre-1990 period, the declines in incomes largely occurred in the lower-income groups. In the subsequent decades, middle-income groups also experienced separation from the higher-income categories.

To observe that inequality grew at the same time that the economy started growing more slowly is not to intimate causation. Instead, it is to suggest that the implications of rising inequality for those at the lower end of the income distribution are more significant than they would be if rising inequality occurred at a time when income growth was accelerating. With slowing economic growth, the shrinking share of the pie received in the lower parts of the income distribution is going to be smaller still because economic growth is less likely to compensate for the growing inequality.

The converse is also true: the growing share of income received by the wealthy is not growing as fast as it would with faster economic growth. This is, however, of less concern than the declining relative incomes of those at the bottom.

1. **The Abrupt Increase in Income Inequality**

As we saw in a previous slide, increasing income inequality has its origins in the 1970s. In the decades that followed, incomes of those at the top, reflected here as the 95th percentile, the richest 5% of households – the 5 people at the high end of the distribution that we talked about, increased significantly faster than did the median income or the incomes of those at the bottom.[[3]](#footnote-3)

The lines here indicate the growth in income over time relative to what it was in 1973. For those at the top, incomes are 75% higher, close to double, while the median household income is just 21% higher.

For those at the bottom end, the 20% of households that are the poorest, incomes grew by just 10%. This is all adjusted for inflation, so incomes did go up at all levels, but the increase wasn’t distributed evenly.

1. **Most of the Action Is at the Very Top[[4]](#footnote-4)**

I mentioned earlier that there was a difference between the income distribution before taxes and transfers and the distribution after taxes and transfers.

The lines in this graph illustrate the percentage increase in household income after taxes since 1979. The red line in the graph—indicating changes in household income in the richest 1% of households (the ONE person at the top of our 100 person distribution) —really separates itself from the other lines. Incomes for these households increased by 228%. For the rest of the top 20%, incomes increased by 73%, which was still more than for the middle and the bottom, 42% and 69%, respectively.

For the top 1%, their incomes were up by more than 300% just before the Great Recession. Recalling the previous graph, it’s clear that income gains really are concentrated very highly among the richest households in the United States.

To give you an idea of just how highly concentrated this income is, in 2014, there were 123 million households in the United States. So, there were 1.23 million households in the top 1%.

If you look at the top 400 households, they constitute just .03%, or three one-hundredths of one percent. In 2014, these 400 households had incomes that totaled $127 billion, or $318 million for each household.

Their cumulative income accounts for more than 1.3% of all income in the United States in that year.[[5]](#footnote-5) That is a significant increase from as recently as 1992, when it was just 0.5% of U.S. income.

Bottom line: in 2014, 0.03% of all households receive 1.3% of all income in the United States. This would be easy to digest if we were discussing wealth and these households held that share of wealth. However, the concentration of wealth is far higher than it is for income.

1. **Most of the Action Is at the Very Top[[6]](#footnote-6)**

An alternative/supplement to 12.

One thing to note is that even post-tax, the very top has experienced greater income growth than it did pre-tax! As did all of the other groups on the chart as well.

1. **Most of the Action Is at the Very Top[[7]](#footnote-7)**

It is important to note that it wasn’t just an acceleration of income growth at the top. That acceleration was in fact occurring while income growth at the bottom was slowing considerably.

In 1980, income growth was inversely correlated with income levels. That is, low-income households experienced the most rapid income growth. High income households experienced the slowest growth.

By 2014, this pattern had completely reversed itself, with high-income households experiencing VERY rapid income growth while those at the bottom saw their growth stagnate.

1. **Income Growth Patterns Have Reversed!**

It is often argued that so what if high income households are getting richer relative to the rest. Well, this graphic suggests that income growth at the top has come at the expense of income growth at the bottom.

1. **The Gini Coefficient**

The Gini coefficient is a commonly used measure of inequality, but what is it exactly? The Gini coefficient, as discussed earlier, is a measure that runs from zero (equality) to 100 (complete inequality). (The scale is sometimes reported as running from 0 to 1.) On a graph with the proportion or share of income on the vertical axis and the proportion or share of the population on the horizontal axis, where the population is lined up from the lowest to highest income (or wealth), the Gini coefficient is calculated as the share of the triangle beneath the 45-degree line, representing equality, and the other two legs of the triangle below that line. The greater the area “A,” the higher the inequality. A larger A indicates that a relatively higher share of income (or wealth) is possessed by richer households than it would if the area were smaller. The line delineating A is just the line that maps out the share of income (or wealth) possessed by the poorest, or bottom, X% of the households.

Because the households are lined up from poorest to richest on the horizontal axis, it will always be the case that the line between A and B will be below the 45% line.

The way to think about the Gini Coefficient is to interpret it is as how far between perfect inequality and complete inequality are we. So, a Gini of 50 roughly indicates that income is distributed as roughly halfway between the two. 33 is roughly one third of the way.

It is important to note that there is no clear consensus on exactly what is the right level of the Gini. Should it be 25, mostly equal, or 75, mostly unequal. We will talk more about this later, but although it is easy to say that 75 seems like a lot of inequality, there isn’t appropriate evidence to say that it is, from an economic perspective.

1. **Forming the GINI Coefficient**

The calculation of the Gini curve can be seen with data from 2015. You could imagine doing this with an economy of five households, lining them up from poorest to richest. Instead, we will do it with even groupings of households in the economy. The Gini is normally calculated with data on individual households, of which there were 124.6 million in 2015.

The graph on the left depicts the shares of total income that are received by the different quintiles of households. Quintiles just represent one-fifth of all households, where the lowest quintile contains the poorest one-fifth, or 20%, of all households and the highest, or top, quintile contains the richest one-fifth of all households.

The graph on the right has the same income shares as on the left, but they are stacked on top of each other. The first bar is the same as on the left. The second bar is the second quintile with the height of the first quintile added on top. These bars represent the cumulative shares of income held by the quintiles. The first three quintiles receive about 25% of all income and the first four about 50%. All five quintiles, of course, receive 100% of all income.

The Gini is then calculated as the share of the triangle between the 45-degree line and the bottom and right-hand side of the graph that is above the curve that connects the tops of the bars. As more income is transferred to higher-income households, this curve gets pushed down toward the lower right-hand corner of the graph and the Gini coefficient gets bigger.

1. **Income Share Changes: 1970-2017**

A changing Gini coefficient can be illustrated using data for the United States between 1970 and 2017. During this time, the share of income going to each of the lower quintiles fell and the share going to the 5th or top quintile rose: from 43.3% to 51.1%. You can see how the line connecting the tops of the bars would move further away from the 45-degree line and the Gini coefficient would increase in value.

1. **Quintile Income Cutoffs**

<Note: I often get asked what the quintile cutoffs are. Hence this slide.>

Although the income shares have changed at different levels of income, it is true that absolute levels of income, in inflation adjusted terms have also grow. At the 20th percentile, incomes grew from $23,000 to $26,000. This is an increase of a little over 10%. At the same time, the income cutoff for the 75% percentile, incomes grew from $94,000 to $130,000. An increase of a little more than a third. The cutoff for the top 5%, the 95th percentile, increased from $152,000 to $249,000 – an increase of nearly two-thirds (64%).

1. **Income Changes from Growing Inequality**

The changes in the previous graph suggest that all households outside of the top decile were losing income during the time period. This isn’t necessarily so. All households could be gaining income, but the richest might be gaining so much more than the rest that all other quintiles lose share, or their piece, of a growing pie. Everybody might be getting a larger piece, but a smaller part of a larger pie.

But what is clear is that all households in the lower four quintiles received less than they would have had their shares remained the same. Evidence on this front is presented in a study of income changes between 1979 and 2005. The study asked the question: how well off are families in each quintile relative to where they would have been if their share of the pie was the same in 2005 as it was in 1979.[[8]](#footnote-8)

It turns out that the average household in all but the top 10% of households lost income. The bottom 90% all lost income to the top 10%. The changing nature of income during the period transferred $673 billion dollars from lower-income households to higher-income households. Twenty percent of this amount, one-fifth, came from households in the lowest quintile. The hardest hit, in dollar terms, was the middle quintile, the middle class.

1. **How Has Inequality Influenced Incomes?**

<note: there are three graphs here. Each successive graph adds a set of bars.>

Another way of illustrating what is in slide 18.

From: Price, Carter C. and Kathryn A. Edwards, “Trends in Income From 1975 to 2018”, Rand, Sept. 2020, Table 2.a

This first graph shows the percentile cutoffs in 2018. They increase dramatically in the top 10% and especially in the top 1%.

<click to add 1978 cutoffs>

First, we compare the income cutoffs for 2018 (maroon) with those in 1978. A couple of observations are worth making:

1. Incomes at all levels have increased considerably. This is a natural outcome of a growing economy.
2. Incomes at the highest level have grown dramatically in absolute terms, but also in percentage terms. The income cutoffs at high levels, 99, and mean for the top 1% have increased by several multiples, whereas at all other levels, the increases are less than 100%.

<click to add counterfactual cutoffs>

Here, we have added in the change in incomes that might have been expected had there been NO increase in inequality between 1978 and 2018. This roughly corresponds to incomes at all levels of the income distribution growing at the same rate – shared prosperity.

It is still true that in absolute terms, incomes at the top are growing much faster than elsewhere in the distribution (green vs blue), but the percentage change is roughly same.

The observations from this comparison (green vs blue) are as follows:

1. Incomes grow at all levels.
2. Incomes grow more in this case for everybody below the 95th percentile than they did in actuality, with the increase in income inequality that was observed over those 30 years.
3. **Growth Has Been Primarily at the Very Top**

The previous slide indicated the extent to which income has been redistributed as a result of increases in the income distribution. What the image made clear is that the gains were primarily at the very top of the income distribution.

Lest we give the impression that gains in income were only at the very top, this graph illustrates how quickly household incomes grew between 1979 and 2013. Over the course of this period, incomes at all levels grew, but they grew more than 10 times faster for those in the top 1% than they did for those in the bottom 80% of the income distribution.

The economy experienced growth throughout this period and incomes at all levels grew as well, but households at the very top accumulated the vast majority of the income gains. Average household income of those at the top grew in inflation-adjusted terms from $546,000 in 1979 to $1.6 million in 2013. They actually peaked at $2.1 million in 2007, just before the Great Recession.[[9]](#footnote-9)

If the data were available, we would find that the income gains for the very, very top of the income distribution were even greater. If we look at the top 400 households, their share of adjusted gross income in the United States increased from 0.52% in 1992 to 1.3% in 2014, the last year for which data are available. They represent just 0.0003% of households (three ten -thousandths of one percent), and they received 1.3% of all income. Their income share is 4,830 times their share of households.[[10]](#footnote-10)

The story is not one of the rich getting richer, though they certainly are, it is one of the super-rich getting much richer.

The graph indicates both pre-tax and post-tax rates of income growth. All groups grow faster in terms of after-tax income, which is interesting. Transfers benefit those in lower-income groups (at the bottom two quintiles) and tend to reduce income for those in higher-income groups (in the top three quintiles).

That pre-tax incomes grow faster for all groups indicates that despite the growing benefits that accrue to the bottom 40% during this period (post-tax incomes are rising faster than pre-tax incomes) the burden on the higher-income groups was lower in 2013 than it was in 1979. Their pre-tax incomes grew so fast that they were able to fund increased benefits for lower-income groups and experience increased income gains at the same time.

1. **People of Color Are Scarce at Top and Overrepresented at Bottom**

It is important to think briefly about the racial implications of the growth in inequality. In particular, people of color, Black and Latino in the graph, make up a little over 30% of the population of the United States – bottom bar, blue segment.

At the same time, they make up about 45% of those who would benefit from an increase in the minimum wage to $15/hour, so they are significantly overrepresented at the bottom of the income distribution.

At the other end, they make up less than 5% of Fortune 500 CEOs. Given the trends in CEO pay since about 1990, as we shall see later, these 500 CEOs are all in the top 1%, and perhaps .1% of households. Very few are people of color.

As a consequence, the changes in the income distribution that we have been discussing have been much less advantageous to people of color than they have been to White Americans. The trend in inequality has also been disequalizing along racial lines.

1. **Disappearing Middle Class**

Coinciding with an increase in inequality are concerns about the middle class. The middle class is a major engine of growth in the United States and its disappearance is likely to have long-term implications for growth.

Here, the metric for indicating middle class status is whether or not a household has an income between 2/3 and twice the median household income among households of the same size. So 4 person households are compared with only other 4 person households, similarly for 2, 3, and 5 person households – they are only compared with comparably sized households.

The hollowing of the American middle class has proceeded steadily for more than four decades. Since 1971, each decade has ended with a smaller share of adults living in middle-income households than at the beginning of the decade, and no single decade stands out as having triggered or hastened the decline in the middle.

1. **Comparing Trends in Income Inequality with Trends in Wealth Inequality**

<Note: for information on the state and county in which you are presenting, see: [www.needelegation.org/LocalGraphs](http://www.needelegation.org/LocalGraphs) and drill down to the particular county.>

This graph illustrates trends in both income and wealth inequality. The measure of income inequality is not the same as on the previous graph and the measure of wealth inequality is yet another statistic. A Gini or share measure is less appropriate when the degree of concentration is as high as it is for wealth.

The share of income accruing to the richest 10% of households is just one measure of inequality. The Gini coefficient is a standard measure of income inequality, depicted in the graph, that reflects the entire distribution of income, including shares in the middle and shares at the bottom. The Gini coefficient ranges between 0 and 100 (some report it as between 0 and 1), where zero indicates that each household receives the same income as every other household, and one indicates that all income accrues to the richest household; thus, the Gini coefficient ranges from complete equality to extreme inequality.

Between the late 1960s and 2016, the Gini coefficient increased by approximately 21%, just over one-fifth, from 39.7 to 48.1. The number for 2016 (48.1) represents the highest level of the Gini coefficient reported for the United States.[[11]](#footnote-11)

Also remarkable are increases in wealth inequality in the United States. Wealth is different from income in that it reflects the total financial holdings of households rather than the flow of money into a household. Wealth includes stocks, bonds, homes, cars, businesses, retirement savings, and the ownership of other financial instruments.

Data on wealth inequality are not as readily available as they are for income inequality. The primary source of these data is the Survey of Consumer Finances, conducted by the Federal Reserve Board. Data are available for 1962 and for every three years between 1979 and 2016.

The data indicate a slow increase in wealth inequality between 1962 and 1979, with a decline in the early 1990s. Between 1995 and 2016, however, wealth inequality increased dramatically. As measured by the ratio of the average wealth in the richest 10% of households to the median wealth, it increased from 19.3 in 1962 (and 1995) to 46.5 in 2016. Almost all of this increase occurred between 1995 and 2016. Interesting to note is that neither the bursting of the dot-com bubble nor the popping of the housing bubble reduced wealth inequality. The bursting of both of these bubbles slowed the inexorable increase in wealth inequality, but they failed to reverse it even temporarily, as they did for income inequality.

1. **Contemporary Comparison of Income and Wealth Inequality**

The statistics on the previous slide suggest that incomes are distributed less equally than wealth. This is merely an artifact of the statistics used to describe inequality. Wealth inequality is in fact much greater than income inequality. The richest 1% of households in the United States control 39% of all wealth, while the highest income households, also 1%, receive 24% of all income.

The richest 10% of households control 78% of all wealth, while the bottom 90% control just 23%. By contrast, the bottom 90% of households receive approximately 50% of all income.[[12]](#footnote-12)

1. **Wealth Concentration Has Been Rising**

This graph is similar to the very first graph that we looked at, with the exception that it pertains to wealth rather than income. It shows the share of all wealth held by the top 5$% and the top 1% over time – since before 1920. There are several things worthy of note here:

1. The top 0.5% controlled nearly 1/3 of all wealth as of 2012. This share has likely increased in the years since.
2. As with income inequality, there was an inflection point just before 1980. That is, wealth inequality had been in decline prior to 1980, but increased significantly and rapidly in the subsequent years.
3. **Wealth is More and More Concentrated**

Here is another illustration just how much wealth inequality has changed over the years. The graph depicts average wealth in each percentile for 1963 and for 2016. As you move from left to right on the graph, you are examining wealth in households with more and more wealth. Several observations are worth highlighting:

1. Wealth has increased dramatically at the top of the distribution.
	1. Wealth is inflation adjusted, so we can make comparisons across years.
	2. The top percentile, the richest 1% of households, experienced a 7-fold increase in wealth over the 53 year period.
2. Wealth at the bottom decreased. If you look very closely, you can see that wealth has fallen negative for those in the lowest percentiles, at the right of the graph.
3. **Median Net Worth, by Household Income Percentile**

NEED as another talk that focuses on the Black-White wealth gap in the United States. It focuses on the fact that both mean and median wealth of White households was between 7 and 8 times the wealth of Black households in 2019. This gap is anticipated to increase significantly in the wake of the pandemic.

The image here provides an indication of just how big the gap is. At every level of the income distribution, White wealth is significantly bigger than Black wealth. For the top 10%, it is 5 times higher for White households than for Black.

Our other talk goes into great detail about how the gap is not explained by any or all of income, education, savings rates, or other things that are important determinants of wealth creation. In other words, the story is very complicated and nuanced.

1. **A Third Measure of Inequality: Consumption**

Another way of looking at inequality is through relative levels of consumption. Ultimately, it is consumption that economics is concerned with and not how much income you make. Looking at consumption inequality, between the amount at the 90th percentile relative to the amount at the 10th percentile, it appears as though the relative amounts spent on consumption have not changed. It is true that for every additional dollar that is spent by low-income households, higher-income households spend roughly 3.5 times more, so absolute levels of consumption are not close. If consumption increases by $1 among low-income households, consumption among higher-income households increases by $3.5 to maintain the ratio.

These results are for a small set of purchases. It does not include consumption of leisure, whether it be more vacations while still working, or through the consumption of wealth, which ultimately pays for early retirement (i.e., leisure).

There are studies that show that consumption inequality is decreasing, increasing, or constant, such as in this graph. The data are therefore inconclusive. This is in part because the accuracy of consumption data is very difficult to ascertain. It is also not entirely comprehensive.

It is also true that the income data generally used are insufficient to provide exact measures. Often financial transfers through either the tax code or other government programs are not accounted for in the income data.

1. **What about Consumption Inequality?**

At some level, we don’t really care about income inequality. It is arguably more important to measure how much people are consuming and whether or not there is growing disparity in the ability of people in society to consume. After all, changes in income can be transitory – job losses, sudden unexpected capital gains. These changes may cause measured income inequality to change, but may not lead to a change in consumption patterns.

It may not lead to consumption changes because people tend to consume out of what they believe to be their lifetime earnings capacity. In other words, they will find ways to smooth out their consumption when income fluctuates unexpectedly. They can borrow against their home, from family members, or simply draw down savings. So, although we are in an era of significantly increasing income inequality. It may well be that perceptions of lifetime income have not changed and consumption inequality may not increase accordingly.

At the same time, it is extremely difficult to measure consumption inequality. There are many surveys that are designed to measure income, and these surveys arguably do a pretty good job. There are relatively few surveys that measure consumption patterns and none of these surveys were developed with the express purpose of measuring consumption with an eye towards making comparisons across groups of people.

Several shortcomings of these surveys include a failure to cover all expenditure categories and a inability to adequately collect information from all levels of income; in particular, from high income individuals. Another problem is the difficulty in measuring the quality of goods and services purchases versus the quantity – some surveys focus on spending while others focus on quantity. If there are changes in demand for quality at different levels of income, it is possible that these changes will be omitted in quantity-based surveys.

So, what do we think we know about consumption inequality? At this point, there is no consensus, but it appears as though consumption inequality is also increasing.

1. **Growing Evidence: Consumption Inequality**

Early research on consumption inequality found that although income and wealth inequality have been increasing, consumption inequality may well not have been increasing.

This set off a bit of a firestorm among inequality researchers who found this extremely difficult to believe. As more and more studies were produced, each attempting to correct for perceived inadequacies in the studies that show no increase in inequality, it has become evident that consumption inequality may well be increasing as well.

1. **Case Study: Economic Research**

At this point, the profession is in a place where there is no complete consensus on consumption inequality, whether it is remaining constant or increasing.

At this point, this area of research, as are many areas of economic research, is still in search mode. Searching for clear evidence of one result or another.

This is a very common aspect of economic research, and of research more generally. An early result is published that seems to contradict conventional wisdom. There is then a flurry of research all of which probes the data and basic assumptions that underpin the early result.

Some of these studies will confirm the early result and some will dispute it. Over time, a general sense of the issue will evolve as more and more research supports one result over another.

There is no guarantee that a consensus will arise. Sometimes the necessary data do not exist to convincingly pin down one result or the other. Instead, it is merely a preponderance of the evidence that will drive our understand.

It’s important to recognize that this phenomena is not unique to economics. The same type of process occurs in almost all disciplines, from food research (Are eggs good or bad for you?) to physics (there remains no unifying theory of our physical environment).

As with so many issues, the study of consumption inequality is confounded by both the perfect set of data as well as the perfect toolbox or set of methods with which to evaluate it.

1. **Summary: Consumption Inequality**

As the graph suggests, there is mounting evidence that consumption inequality is also increasing, there is no concrete consensus among economists. Will a consensus be reached? It’s unclear.

1. **Where Does Inequality Come from?**

We will address the issue of why this redistribution happened, but first, let’s explore the various sources of inequality. We can then talk about which, if any, of these sources might have caused the redistribution that we just mentioned.

Variation in inequality in a country comes from a variety of different sources, including structural changes, personal choices, and technical changes in how income is measured. Among structural changes are demographics (such as the age distribution), government policy, external forces (such as globalization and immigration), and technological change.

Demographics matter because income varies throughout the life cycle. Younger workers tend to earn less than do older workers, for example. Household composition also matters for the calculation of inequality. If marriage rates were to increase, without changing whether or not people work, inequality would be reduced. Take, for instance, a couple where one person works and the other does not. If they are two separate households, they contribute a household with some income and one with no income. Combine them into one household, and you have taken a zero-income household out of the economy. This would likely increase the share of income going to the bottom 20% of households, reducing income inequality.

1. **Government Policy and Inequality**

There are many government policies that affect income inequality. These include:

* Access to good education
	+ The more that people have access to a good education, and the more that they take advantage of that access, the more likely it is that their future incomes will be higher. This access affects educational attainment levels, which in turn affects the distribution of income. These changes likely affect income inequality, though we cannot be certain how.
* Competition policy
	+ Competition policy is the extent to which the government works to reduce market power. If there is one firm in a market, that firm has a lot of market power and is called a monopoly. As a generalization, monopolies tend to make far greater profits than do firms without market power. The more accommodating government policy is to the accumulation of market power, the greater is income inequality likely to be. This is true because monopolies transfer money from consumers to the owners of companies. As there are relatively few owners of most companies, market power tends to concentrate income in the hands of a few. As the owners of companies tend to be high-income individuals already, market power tends to concentrate income in the hands of the well off, which will raise income inequality.
* Labor protections
	+ Labor protections fall into two broad categories. The first is government policy. This includes things like the minimum wage or mandatory overtime payments.
		- These are programs that increase the cost of capital relative to labor, but there is little evidence that the minimum wage, in particular, has had a significant influence on employment levels among low-income workers.
	+ The second is unionization. The overall rate of unionization in an industry or in the economy more broadly can have an effect on labor’s share of total income. This share has been in decline for most of the last 30 years. Unionization has tended to primarily affect the wages of lower-income workers. Accordingly, lower rates of unionization may lead to lower incomes for low-income workers, increasing income inequality.
		- Unions serve the primary purpose of redistributing corporate profits. Businesses make profits and those profits accrue to labor or the owners of capital according to their relative bargaining power. In the absence of unions, labor has little in the way of bargaining power, and the profits accrue disproportionately to the capital. With unions, a greater portion of these profits accrue to labor.
		- This redistribution has the potential to shift production away from labor and toward capital in unionized industries, but it also has the effect of putting upward pressure on wages in the overall economy. This has the potential to reduce employment, but there is scant evidence that there is an overall impact on economy-wide employment.
* Government tax and transfer policies
	+ Income inequality can either be measured before or after tax and cash transfers occur. These measurements can produce different results. Comparing the measurement of inequality *before* tax and cash transfers occur with the measurement of inequality *after* tax and cash transfers occur reveals the extent to which tax and transfer policies in the country increase or reduce income inequality. As a general principal, tax and transfer policies have tended to reduce income inequality, taxing the rich at higher rates than the poor and transferring cash or services of some cash value to the poor.
1. **Tax and Transfer Programs and Inequality**

In the United States, taxes are progressive, and there are income supplement programs that help to increase the incomes and hence well-being of lower-income workers. A progressive tax system is one that taxes higher levels of income at higher rates. Income supplement programs include social security, the earned-income tax credit, and a variety of others.

From the graph, it is evident that these taxes and programs serve to increase the income of the poor, those households in both the lowest and second-lowest quintiles, and to reduce the incomes of those in the top three quintiles.[[13]](#footnote-13) The effect on the top quintile is significant. The green bars reflect the market income of households, including wages and salaries, capital gains, dividends, and other investment income. The purple bars reflect changes to that income that result from taxes and transfers. The lowest-income households are relatively lightly taxed and are the beneficiaries of many transfer programs, while the higher-income households are more heavily taxed and are much less likely to receive transfer payments.

As these policies raise incomes at the bottom and lower incomes at the top, they are clearly reducing after-tax income inequality relative to pre-tax income inequality. In 2014, the effect of the transfers and taxes included in the graph was to reduce the Gini coefficient from 52 to 44, or a 15.4% reduction in income inequality. These taxes and transfers are essentially reducing income inequality to levels last seen in the mid-1980s.[[14]](#footnote-14)

It is also possible that state and local taxes could influence income inequality. There does appear to be wide variation in the influence of state taxes on inequality.[[15]](#footnote-15) On average, state taxes slightly widen the national after-tax distribution, but some states, California and Oregon in particular, have tax codes that further reduce inequality beyond the influence of federal taxes and transfers.

1. **Taxes, Transfers, and Income: 2016**

This graph gives an impression of the impact of taxes and transfers on incomes in each of the 5 quintiles. A couple of things that are worthy of note:

1. Means tested transfers are very small.
2. Federal tax receipts are skewed heavily towards the top quintile, as is income, both before and after taxes.
3. **Tax and Transfer Programs: Income Shares**

Tax and transfer programs have had the effect of increasing income shares at the bottom of the income distribution. The lower 60% of households have all experienced an increase in their income share as a result of federal tax and transfer programs. The 4th quintile is left almost unchanged, while most of the reduction in income share is at the top.

1. **Tax and Transfer Programs: Income Shares**

Here is a glance at the distribution just for 2016. Clearly, tax and transfer programs have disproportionately benefited those in the bottom 80% of the distribution, with those in the bottom 20% benefiting the most.

1. **What About Tax Rates?**

Between 1992 and 2014, the average income of the 400 highest-income households increased by 310%, so it was four times larger in 2014 than in 1992—in real terms.[[16]](#footnote-16) Changes in statutory tax rates occur with some frequency, as does the source of income for these households. If income is heavily weighted toward dividends or capital gains, it may be taxed at a different rate than if it is wage and salary income.

Because of changes in the source of income and the statutory tax rates between 1992 and 2014, the average tax rate for these households fell by 12%. As recently as 2012, however, the average tax rate had fallen by 37% from its 1992 level. Tax policy, though it has the effect of reducing inequality by virtue of its progressive nature, has been changing in a way that lowers the taxes of the wealthiest families, offsetting some of the progressivity of the tax system and increasing inequality relative to what it would have been had the income been taxed at its average rate in 1992.

The progressivity of the U.S. federal tax system at the top of the income distribution has declined dramatically since the 1960s.[[17]](#footnote-17) This decline continued through the early 2000s.

1. **Tax Rates Over Time**

As mentioned, tax rates on the super-rich have come down recently. The top marginal tax rate has come down substantially, from 90% to just 37%. At the same time, however, it is worth noting that the income cutoff has come down as well.

At the same time, tax rates for the bottom have also come down, from about 20% to 10%.

1. **The Top Tax Rate and Income Cutoff**

It would be disingenuous to leave the previous graph without some further elaboration. Although the top marginal tax rate has come down significantly, so, too, has the income level at which the top tax rate kicks in.

Yes, the top marginal tax rate in 1950 was 90%, but only incomes above the equivalent of $4 million were taxed at that rate. By way of contrast, although the top tax rate today is 37%, it applies to incomes in excess of $600,000.

So, although much lower, the top marginal tax rate applies to much more income today than it did when it was 90% 60 years ago.

1. **Dramatically Less Progressivity in the Tax Code**

Note: There is probably some judicious use of this slide and the 3 slides that precede it. Using all of them is probably overkill.

Over the 50 years between 1961 and 2011, the average tax rate paid by the bottom 90 percent increased significantly, but more than 5 percentage points, or nearly 30%. At the same time, the average tax rate paid by the top 10% fell by almost as much, with the average tax rate of the top 1% falling by more nearly 20 percentage points, or by more than one-third.

The reasons for this change are because of increases in taxes that are inherently regressive, such as the social security tax and because of reductions in tax rates at the top.

Overall, the changes to the Federal tax structure have become increasingly less progressive.

1. **The Rich Really do Pay Lower Taxes**

Over the last 70 years, the tax rates being imposed on the top income households – factoring in state, local as well as federal taxes – has declined very significantly. At the same time tax rates at the bottom have been increasing, to the point where average tax rates are higher at the very bottom than at the very top.

This is a reflection of the taxes alone. The picture is different when transfers are taken into account – primarily because net tax rates at the bottom will go down significantly.

1. **Market Forces and Inequality**

The wages that we observe, and their contribution to increasing inequality are a result of the labor that shows up in the labor market and the demand for that labor. Both shift over time. Over the years, the proportion of the labor force that has a bachelor’s degree has been increasing, raising the supply of skilled labor relative to unskilled labor. Prime working aged men have been less inclined to participate in the labor over the last 50 years. These and other changes happen gradually on the labor supply side.

Changes on the demand side of the marketplace can happen much more quickly. Among these changes are:

* 1. Technology
		1. Over the last several decades, there has been a significant shift in technology towards that which reduces the demand for labor. Some of this is computers and some is robotics more specifically.
		2. This technological change can have a disproportionate impact on unskilled labor, as that type of labor is the most easily replaced by machines.
		3. This will exacerbate income inequality by reducing the wages of unskilled workers relative to skilled workers.
	2. Globalization
		1. Since the 1970s, the United States has become increasingly intertwined in global labor markets. This has happened through the importing of more goods from other countries, the outsourcing of parts of the production process to other countries, and increasingly in recent years through outsourcing services.
		2. Again, it is less skilled tasks that are most easily sent overseas, so the impact falls most significantly on low skilled workers, reducing their wages relative to skilled workers, increasing income inequality.
	3. Industry composition
		1. Other important changes happen simply through changes in the composition of the economy.
			1. Typewriters become obsolete
			2. Services are playing an increasing role in what people buy
				1. People eat out more
				2. More gardeners
			3. As some low-skilled services are outsourced, the proportion of services that are provided domestically may become increasingly of the skilled variety: professional services, accounting, engineering, legal, and so on.
		2. The implications of this type of change are not at all clear and depend on the nature of changes in the demand for goods.

There are also changes that are occurring in the relationship between labor and the companies that employ labor.

1. Unionization
	1. Labor unions are in the business of looking out for workers. This happens by negotiating higher wages for workers as well as lobbying the government for greater protections in the workplace.
		1. As will be discussed, labor union membership has been declining for decades, reducing union’s ability to get higher wages or greater protections
		2. This, again, can lead to greater income inequality as it likely transfers company profits to the owners from the workers. Owners are more often to be in the upper end of the income distribution than are workers.
2. Competition in labor markets
	1. Often, there are a small number of potential employers for a particular group of workers. Witness the non-poaching agreement between Silicon Valley firms. This can serve to, again, transfer profits from labor to owners, increasing income inequality.
3. **A Summary of the Sources of Income Inequality**

There are three broad categories of forces that ultimately determine the level of inequality in an economy. It’s important to keep these sources in mind when thinking about inequality and whether it is a problem, because an understanding of these sources will inform potential policy actions. It is also important to recognize that some of these determinants of inequality may well depend on or be influenced by the level of inequality.

Sources of Income Inequality:

1. Demographics and personal choices
	1. The characteristics of the labor force
		1. Is it young? Is it well educated? Is it well motivated?
		2. Education and motivation are influenced by inequality.
2. Market forces
	1. Regular and usual compensation
	2. Rewards for innovative ideas
	3. Rewards to education
3. Government Policy
	1. PREdistribution:
		1. Rules regarding executive pay
		2. Contracts
		3. Competition policy
	2. REdistribution:
		1. Tax and transfer programs and inequality
			1. Tax structure
			2. Social programs
4. **Labor Income Is Unhinged from Productivity**

Historically, average hourly compensation has tracked labor productivity reasonably closely. Labor productivity is an indication of how much labor produces on an hourly basis. It seems intuitive that these measures would track each other. However, this close link was severed in the early 1980s. Since that time, labor has continued to become more productive, but hourly compensation has lagged significantly behind.

Since 1982, hourly labor compensation increased by 39%. During the same time, labor productivity increased by nearly 99%. Productivity increased by nearly 60 percentage points more than did labor income.

The proceeds of these increases in productivity did not accrue to labor, so the diminishing compensation, relative to productivity, implies a declining share of income for labor.

Exactly why this disconnect is happening is not yet clear. However, there are a variety of potential explanations. We will have a look at each explanation and how it might contribute to the failure of compensation to keep up with productivity growth.

1. **Labor Income Gap Acceleration**

It turns out the gap between productivity growth has been accelerating in recent years. Between the first quarter of 2000 and 2016, the rate at which the gap increased doubled relative to the period between 1978 and 1999. This observation doesn’t necessarily help us explain why the gap exists and is growing, but it is another piece of the puzzle.

1. **Declining Unionization**

There are a variety of explanations for the declining incomes of labor relative to productivity, but it isn’t entirely clear which is correct. One possible explanation is the decline in unionization. In 1983, the percentage of wage and salary workers in the United States who were unionized was 20.1. The comparable figure for 2018 is much lower, at 10.5.[[18]](#footnote-18)

This average covers an enormous difference between unionization rates in the private sector versus the private sector. It remains the case that one-third (33.9%) of public sector workers – teachers, law enforcement, federal, state, and local government workers – are members of a union while just 6.4% of private sector workers are members of a union. Transportation and utilities sectors have the highest proportion of unionized workers at 18.3%.

It has been estimated that there is a premium to working in a union of between 10 percent and 20 percent. Workers of identical skills and qualifications make more as a result of being a part of a union. With declining unionization, it makes sense that this premium would decline, or be a smaller part of differences in wages in the economy. It is also likely that the decline in the prevalence of unions and in the numbers of workers being paid a premium as members of a union would disproportionately affect low-wage workers. There has been evidence that declining unionization has been responsible for some increasing inequality of wage income.[[19]](#footnote-19)

Labor unions have historically been important for increasing the wages of their members. They have also had the effect of raising standards for the working environment, including increasing the safety of many workplaces as well as placing limits on hours and setting rules for overtime pay. Unions have also been important insofar as they collectively bargain for their members. Because of this process, workers are likely to receive wages and benefits that are more valuable than they would otherwise be.

Businesses generally earn a stream of revenue. This revenue goes into three different buckets. The first bucket is used for paying for inputs into the production process, think rubber for making tires. The second bucket provides a return for the capital that is employed in producing the product—the machinery. The final bucket is the return to workers who provide labor for the business. The first bucket is what it is. It reflects the best efforts of management to purchase only what is necessary and at least cost.

What is left over after the first bucket is taken care of is distributed by some formula between the second and third buckets. When labor has little power at the bargaining table, when everybody is negotiating on his or her own, wages are likely to be lower than if labor had significant bargaining power. With a union in place, labor’s share of the leftover revenue will be greater than it otherwise might be. With a union, therefore, wages will be higher and returns to capital will be lower. Having a weak union, however, will impact income inequality because union members will be more likely to have lower incomes while the owners, those receiving the returns to capital, will be more likely to have higher incomes.

This trend of unionization reducing income inequality can be seen clearly in the graph.[[20]](#footnote-20) When unionization rates were lower, prior to 1935, the income shares of the top 10% were high. When unionization grew in the late 1930, through the end of World War II, income shares at the top dropped significantly. Income shares at the top remained low while unionization remained at nearly 30%, but as union membership began to decline, the income share of the top 10% again began to increase. Between 1983 and 2017, unionization rates fell by nearly 10 percentage points. At the same time, the share of income accruing to the top 10% increased from 33.7% to 47%.

Declining unionization is not responsible for all of this increase at the top, but it has been estimated that changing rates of unionization are responsible for between 25% and 33% of the increase in income inequality during this period.[[21]](#footnote-21)

Another aspect of declining labor influence is the movement toward independent contractors. This is not a new phenomenon, and it applies to most industries, but the movement has been exacerbated by the advent of the so-called gig economy. The gig economy includes the sharing economy, which is most commonly associated with ride-sharing services, such as Uber and Lyft. These companies almost exclusively rely on independent contractors. The advent of these kinds of services can be a source of increased inequality because, although they provide opportunities to people who might otherwise struggle, unionization among independent contractors is very difficult. By not being employees, their say in wage determination is minimized. They are also not offered the benefits that are often required for workers who are categorized as employees.

Not all instances of contract work lead to an increase in income inequality. But when low-skilled workers are hired as contractors instead of as employees, the workers are often disempowered, which likely results in lower wages and an increase in income inequality. This type of work, or alternative work platforms similar to this, are likely to increase in the future.

Note: it all started with Taft-Hartley after WWII. Many weapons in there against unions. Not really weaponized until Reagan fired the air traffic controllers in 1981. This sent a signal that unions were fair game. Prompted a series of Right to Work laws – which are anti-union.

1. **Competition in the Economy**

Whether or not an economy or a sector of the economy is competitive hinges on the ability of firms to determine their prices. If the economy is very competitive, then any firm that raises its prices will lose a lot of business. If the economy is not competitive, then a raise in prices will lead to greater profits.

Lower competition can increase measured income inequality in two different ways. First, by raising prices and increasing profits, the owners of businesses tend to experience higher incomes. It is also the case that the owners of businesses and shareholders tend to be higher-income households to begin with. Reducing competition can therefore increase the incomes of higher-income households by increasing the return to investing in businesses. The figure on the slide suggests that the return to owning capital has indeed been increasing significantly. [[22]](#footnote-22) The figure shows the returns received for investments in capital outside of the financial sector, excluding goodwill.[[23]](#footnote-23)

The top line, the line that indicates average returns for the investment for which 10% of investments have a higher return, has risen dramatically. For most of the post-1965 period, these returns averaged less than 40%. That changed in the late 1990s, when average returns soared to more than 100%.

Investments in the 25% percentile, those for which 25% had higher returns, also experienced significant increases. The median investment and bottom 25% did not.

This is consistent with the fact that more and more of each industry’s revenues are going to the 50 largest firms. A greater concentration of revenues suggests a less competitive industry. Between 1997 and 2007, the top 50 firms in Transportation and Warehousing increased their share of revenues by 12 percentage points.[[24]](#footnote-24) An increase occurred in 10 out of 13 industries that collectively encompass the U.S. economy.[[25]](#footnote-25),[[26]](#footnote-26),[[27]](#footnote-27)

The second way that increased competition can increase inequality is by changing the power structure of wage negotiations. If there are fewer and fewer firms competing for the same pool of labor, wages for that pool of labor are likely to decline. This, again, will lower incomes in the middle and bottom of the distribution relative to the top.

1. **Growing Revenue Concentration**

Lifted from Furman Orszag:

Consolidation may be contributing to the changing distribution of capital returns and the increased share of firms with apparently super-normal returns. The Census Bureau’s data on market consolidation shows a clear trend of consolidation in the nonfarm business sector. Table 1 shows that in three-fourths of the broad sectors for which Census Bureau data is available, the 50 largest firms gained revenue share between 1997 and 2007. We use the Census Bureau’s data because it includes private and public firms, whereas Compustat includes only public firms (Ali et al., 2009). While the 1997-2007 period is not ideal, consistent data only start in 1997 and the most recent data goes through 2007.[[28]](#footnote-28)

Other research has shown similar trends of consolidation in specific industries. A study by the Congressional Research Service (2010) shows that, between 1972 and 2002, market concentration increased in eight of the nine agricultural industries it tracks. In a study of a related set of industries, Fuglie et al. (2012) finds an increase in market concentration among agricultural supply industries. Vogt and Town (2006) find that hospital Herfindahl-Hirschman Index (HHI, a common measure of market concentration) increased from 1,576 to 2,323 between 1990 and 2003. A study by the FCC (2014) finds wireless HHIs increasing from under 2,700 in 2008 to over 3,000 in 2013. Corbae and D’Erasmo (2013) document an increase in concentration of the loan market share and deposit market share of U.S. banks between 1976 and 2010. For example, in 1976 the four largest had 11 and 10 percent of the banking industry’s loans and deposits, respectively. By 2010 these shares had grown to 38 and 37 percent, respectively. To the extent industries look more like oligopolies than perfectly competitive markets, they will generate economic rents. In the absence of some countervailing public purpose, such rents reflect an erosion of the surplus that would otherwise accrue to consumers in a competitive market.

1. **CEO Pay Has Been Growing Rapidly**

Perhaps as a result of less competition in the economy and hence greater returns to some of the economy’s largest companies, the ratio of CEO pay to the pay of an average worker in the same company has skyrocketed since the late 1980s.

Prior to 1985, CEO compensation had been consistently below 50 times the compensation of the average worker at the same company. By 2000, at the peak of the dot-com bubble, the ratio had grown to 343.5 times greater than average worker compensation.[[29]](#footnote-29)

This is to some extent a reflection of the “winner take all” nature of today’s economy. Earnings at many firms are being increasingly concentrated in the hands of just a few, or perhaps just the one, the CEO.

A reasonable argument can be made that these outsized compensation packages merely reflect the value that the CEO brings to the company. CEO compensation among S&P companies is highly correlated with the S&P.[[30]](#footnote-30)

Although this may be true, it is nonetheless true that this phenomenon is adding significantly to income inequality in the United States

1. **CEO Pay Has Been Growing Rapidly**

<Overlay of international comparison>

1. **Immigration**

Much of the increase in CEO salaries has come about because they are increasingly compensated according to how their stock price changes. As you can see, there was significant correlation between CEO pay and stock prices as proxied by the S&P 500, in particular, after 1980.

Curiously, the causation or correlation isn’t clear. Have stock prices increased because they are increasingly tied to CEO compensation? So high stock prices drive CEO compensation up and CEOs are driving stock prices up to get higher compensation.

1. **Immigration**

Immigration has received a lot of attention, and many believe that immigrant workers contribute to an increase in income inequality. The notion is relatively intuitive. Most immigrants, or at least those receiving most of the attention, are low-income workers. As more low-income workers come into the economy, they compete with low-skilled Americans, driving down their wages. There is a flip side to this argument that also suggests that immigrant workers contribute to income inequality—many immigrants are high skilled and therefore receive high wages. Thus, immigration adds workers at both tails of the distribution, which suggests that it increases income inequality. The figure on the slide backs this up.[[31]](#footnote-31) If you look at the distribution of income without immigrants, it is more equal than with them, but not by very much.

It is important to notice from the graph that the trends of the two lines are very similar. Immigration may well add to inequality, but there is little evidence that it is adding significantly to the trend in income inequality when we consider the number of immigrants and the pattern of immigration.

Things are a little bit different once the influence on wages of an increase in immigration is taken into account.

1. **A Summary of Immigration and Inequality**

To recap, if we look at the simple numbers, it seems as though immigration, both legal and illegal, would have a potentially significant effect on income inequality. Between 1970 and 2016, the share of the U.S. population made up of immigrants increased significantly. In 1970, it was just 5%. By 2016, it was 14%.[[32]](#footnote-32) The figure in 2016 is roughly consistent with much of U.S. history. Between 1860 and 1920, immigrants made up between 13% and 15% of the population. The share declined through 1970.

It is true that immigration happens at the two tails of the distribution: among primarily high- or low-skilled workers, but not middle-income workers. As such, it has likely increased inequality, as shown on the previous slide. Adding low-skilled workers increases the share of workers at the lower end of the distribution, pushing the left end of the blue line in slide 10 down. Adding workers at the high end will push the right end of the blue line up.

If we don’t know anything about relative numbers, we can’t say anything about what this does to inequality. However, we do know that the vast majority of immigrants of working age do not have a bachelor’s degree.[[33]](#footnote-33) It is considerably more likely, then, that immigration exacerbates income inequality.

Although there is likely an impact, efforts to measure the size of the effect find that the impact is quite small. One estimate is that between 1980 and 2000, just 5% of the increase in income inequality in the United States can be attributed to immigration.[[34]](#footnote-34)

Immigration does increase income inequality, but it is generally agreed that it is not a significant source of growing income inequality in the United States.

1. **Technological Change and Inequality**

A striking feature of the U.S. economy over the last 30 years has been the pace and nature of technological change. Much of this technological change has led to employment opportunities that are biased toward those with labor market skills, such as higher levels of education or technical certifications, or both.

Examples of the pervasive use of technology include the permeation of computers throughout the economy, and the introduction of advanced manufacturing technologies and robotics. In specific industries, technology has changed in ways that significantly reduce the demand for labor, and in particular, lower-skilled labor. One example is the steel industry. With the introduction of mini-mills, mills that melt down scrap and produce recycled steel, employment in the industry has declined significantly. These mills simply require fewer workers than the mills using the previous technology.

This type of technological change is unlikely to stop as the economy moves forward. In particular, much is currently being written about the effects of automation on jobs. A prime example is the autonomous vehicle. When cars, trucks, and buses no longer require a human being behind the wheel, an enormous number of jobs will be in jeopardy. Many workers will be vulnerable, including drivers, workers in automotive repair shops, parking lot attendants, and to some extent police officers and firefighters.[[35]](#footnote-35)

At the same time, automation will create jobs, but these jobs are likely to require skills that those displaced by automation simply do not have. Automation has played a significant role in the U.S. economy for decades, and it is not going to stop in future decades. It will continue to have the effect of increasing the concentration of income in the hands of fewer and fewer individuals.[[36]](#footnote-36)

Another aspect of technological change, particularly in the high-tech part of the economy, is the “winner-take-all” environment. The Internet has facilitated the marketing to and servicing of the entire global economy by any service provider. Consider Google. Google is the leading search engine available. If you are on the Internet, why use any other search engine? There is little variety in search quality. Either a search engine provides high-quality search results or it doesn’t. As a result, industry concentration will tend to be very high in these industries, and all of the benefits will accrue to a very small number of individuals.

1. **Technology Benefits Ownership over Labor**

The technological advances of the past have served to increase the productivity of the U.S. economy. During much of the latest technological revolution, jobs have been created. Beginning in about 2000, productivity continued to increase throughout the economy, but employment began to stagnate. The graph illustrates this. Although employment grew a little bit more slowly than did productivity through 2000, this coupling failed in 2000.[[37]](#footnote-37)

We may have entered an era in which digital labor substitutes for human labor. A broad range of jobs could be lost, from those that rely on routine tasks, the loss of which will suppress the wages of less-educated workers, to those requiring more sophisticated skills, such as writing prose. Digital labor is slowly displacing more and more workers with higher skill levels. This compresses income, favoring those who own equipment over those who provide labor services.

1. **Technology can Hurt Low Income Workers**

As we just discussed, recent innovations in technology have likely injured low-wage workers. It is important to note, however, that this is not always the case. The introduction of a NEW technology, such as the automobile can create a lot of low-income jobs.

Once the technology matures, however, as pictured, the low-income jobs are likely to disappear as in this case robots take over the assembly line.

1. **A Modern Example: Uber and Lyft**

Some technology has merely found a way of changing an existing industry by injecting technology into it. Such as Uber and Lyft and taxis. Uber and Lyft are simply modern taxi companies. They provide the same service, just arguably more conveniently.

For inequality, they have also figured out how to shift all of the costs of providing the service on to the Uber and Lyft drivers. This is another example of a shift to owners over workers as these drivers are frequently very poorly compensated once their expenses are taken into account.

1. **Globalization[[38]](#footnote-38)**

There are many instances of the effects of globalization. The most commonly discussed are changes in the global trade of goods—largely manufactured goods, but also agricultural products. This topic includes another important component of global trade—the growth in offshoring, or outsourcing, as it is sometimes called. Trade in services, including accounting, phone banking, legal, medical, and other services, has been growing and likely plays some role in the economic changes related to globalization. Immigration and the flows of capital are also a part of globalization. Immigration has already been discussed and capital flows will be left for another time.

1. **Mechanisms for the Effects of Globalization**

The increase in globalization, and in particular the changes in the trading of goods, is often associated with shifts in the distribution of wages in the United States. The explanation of the mechanism behind this effect usually follows this general reasoning: because many countries with which the U.S. trades, notably those in Asia, have a higher proportion of unskilled workers, we must be importing low-skill-intensive goods. If we do that, then we are implicitly reducing the demand for low-skill-intensive goods production in the United States, and hence reducing the demand for low-skilled workers. At the same time, we are likely exporting skill-intensive goods, thereby increasing the wages of high-skilled workers. This trend is consistent with changes in the wage distribution, but the general evidence is that merchandise trade is unlikely to be a significant driving force behind the growing wage inequality in the United States.[[39]](#footnote-39)

Outsourcing is another manifestation of globalization. The reality of outsourcing is that it is driven by the same forces as international trade, so it would likely have a similar impact: reducing the wages of low-skilled workers relative to skilled workers.

Trade in services is growing as well. Between 1907 and 2003, it grew from 1% of GDP to 2.9% of GDP. Traded services growth has been characterized by increased imports of business and professional services, and, in particular, the parts of those services that are often carried out by middle-income workers. There is currently little evidence of how much an increase in traded services affects the wage distribution. Given its small size relative to GDP, the effect is likely small.

1. **Effects of the Unhinging**

In slide 28, we saw that labor compensation is not keeping up with growth in labor productivity. Relative to 1980, productivity had nearly doubled, while labor compensation increased by just 39%.[[40]](#footnote-40) This is defined by the Bureau of Labor Statistics as:

*the fraction of economic output that accrues to workers as compensation in exchange for their labor*

We have discussed the potential causes of this unhinging, but this slide presents the implications for those earning their income through providing labor rather than as owners of the means of production: labor’s share of compensation.

There are three lines on the graph. The first, the blue jagged line, represents labor’s share of compensation in each quarter. The first thing to notice is that this line moves around a lot. That observation isn’t all that helpful for us, so instead, we look for trends.

The first trend is illustrated by the red line. That line suggests that labor’s share of compensation has been declining for a long time. Between 1947 and 1998, the trend was slightly downward.

The second trend is illustrated by the green line. That line illustrates the trend of labor’s share of compensation between 1998 and 2018 and is distinctly faster downward.

What do we know about labor’s share of income? 1) it has been declining for a long time and 2) the decline accelerated beginning in about 1998.

It is now time to ask the question, why the dramatic shift in the trend of labor share of compensation? The answer is that we don’t know for sure, but there is a remarkable correlation with the unhinging that we talked about in slide 28. That is, in or around 1998, the gap between labor productivity and compensation began to widen at a much faster rate than it had between 1980 and 1998. It was definitely the continuation of a trend in that gap getting bigger, but for some reason it accelerated after 1998, with labor income remaining near flat while labor productivity increased dramatically.

We don’t know exactly what happened in 1998, but due to some combination of the forces that we just discussed, or some forces that we are unaware of, this unhinging impacted the income of labor dramatically after 1998.

As labor is the primary source of income for a large segment of the population and capital income goes primarily to higher income households, this trend has undoubtedly contributed to increasing income inequality.

1. **What Is Driving Increasing Income Inequality?**

As discussed above, there can be multiple causes of growing inequality. If growing inequality is driven by demographics, then it might very well not be an issue to be addressed by policy considerations. If, however, the increase is being driven by declining access to resources, such as education, so that the overall productive capacity of the economy isn’t what it might be, then that is another matter, and arguably one to be addressed by policy decisions.

There seems to be a general consensus that globalization (trade and offshoring), technology, and institutions are the primary drivers of increasing inequality in the United States. Of these three, there is little consensus as to which is a primary driver.[[41]](#footnote-41) Also, the rising practice of basing executive compensation on stock options has pushed top incomes well above historical norms.[[42]](#footnote-42)

1. **Sources of Income Inequality through the Late 1990s**

In the late 1990s, the Federal Reserve assembled a group of experts and established their version of a consensus view of the causes of increasing income inequality up to that point. The graph on the slide illustrates their consensus view. That view is that by far the largest contributor to rising income inequality is skill-biased technological change, accounting for nearly 45% of the increase. That still leaves most of the change unaccounted for. Globalization is the second largest contributor to rising inequality.

These two sources were likely the largest contributors to inequality and it is reasonable to expect that they have remained so. There is also likely to have been very little change in the contribution of the other factors. Though individual states and jurisdictions have raised the minimum wage, this surely does little to offset the nationwide decline in the minimum wage (in real terms). The decline in unionization has continued since the late 1990s and shows no sign of slowing. Immigration has slowed in the wake of the Great Recession, so if anything, its contribution has declined since the 1990s.

To the extent that the decline in unionization reflects the declining bargaining position of labor more generally, it is possible that this phenomenon has grown in importance. The growing prevalence of the gig economy and the increased reliance on contractors both have the effect of separating labor from prescribed benefits (including health care, unemployment compensation, and disability), discouraging collective bargaining, and undercutting any influence over the determination of wages. It is possible that labor’s declining bargaining power has grown as a source of income inequality.

The second largest source of increased inequality is rather vaguely labelled “Other.” Standing out among these other sources are the reductions in competition that were discussed earlier in the presentation. This and other rent-seeking behavior—efforts to tilt the economic table in one direction or another—are likely significant contributors to overall inequality. Again, it is reasonable to expect that this has remained unchanged since the 1990s.

1. **Why Does Inequality Matter?**

With regard to inequality as a policy issue, there are several important questions. What are the potential effects of having either too little or too much inequality? How much is too much?

1. **The Great Gatsby Curve**

This graph was named the Great Gatsby curve after the book by F. Scott Fitzgerald. The book was all about the romance of wealth accumulation – with no small commentary on the activities that often accompany it.

This graph shows the generally positive relationship between inequality and the intergenerational earnings elasticity. The higher is inequality, the higher is the elasticity. Recall that a higher elasticity means less mobility – greater ties between parents’ incomes and childs’.

<click> Here is the U.S., pretty high up the line. The U.S. currently has lots of income inequality and relatively little mobility – confirming our conversation earlier about how the U.S. stacks up.

<click>It is worth noting that the U.S. is up in a part of this graph with countries like Peru and Brazil, countries much less well developed than the United States.

<click>The U.S. is also not far from China.

<click>More developed countries, Germany and Canada, for instance, have both chosen a path of less income inequality and they have more economic mobility.

1. **Evidence of Unequal Growth and Mobility**

At the same time that inequality has been growing, the evidence suggests that the American Dream has been fading. In particular, a child born in 1950 had an 80% chance of exceeding their parents income in adulthood. By 1980, that chance had fallen to 50%, so it is essentially random.

This strongly suggests that the growth in the economy is, as growing inequality suggests, going to those at the top, limiting growth at the bottom and upward mobility over time.

1. **Mobility is Very Different Across Races**

This reduction in mobility has implications for different races/ethnicities.

This image shows several things. First, at a general level, it is clear that the income of the family into which you were born has implications for your income as an adult. Those born into poor families are much more likely to end up poor than are those born into high income families.

It also shows how much race matters. A poor black child is twice as likely to remain poor than is a poor white child. Similarly, a Black rich child is twice as likely to be poor as an adult as is a rich White child.

Reductions in mobility associated with greater inequality may well have greater negative implications for Black children in adulthood than for White children.

1. **Government Policy and Racial Inequality**

These disparities in both income and mobility are likely a result of discrimination in economic policy throughout the history of the United States. NEED has a slide deck on this issue. Here, we would like to point out two particularly relevant types of discrimination.

1. Policies that govern where the Black population lives.
2. Policies that have a disparate impact on Black individuals because of where they live.
3. **How Much Inequality Is Too Much?**

Increasing income inequality is clearly not always bad for an economy. To the extent that it reflects increasing rewards to investments in education, effort, and skill, it may well be a productive driving force in an economy. What it really boils down to is a tradeoff between equity and efficiency. If you think about equity as how income is distributed, more inequality necessarily leads to a less equitable distribution of income.

If you think of GDP as a measure of efficiency, then any changes in inequality that lead to economic growth are likely to be considered a positive aspect of increasing inequality. All else equal, increasing GDP is unambiguously good. The same cannot be said of equity. All else being equal, increasing equity is not unambiguously good, rather it is debatable, with no objectively right or wrong answer. Reasonable people will, based on their morals, values, and ethics, view the issue of increased equality of income differently. But this does not mean that objective, clear statements cannot be made about whether or not there is too much inequality.

Certainly, if the starting point from which inequality is growing is total equality, there is likely a range where all would agree that growing inequality is likely a good thing. This is a range where equity is reduced, but GDP is increasing sufficiently so that the efficiency gains outweigh the decline in equity. This is the far-left segment of the chart. The cost of inequities associated with increasing inequality is outweighed by the gains in efficiency.

The only other thing that is clear in this calculation is that there is a point beyond which increasing inequality reduces both GDP and equity. At zero, it is clearly possible to raise GDP by increasing inequality. The same is true of 100% inequality. By lowering inequality, it is possible to raise both efficiency (GDP) and equity. There is some range in which both measures improve. This range ends at point X. Beyond point X, efficiency begins to suffer, while equity continues to increase as you move toward less inequality.

Raising inequality beyond this point X in the chart, is clearly a bad thing, unless you are one of the few who are accumulating income. This negative impact on GDP of inequality likely arises from two different sources. First, there is a human capital explanation. Lower-income individuals may not be able to finance education and hence will obtain less of it, reducing the productive capacity of the economy.[[43]](#footnote-43) It is also possible that the appeal of education is lessened by the lower likelihood of achieving the economic success that comes with it, though this seems somewhat less probable.

For the vast majority, the dividing line beyond which there is too much inequality is somewhere to the left of point X. In the range to the left of point X, there is a point Z. This is the point at which the benefits of increased efficiency are outweighed by the accompanying decline in equity. Where Z falls is personal. Some will put a higher weight on equity and will decide that inequality of Z’’ is best, while others will put a higher weight on GDP and decide that a point like Z’ is best.

The point of this exercise is not to say that Z, Z’, Z’’ or X are the optimal levels of inequality, merely to point out that there is an optimal level and it is almost assuredly to the left of X. Where it is in that range is not determined by economics. It is determined by society’s collective values, morals, and ethics.

One of the difficult aspects of this discussion is that nobody knows precisely where X is. It is entirely possible for a society to decide that a level of inequality is appropriate and to find that it has settled on a level that is too high. This problem is most likely to occur when there is a general ignorance over the equity and efficiency tradeoff that is inherent in increasing inequality. It appears, however, that for most of the developed world, the United States included, inequality has reached a point where it is likely slowing GDP growth.[[44]](#footnote-44)

1. **Inequality Can Also Directly Affect GDP**

Consumption drives GDP in the United States. As much as 67% of GDP is accounted for by consumption. The level of consumption that occurs can be affected by the purchasing power of those wishing to consume. The middle class, no matter how you define it, can be an enormous engine of consumption. Over the last 40 years, however, income has been shifting away from the lower and middle parts of the income distribution to the very top. Accordingly, purchasing power is shifting to the top, towards those who are less likely to spend it.

Consider an extreme, where Elon Musk, Warren Buffett, and Jeff Bezos have 90% of the income. They are clearly not going to spend as much of that income as the middle classes would, should they be receiving the income.

As inequality grows, more income goes to those at the top who won’t spend all of it. The common narrative is “let’s give income to those folks because they will invest it!” If they are investing it, they are not spending it. There is no telling what impact, if any, their investment will have on GDP. If spending isn’t happening in the United States, the investment won’t either.

A more equitable distribution is more conducive to increased consumption, which is what drives GDP.

1. **Summary of the Effects of Too Much Inequality**
2. **An International Perspective**

This image presents a color coding of Gini coefficients around the world. The data were taken from the CIA World Factbook in 2014, meaning that most of the data are from the early part of this decade. Darker colors in the image represent higher Gini coefficients. According to these data, the United States compares more favorably to countries like China, Argentina, and Mexico than to the developed countries of Europe.[[45]](#footnote-45)

1. **An International Perspective: Comparable Countries**

When considering how much inequality is too much, it is worthwhile comparing inequality in the United States with inequality in other developed countries. The figure presented does just that. When compared to six countries that are arguably the closest peer countries to the United States, the share of income earned by the top 1% is significantly higher in the United States and has been growing much more quickly than in any of the other countries.[[46]](#footnote-46) In 2015, the share of income going to the top 1% was in excess of 17%. In none of the other countries has this share been much higher than 15%, and then only briefly in the United Kingdom just prior to the Great Recession.

These six countries are all very similar to the United States. Their economies are based on very similar capitalist systems and their cultures are also similar. There is nothing inherently different in the United States that would dictate a higher share of income going to the top 1%. Indeed, in the 1970s and through the mid-1980s, the United States did not stand out in this regard. Although the share of income earned by the top 1% has increased in many countries since that time, it has increased significantly faster in the United States.

This observation strongly suggests that the amount of income inequality in a country is a matter of policy, not something inherent in the makeup of the economy. That is, there is something inherently different in the policies of the United States that have led to this dramatic increase in income inequality. Therefore, there are policy prescriptions that could be reasonably applied to reduce the level of income inequality.

1. **High-Income Households Save More**

According to the graph, households in the top 1% tend to save roughly 40% of their gross income. At the same time, those in the bottom 90%, that’s 9 out of 10 households, tend to save 3% to 5%. There are of course periods where both groups save considerably less.

High-income households tend to have lower capital gains during recessions, which frequently reduces their savings. Savings practices among the general population tend to be somewhat less cyclical.

This suggests that higher-income households are consuming financial security and leisure in ways that the rest of the population cannot. Indeed, as we saw on slide 8, mean wealth among the top 10% was 46.5 times higher than median wealth in the general population in 2016. This reflects a growing gap in incomes that facilitates greater savings. In 1995, mean wealth among the top 10% was 19.0 times higher than median wealth in the general population.

Growing income inequality is clearly manifesting itself in higher savings and higher wealth.

1. **Addressing Inequality: Is it a problem?**

Whether or not you think that a given level of inequality is a problem, depends on both economic and noneconomic factors. It is generally believed, as we have discussed, that extremely high levels of inequality are bad for economic growth, bad for economic efficiency.

Or there are noneconomic factors, equity issues, that frame one’s view of a given level of inequality.

In the event that you think that the level of inequality is too high, economics can help to frame the optimal policy approach.

1. **Addressing Inequality (slide 1 of 2)**

In the event that one is of the view that the present level of inequality is too high, there are a variety of policy instruments available to reduce it. These policies fall into several categories:

1. Redistribution: these are largely tax and transfer programs, such as the EITC, welfare, and an increasingly progressive tax structure.
2. PRE-distribution: this is not actually a common term in economics, but it refers to policies that affect the distribution of income before incomes are set, as opposed to the redistribution programs.
3. **Historical Values of Minimum Wages**

According to Derenoncourt and Montialoux (2021), the increase in the min wage in the 1960s was because of the expansion of coverage in the Fair Labor Standards Act. Added in ag, nursing homes, restaurants, and other service sector jobs. These jobs were heavily staffed by Black workers. They found no noticeable employment effects among Black workers in the wake of this increase in minimum wage.

1. **Fewer Min Wage Workers are Bound by Federal Minimum**

As the Federal government continues in its reluctance to increase the minimum wage, states and various local governments have instituted their own minimum wages. In California, the minimum wage is $15/hour. In San Francisco, the minimum wage as of July 1, 2022 is $17/hour.

As such, the federal minimum wage is increasingly less relevant. Just 700,000 of the 6.6 million workers being paid the minimum wage are receiving pay as low as the federal minimum.

1. **Many States Have A Higher Minimum Wage**

Many states do have a higher minimum wage. California at $15/hour, NY is $13.20, Maine is $12.75 and Florida is $10/hour.

There are certain patterns in the minimum wage. For instance, states with a higher proportion of Black workers tend to just adopt the Federal minimum wage, with no local minimum wage laws.

1. **States and Local Gov’ts are Raising Min Wages**

Here, you can see the impact of state and local level minimum wages on the average minimum wages to which workers are subject. The average is significantly higher, at about $12/hour. It is important to keep in mind, however, that many workers are still making just $7.25/hour.

1. **Addressing Inequality through Policy (slide 2 of 2)**
	1. Other policy actions could be geared toward protecting consumers and reversing trends in market power.
	2. Local measures: There are a variety of programs that are designed to increase job accessibility and stability. These include training for job accessibility and assistance with day-to-day issues, such as child care and temporary illness.
	3. Local services: There are new technologies and services that are becoming available that are largely regulated at the local level. Important examples are ride-sharing companies and the gig economy more generally. The ride-sharing opportunities as they exist currently weaken the ability of labor to negotiate for higher wages, increasing inequality.
2. **Addressing Inequality over the Longer Term**

Policies for addressing inequality over the longer term all center around increasing access to resources, with the most important resource being education. Public education has been in decline. To ensure that the next generation of workers will be prepared for a changing economy, it is important to eliminate disparities in school quality, expand pre-K programs, expand counseling services in low-income schools, restore college funding, and support pathways to success that improve college admission rates and college graduation rates.

1. **What to Do about Inequality?**

There are a variety of policy options available to reduce poverty. Applying one of these policy instruments to the issue of inequality presumes that it is a problem worthy of rectification. It is not an unreasonable position to assert that inequality at its current levels is not a problem. It has not been well established how to determine the point at which both equity and efficiency (the effects on GDP) begin to decline. With this perspective, the appropriate policy response is to do nothing.

It is also perfectly reasonable to have concerns about the level of inequality that the U.S. economy is currently experiencing. The policy tools for addressing these concerns fall into several buckets. These buckets include redistribution policies—policies that tax higher-income households and transfer income to lower-income households. There are policies that involve what here has been dubbed PRE-distribution; that is, policies that change the marketplace to the advantage of lower-income workers. Finally, there are policies that seek to level the playing field. These policies facilitate access to resources that are key to future economic success. For example, they seek to improve access to education, health care, and adequate housing.

Addressing economic inequality requires thoughtful debate. Reasonable people can disagree on the extent to which income inequality is a problem, and there can also be disagreements regarding the best policy solutions. The entanglement between inequality and an individual’s incentives to improve his or her situation make inequality a very challenging policy issue.

1. **Tension in Policy Solutions**

A common refrain in conversations about inequality, as was discussed earlier, is the notion that inequality is necessary to promote economic growth and that policies designed to reduce inequality will necessarily be inefficient because of their effect on growth.

All will agree that there is some point at which inequality does negatively affect economic growth. The disagreement comes from whether or not we are beyond that point. There is some evidence that we are, and that the cause of declining growth is the underinvestment in human capital that results from the inability of those in the lowest-income categories to make those investments.

From an economy-wide perspective, if the United States does indeed have inefficiently low levels of human capital investments, an effort to increase those investments will increase GDP. The difficulty is in adopting policies that will encourage greater human capital investments (through access to higher quality education at low cost) without excessively impeding other drivers of growth. These policies will likely involve sacrifices among the higher-income members of the economy.

1. **Summary**

The preponderance of evidence suggests that income inequality in the United States is increasing significantly. By some measures, it is greater now than at any time in the last 100 years. Evidence is also accumulating that suggests that it is market forces or changing institutions that are largely responsible. Personal decisions do likely play a role, but they are not driving factors, and it is possible that many of these personal decisions are a result of changes wrought by market forces and changing institutions.

The decision of whether or not to enact policies to counteract growing inequality is an important question. Economics does not yet provide us with the answer. There is evidence that inequality has reached levels at which it is a detriment to economic growth, which suggests that perhaps we are at a point where action should be taken purely on economic grounds.

Economic grounds are not the only considerations when making important decisions. There are basic questions of equity with implications for the social and political aspects of society. These, however, are beyond the scope of an economic presentation.

Once the decision to act has been made, the issue of how to act is front and center. As discussed, there are policies that reduce income inequality by transferring income. There are policies that work in the long term to equalize the potential earnings capacity of the citizenry by equalizing access to resources. There are also policies that would more directly affect the underlying causes of increasing income inequality.

1. **Thank you!**
1. Thomas Piketty and Emmanuel Saez, 2003, updated to 2015 (TabFig2015prel.xls). [↑](#footnote-ref-1)
2. Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, “A Guide to Statistics on Historical Trends in Income Inequality,” Center on Budget and Policy Priorities, Policy Futures, May 15, 2018. [↑](#footnote-ref-2)
3. Slide taken from page 10, Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, “A Guide to Statistics on Historical Trends in Income Inequality,” May 15, 2018 [↑](#footnote-ref-3)
4. Slide taken from page 11, Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, “A Guide to Statistics on Historical Trends in Income Inequality.” May 15, 2018 [↑](#footnote-ref-4)
5. Internal Revenue Service, https://www.irs.gov/statistics/soi-tax-stats-top-400-individual-income-tax-returns-with-the-largest-adjusted-gross-incomes. [↑](#footnote-ref-5)
6. Slide taken from page 11, Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, “A Guide to Statistics on Historical Trends in Income Inequality.” May 15, 2018 [↑](#footnote-ref-6)
7. Slide taken from page 11, Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, “A Guide to Statistics on Historical Trends in Income Inequality.” May 15, 2018 [↑](#footnote-ref-7)
8. Jacob S. Hacker and Paul Pierson, *Winner-Take-All Politics, How Washington Made the Rich Richer—and Turned Its Back on the Middle Class,* Simon & Schuster, 2010. [↑](#footnote-ref-8)
9. Congressional Budget Office, “The Distribution of Household Income and Federal Taxes, 2013,” <https://www.cbo.gov/publication/51361>, Figures 8 and 13. [↑](#footnote-ref-9)
10. Internal Revenue Service, “SOI Tax Stats: Top 400 Individual Income Tax Returns with the Largest Adjusted Gross Incomes,” https://www.irs.gov/statistics/soi-tax-stats-top-400-individual-income-tax-returns-with-the-largest-adjusted-gross-incomes. [↑](#footnote-ref-10)
11. See <https://www.chartbookofeconomicinequality.com/> (AllData\_ChartbookOfEconomicInequality.xlsx, as of April 3, 2018.) [↑](#footnote-ref-11)
12. Source: Center for Budget and Policy Priorities, “A Guide to Statistics on Historical Trends in Income Inequality,” 02/16/18. Produced from the Survey of Consumer Finances, 2017. [↑](#footnote-ref-12)
13. Congressional Budget Office, “The Distribution of Household Income, 2014,” published March 2018. [↑](#footnote-ref-13)
14. Congressional Budget Office, March 2018. [↑](#footnote-ref-14)
15. Daniel H. Cooper, Byron F. Lutz, and Michael G. Palumbo, “The Role of Taxes in Mitigating Income Inequality Across the U.S. States,” *National Tax Journal,* December 2015, 68(4), 943-974. [↑](#footnote-ref-15)
16. Internal Revenue Service, “The 400 Individual Income Tax Returns Reporting the Largest Adjusted Gross Incomes Each Year, 1992-2014,” Statistics of Income Division, December 2016, https://www.irs.gov/pub/irs-soi/14intop400.pdf. [↑](#footnote-ref-16)
17. Thomas Piketty and Emmanuel Saez, "How Progressive Is the U.S. Federal Tax System? A Historical and International Perspective," NBER Working Paper No. 12404, July 2006. [↑](#footnote-ref-17)
18. Bureau of Labor Statistics, Economic News Release, “Union Members Summary,” Friday, January 19, 2018, https://www.bls.gov/news.release/union2.nr0.htm. [↑](#footnote-ref-18)
19. David Card, NBER Working Paper #4195, October 1992, “The Effect of Unions on the Distribution of Wages: Redistribution or Relabelling?” [↑](#footnote-ref-19)
20. Troy and Sheflin, 1985; Bureau of Labor Statistics, Current Population Survey; Weir, 1992; World Wealth and Income Database; CEA calculations. Most directly: 2016 Economic Report of the President, by way of https://voxeu.org/article/forms-and-sources-inequality-united-states. [↑](#footnote-ref-20)
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22. J. Furman and P. Orszag (2015), “A Firm-Level Perspective on the Role of Rents in the Rise in Inequality,” Presentation at “A Just Society” Centennial Event in Honor of Joseph Stiglitz Columbia University, October 16, 2015. [↑](#footnote-ref-22)
23. Goodwill makes up part of the premium that is paid in an acquisition of a company. If a company is purchased for more than it is worth on the books, the company is paying for intangible elements such as skilled employees, brand recognition and other similar items. It is important to note that items such as patents or trademarks are accounted for in different line item.

Some examples of Goodwill are: Brand name, Customer loyalty, and Proprietary production methods (i.e. the recipe formula for Coke).

Whenever a company is acquired for an amount higher than the book value, a write up of intangible assets and PP&E along with goodwill usually account for the difference. [↑](#footnote-ref-23)
24. 2016 ERP, Table 1-2, page 42. [↑](#footnote-ref-24)
25. For more, see: Sean Ennis, Pedro Gonzaga, and Chris Pike, “Inequality: A Hidden Cost of Market Power,” OECD, 2017. See also Ennis and Kim (2016), Furman and Orszag (2015), Rognlie (2015), Baker and Salop (2015), Creedy and Dixon (1999) and Comanor and Smiley (1975). [↑](#footnote-ref-25)
26. Gustavo Grullon, Yelena Larkin, and Roni Michaely, “Are US Industries Becoming More Concentrated?” October, 2016, https://finance.eller.arizona.edu/sites/finance/files/grullon\_11.4.16.pdf. [↑](#footnote-ref-26)
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28. This metric of concentration is at best an imperfect tool for examining trends in geographically differentiated industries where national firms play a comparatively small role, like health care and social assistance. For these types of industries, it is often more meaningful to examine trends in the average level of local-market concentration. Notably, research examining hospital markets, the largest sub-industry of health care and social assistance, finds that the average local hospital market became more concentrated from 1997 to 2007, despite the fact that the share of revenue earned by the 50 largest firms nationwide fell (Gaynor et al., 2014). [↑](#footnote-ref-28)
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31. See http://blogs.lse.ac.uk/usappblog/2015/10/14/how-immigration-makes-income-inequality-worse-in-the-us/. [↑](#footnote-ref-31)
32. See https://www.migrationpolicy.org/programs/data-hub/us-immigration-trends#history. [↑](#footnote-ref-32)
33. See https://www.brookings.edu/wp-content/uploads/2016/06/06\_immigrants\_singer.pdf. [↑](#footnote-ref-33)
34. David Card, “Immigration and Inequality,” NBER Working Paper 14684, January 2009, http://www.nber.org/papers/w14683.pdf. [↑](#footnote-ref-34)
35. Technological change has been estimated to add to about half of the declining labor share. See http://www.nber.org/papers/w19136.pdf, The lower price of investment goods explains roughly half of the observed decline in the labor share, even when we allow for other mechanisms influencing factor shares such as increasing profits, capital-augmenting technology growth, and the changing skill composition of the labor force. [↑](#footnote-ref-35)
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