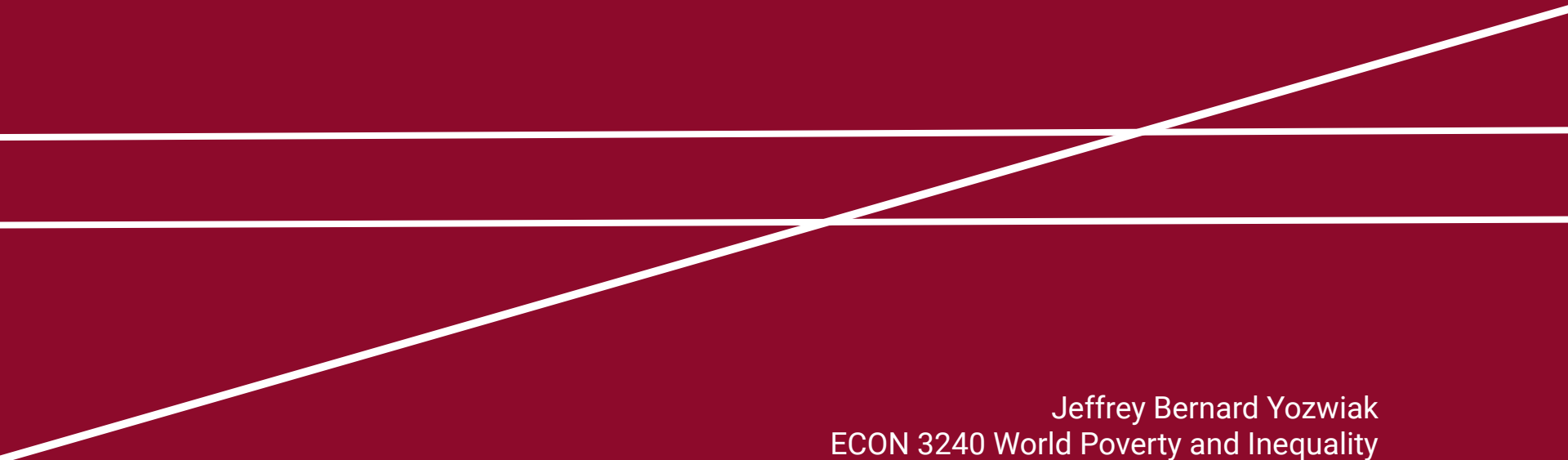


Inequality in the United States



Jeffrey Bernard Yozwiak
ECON 3240 World Poverty and Inequality
Spring 2020

The rising tide lifts all boats.

— John F. Kennedy (1963)

Outline

- I. Trends in Inequality
- II. Causes
- III. Solutions

I. Trends in Inequality in the US

1. Overall inequality is increasing

- Inequality in the US has been rising since the 1980s.
- Inequality has risen more in the US than in other advanced economies.
- Income inequality and wealth inequality have both risen.
- Intergenerational mobility has declined since the 1940s.

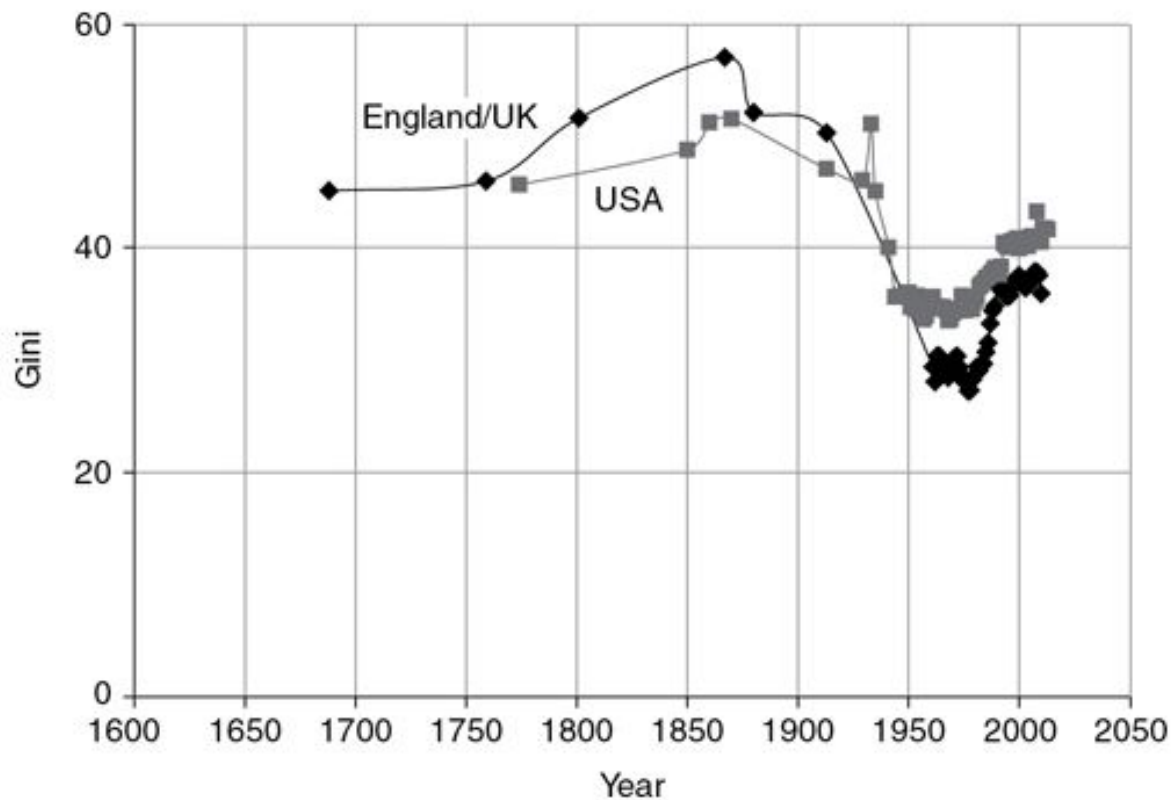
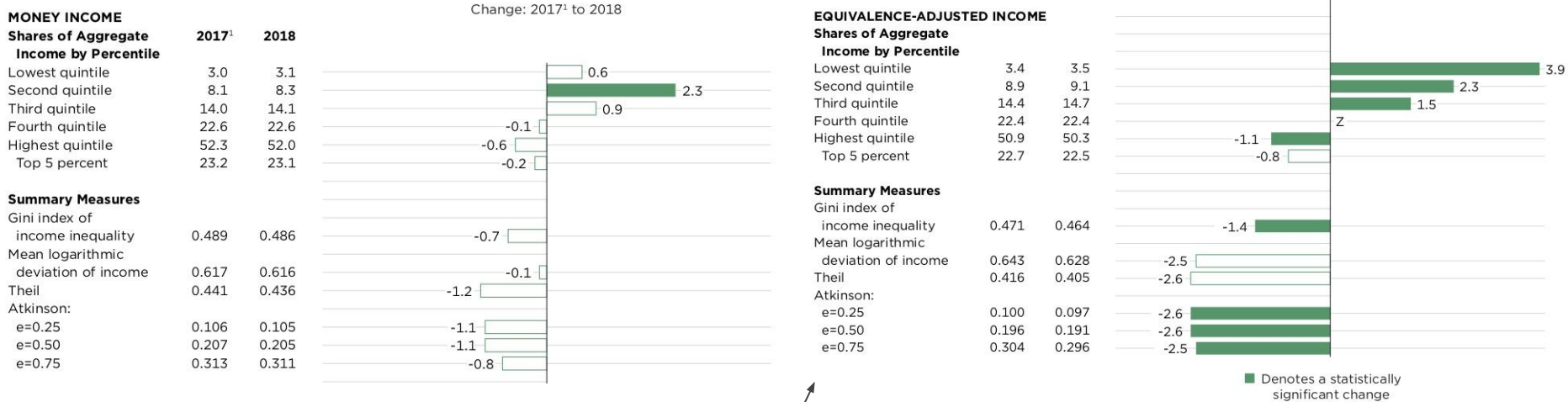


FIGURE 2.1. Inequality in England/UK and the United States from the 17th century to the 21st century

Source: Milanovic (2016)

Gini Coefficients of US and UK, 17th – 21st Centuries

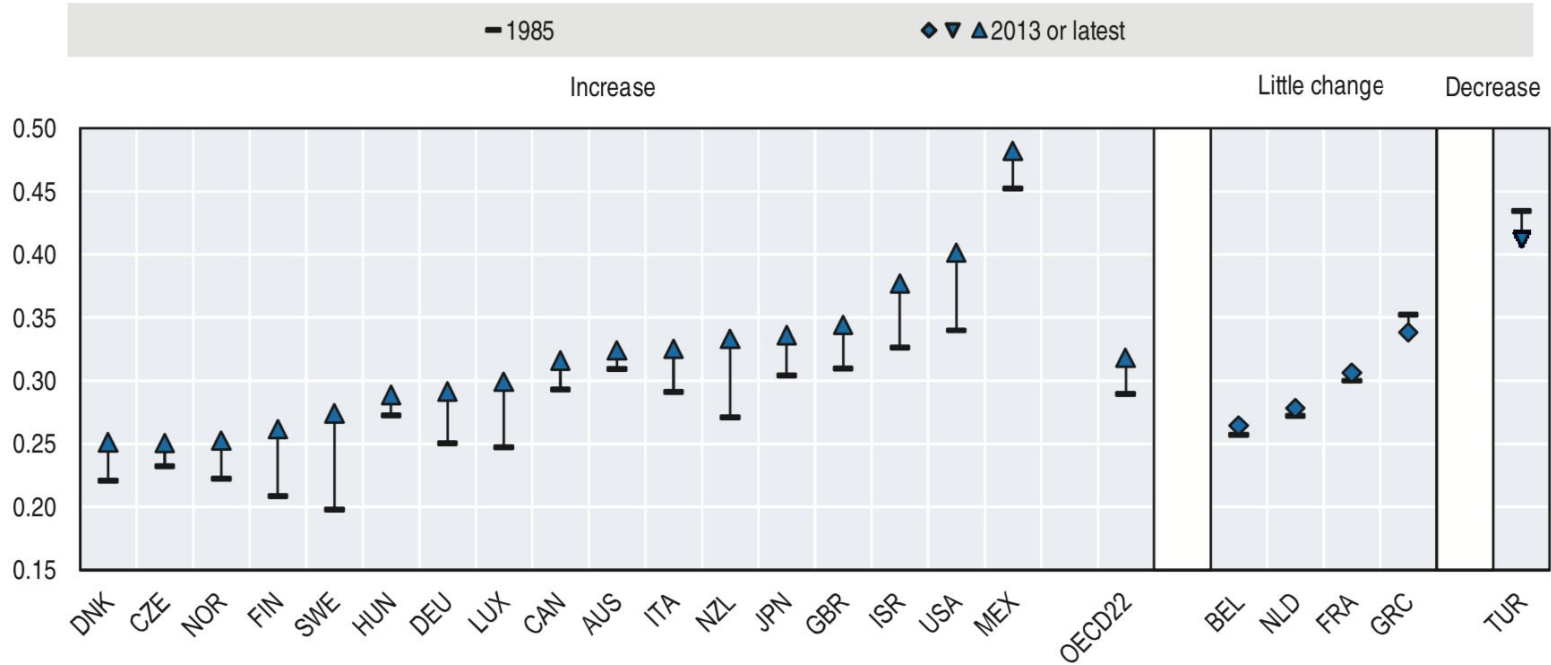
Figure 3.
**Income Distribution Measures and Percent Change Using Money Income
 and Equivalence-Adjusted Income**



There was a statistically significant decrease in the Gini between 2017–2018.

Figure 1.3. Income inequality increased in most OECD countries

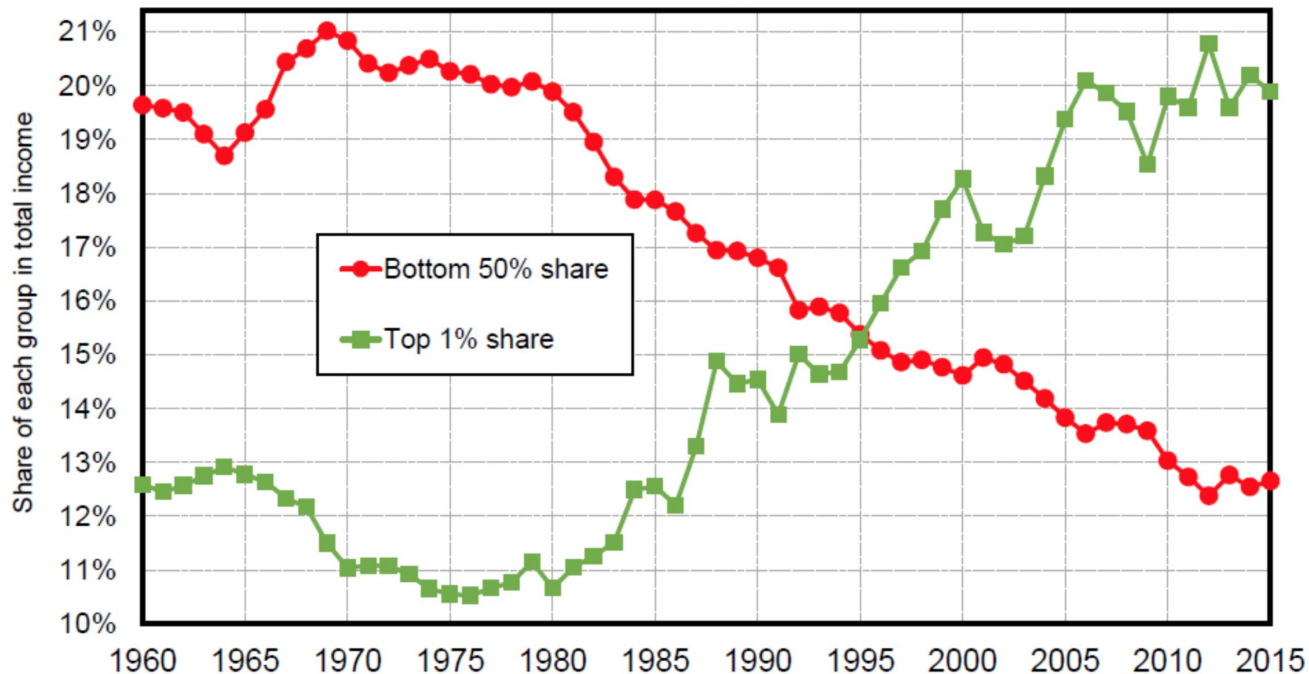
Gini coefficients of income inequality, mid-1980s and 2013, or latest available year



Source: [OECD \(2015\)](#)

Inequality Increased More in the US than in Europe

The fall of the bottom 50% share: U.S. 1960-2015



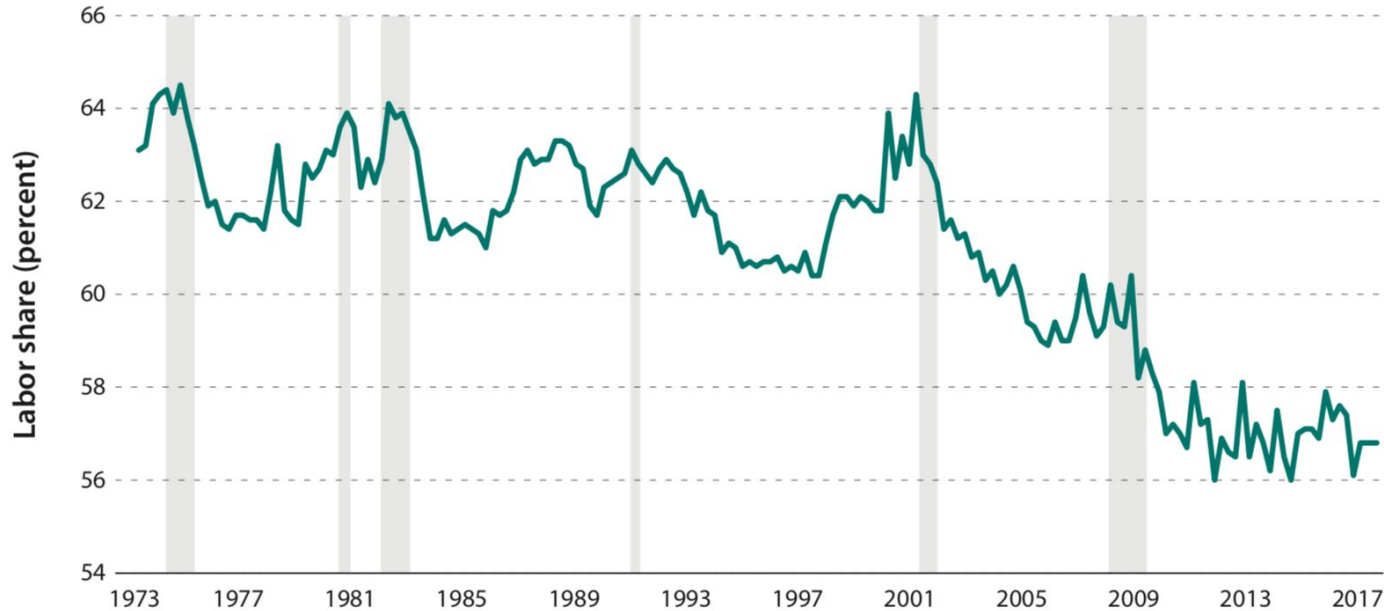
Interpretation. The share of the bottom 50% lowest incomes in the U.S. dropped from about 20% of total income in the 1970s to about 12%-13% in the 2010s. Over the same period, the share going to the top 1% highest incomes rose from 11% of total income to 20%-21%. **Sources and series:** see piketty.pse.ens.fr/ideology (figure 11.5).

Source: [Piketty \(2020\) \(slide 22\)](#)

Income Share of Top 1% vs. Bottom 50%, 1960–2015

FIGURE 1.

Labor Share of Income, 1973–2017



“The labor share (share of revenues used to pay wages) has continuously declined since the 1980s.

“In manufacturing, almost 50% of wages were used to pay workers in 1982; it had fallen to about 10% in 2012.”

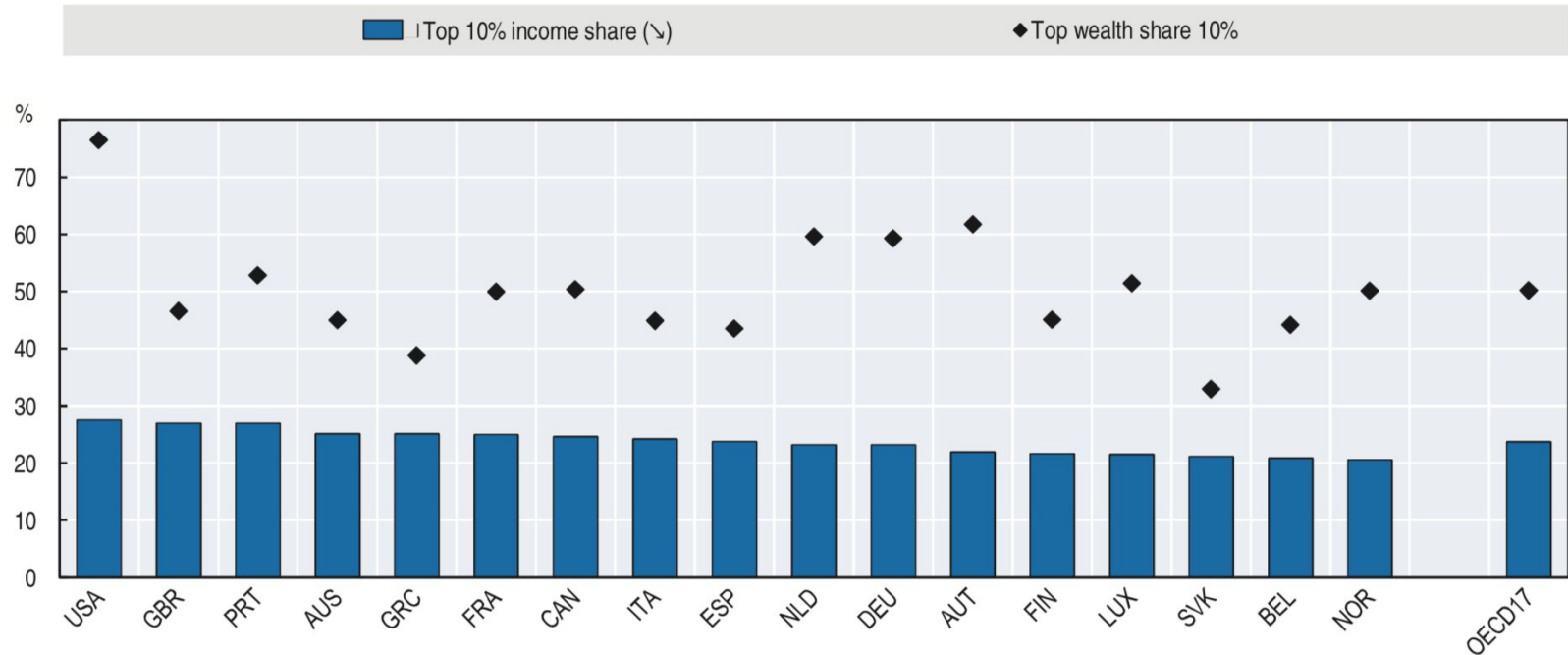
– Banerjee & Duflo (2019), p. 239

Labor Share of Income, 1973–2017

Sources: [Brookings \(2017\)](#); Banerjee & Duflo (2019)

Figure 1.10. Wealth is more concentrated at the top than income

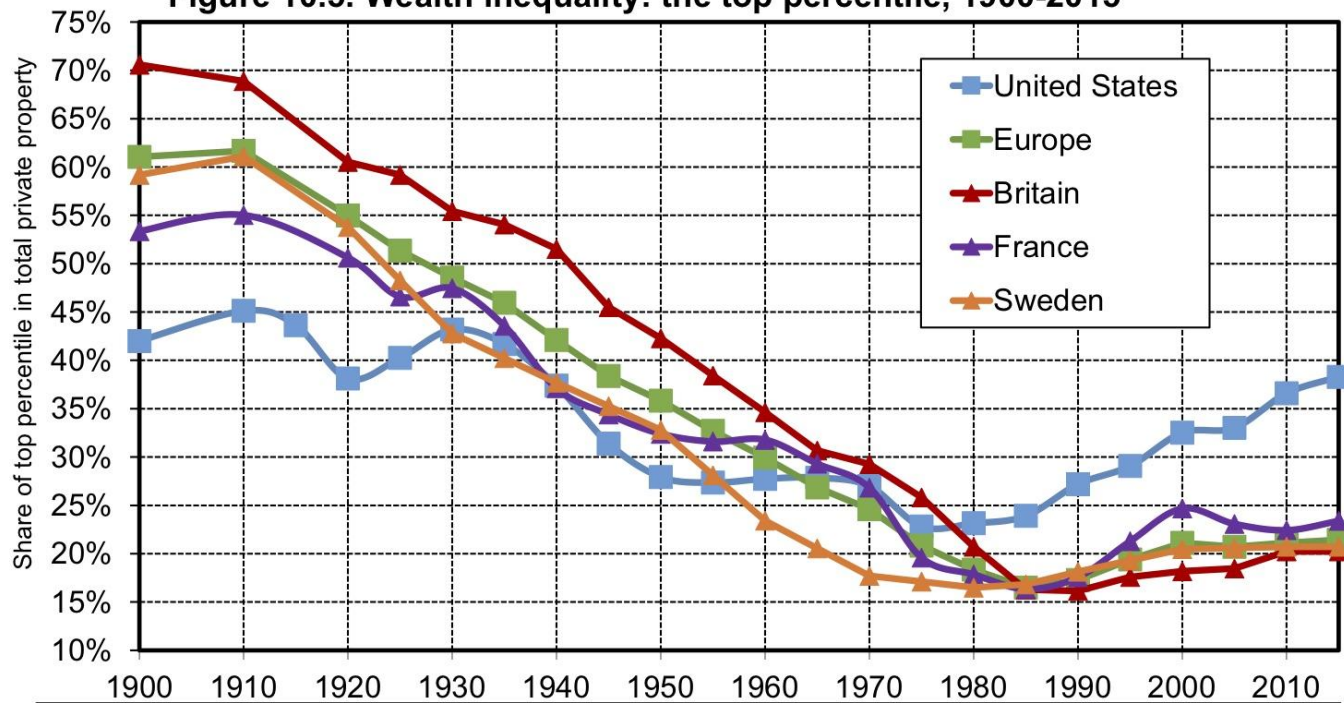
Share of top 10% of household disposable income and top 10% of household net wealth, 2012 or latest available year



Wealth is More Concentrated than Income

Source: [OECD \(2015\)](#)

Figure 10.5. Wealth inequality: the top percentile, 1900-2015

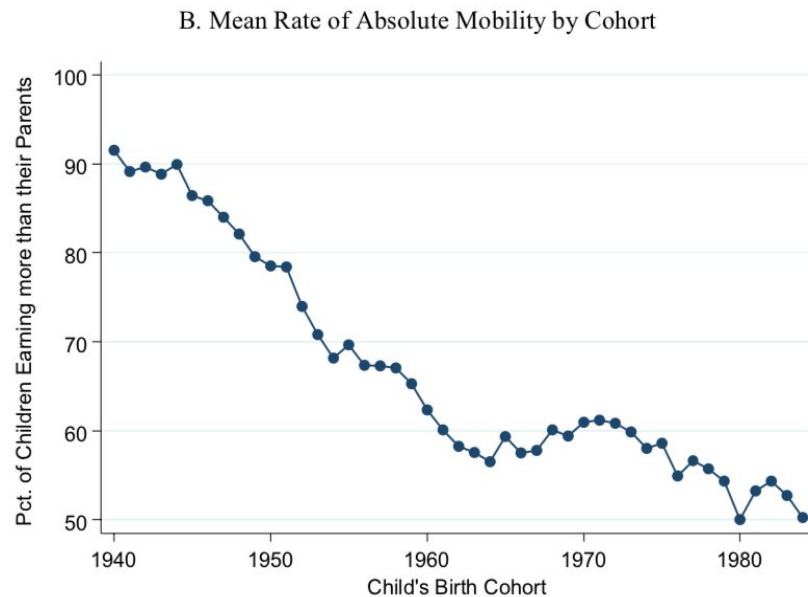
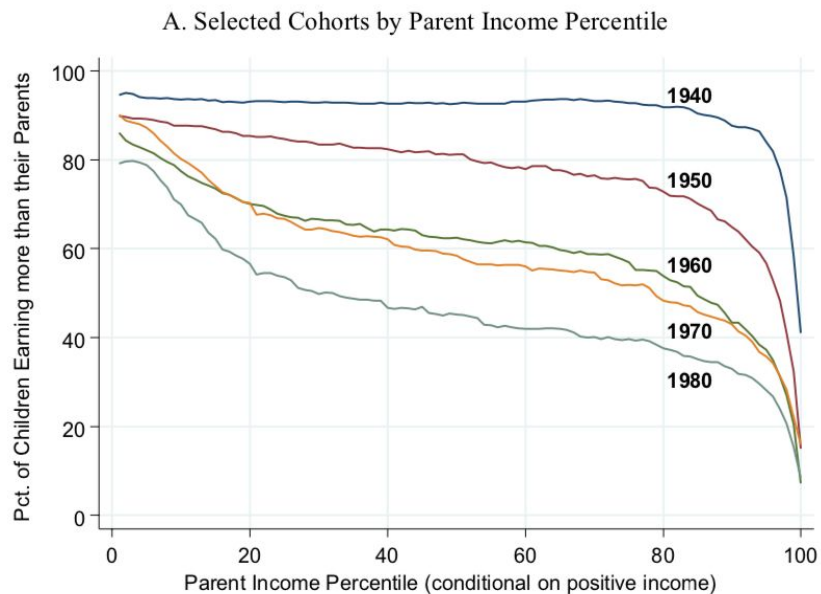


Interpretation. The share of the top percentile (the 1% highest wealth holders) in total private property (all assets combined) was about 60% in Western Europe in 1900-1910 (55% in France, 70% in Britain), before dropping to less than 20% in 1980-1990, and to rise since then. The rebound of inequality was much stronger in the U.S., where the top percentile share approaches 40% in 2010-2015 and is close to the level of 1900-1910. **Sources and series:** see piketty.pse.ens.fr/ideology.

Sources: [Piketty \(2020\)](#)

Wealth Inequality in Advanced Economies

Figure 1. Baseline Estimates of Absolute Mobility by Birth Cohort

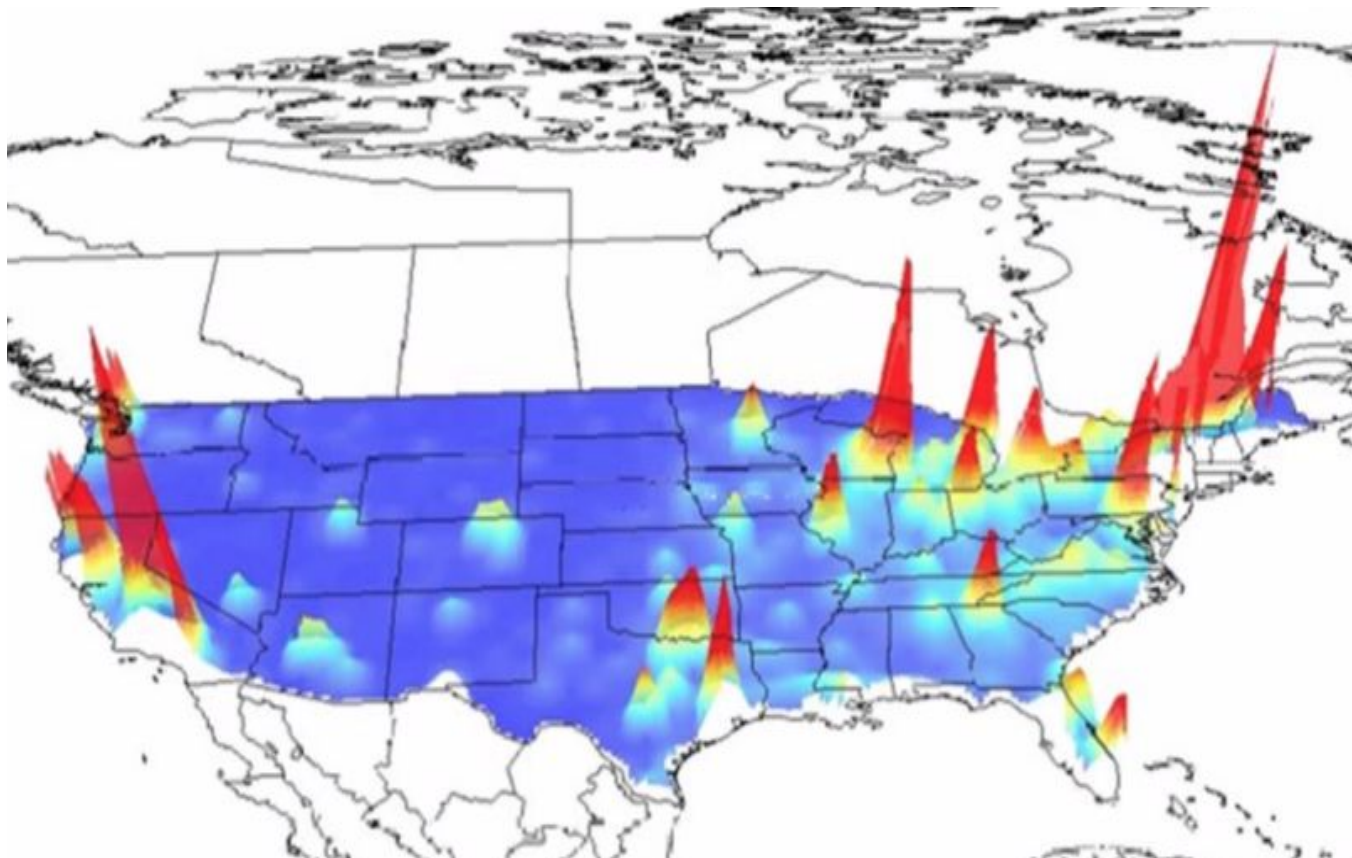


Social mobility is on average lower in the U.S. than in other countries. The probability of a child from the bottom quintile remaining in the bottom quintile is highest in the U.S. (33.1%), lower in Continental Europe (below 30%), and lowest in Sweden (26.7%). The probabilities of moving from the bottom to the fourth or fifth quintiles are also lowest in the U.S.. **The probability of moving to the top quintile is 7.8% in the U.S., but close to 11% on average in Europe.**

– Chetty et al. (2016)

2. Inequality is becoming regional

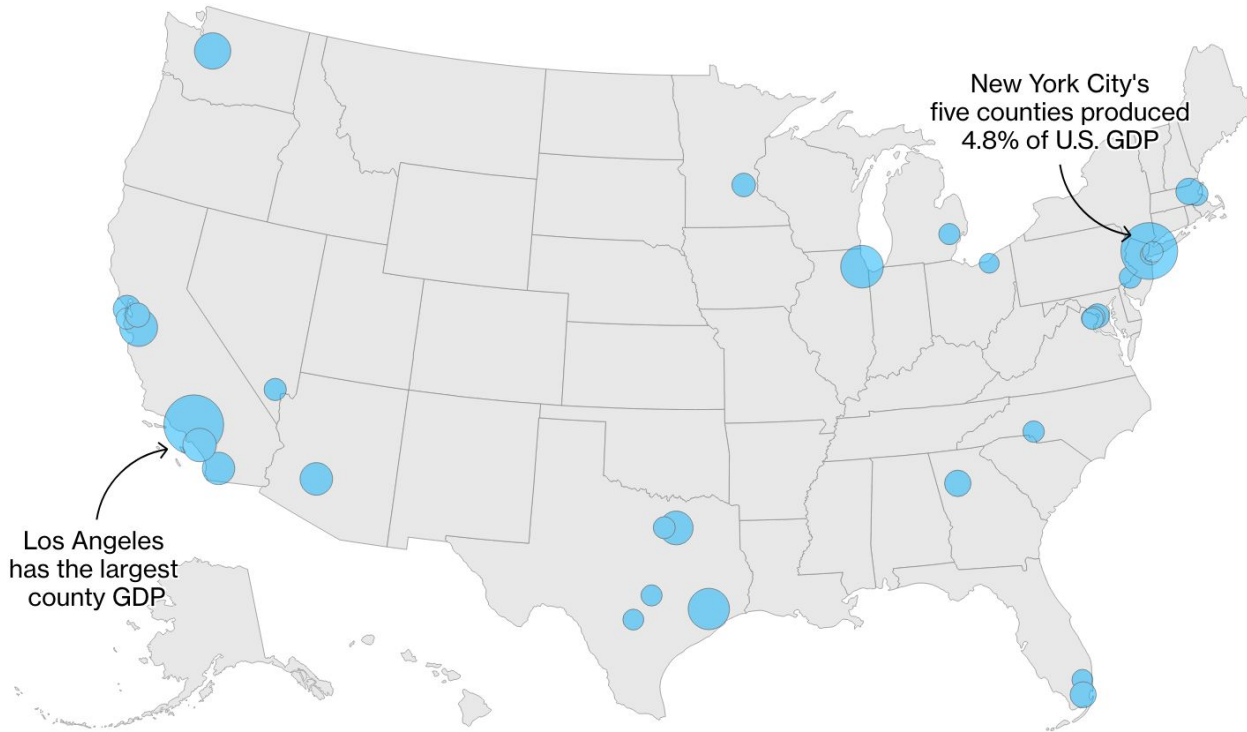
- Leading regions include the coasts and urban areas. Lagging regions include parts of the Midwest and the South.
- The disparity between leading and lagging regions is higher in the US than in other advanced economies.
- Mobility is higher in leading regions.



GDP per km², 2013

Source: [Moretti \(2013\)](#)

● Share of U.S. 2018 GDP



In 2018, only 31 counties accounted for >32% of US GDP.

New York City accounted for 4.8%.

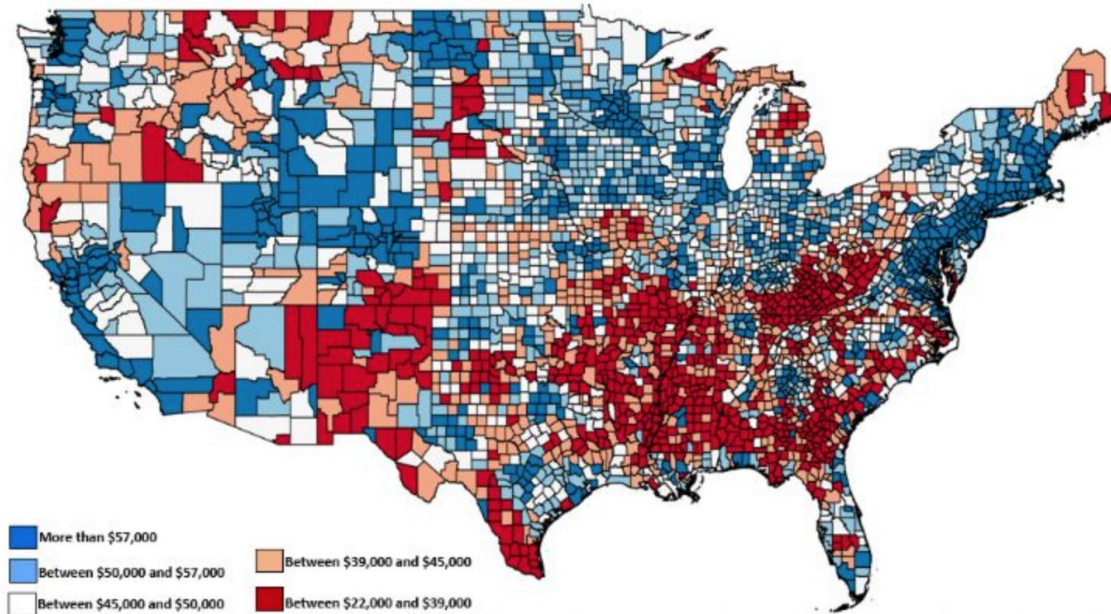
Los Angeles accounted for 3.8%.

Percent Contribution to U.S. GDP, 2018

Source: [Tartar and Pickert \(2019\)](#)

Mapping inequality

Changes in global trade and technology have shifted jobs and industries on the map, but the economic gains are not well shared.



Sources: OECD Regional Database, U.S. Census Bureau, and IMF staff estimates.

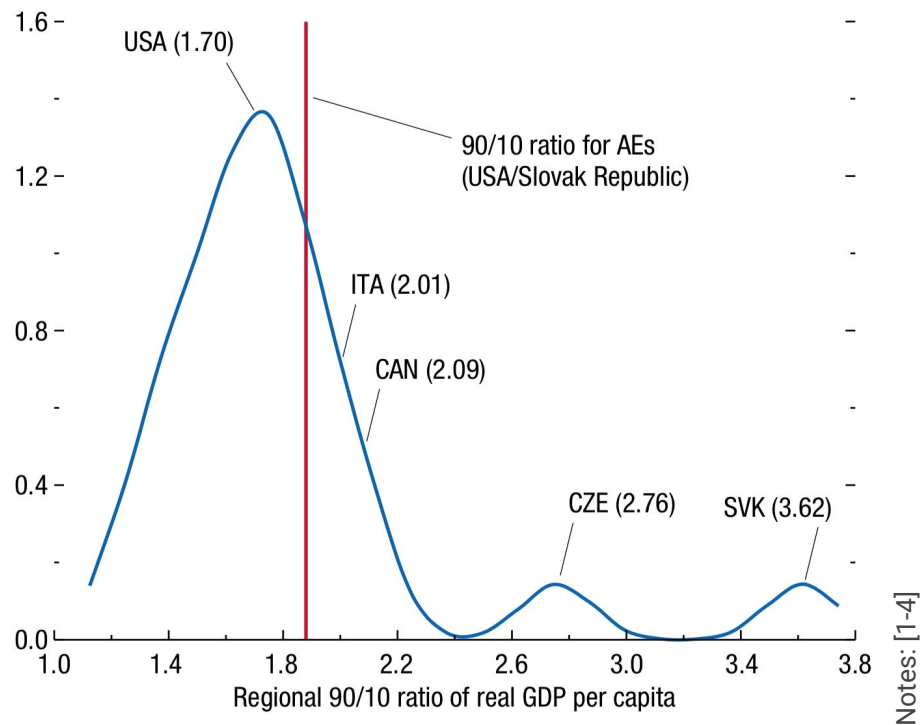
Note: Legend represents median household income 2016

Median Household Incomes (2016)

Source: [Gbohoui, Lam, and Lledo \(2019\)](#)

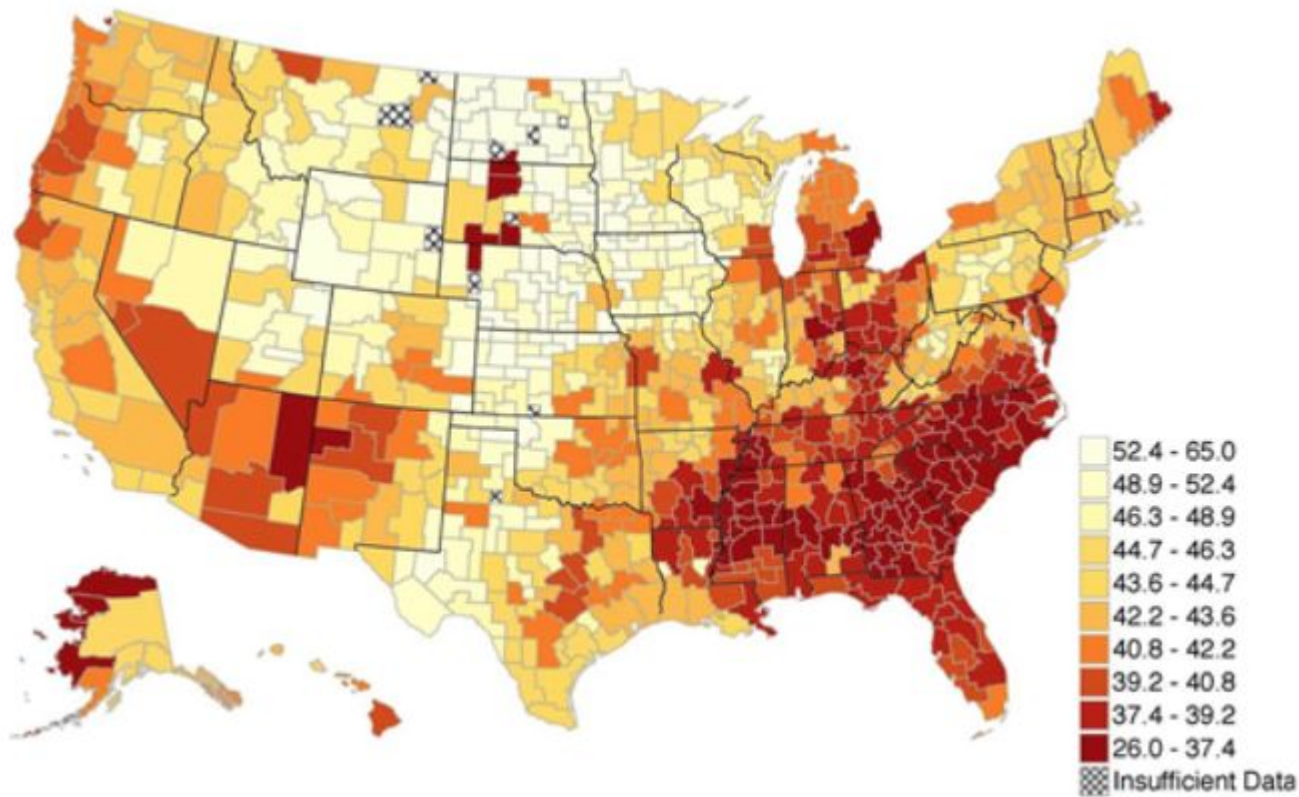
Figure 2.2. Distribution of Subnational Regional Disparities in Advanced Economies

(Density, 2013)



“Many advanced economies have larger within-country regional disparities than exist between advanced economies.”

— IMF *World Economic Outlook*, October 2019



Lighter colours represent areas where children from low-income families are more likely to move up in the income distribution.

Notes: [1-2]

Source: [Chetty et al. \(2014\)](#)

II. Causes of Rising Inequality in the US

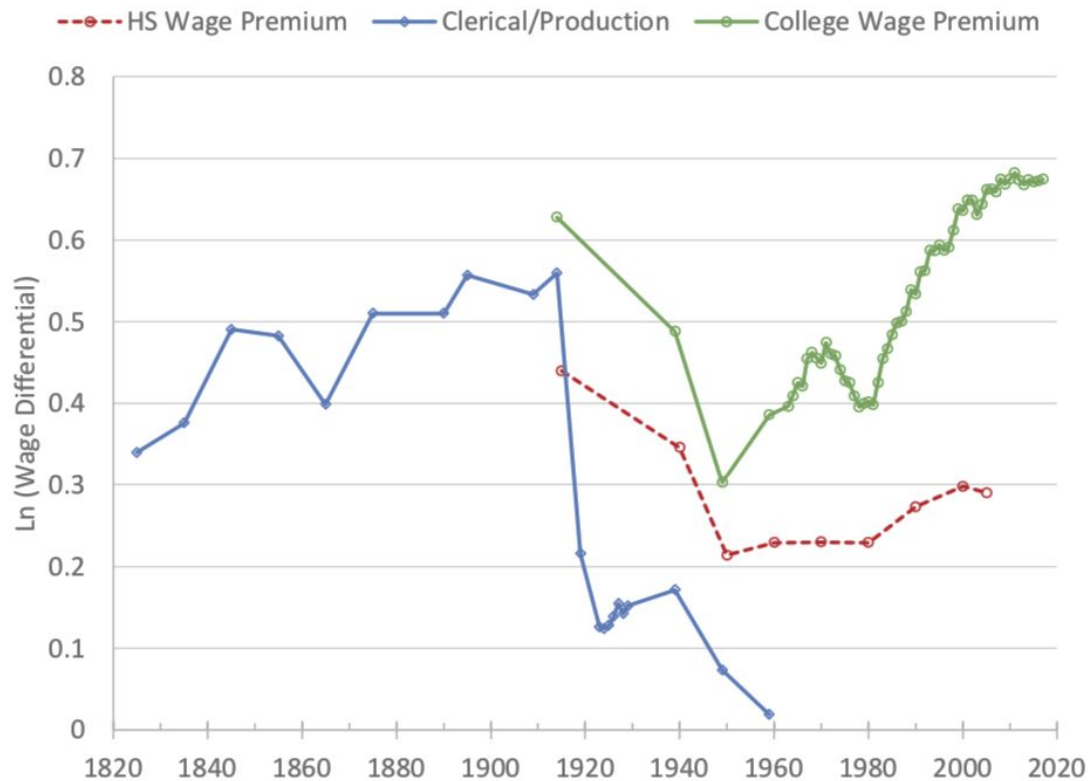
1. Technology

- (1) ICT revolution and automation:
 - “Technological progress was to a large extent skewed against the less qualified.”
 - “Skill-biased technological change clearly explains the increase in the return to college education.”
 - “Digitization . . . will make workers with ‘ordinary’ skills increasingly redundant.”
 - “Highly educated workers who . . . can program and install the robots will become more and more valuable.”
 - “45% of US jobs are at risk of being automated.”

— Banerjee & Duflo (2019), p. 240, 228-229

- (2) Agglomeration/Clustering: Highly skilled workers are more productive around other highly skilled workers.
- (3) “Superstar firms” and winner-take-all products (B&D 2019, p. 241).

Figure 1: Educational and Occupational Wage Differentials: 1825 to 2017



Educational and Occupational Wage Differentials, 1825–2017

Source: Autor, Goldin, and Katz (2020)

FIGURE 3A.

Bachelor's Degree and Advanced Degree Wage Premiums, 1979–2016

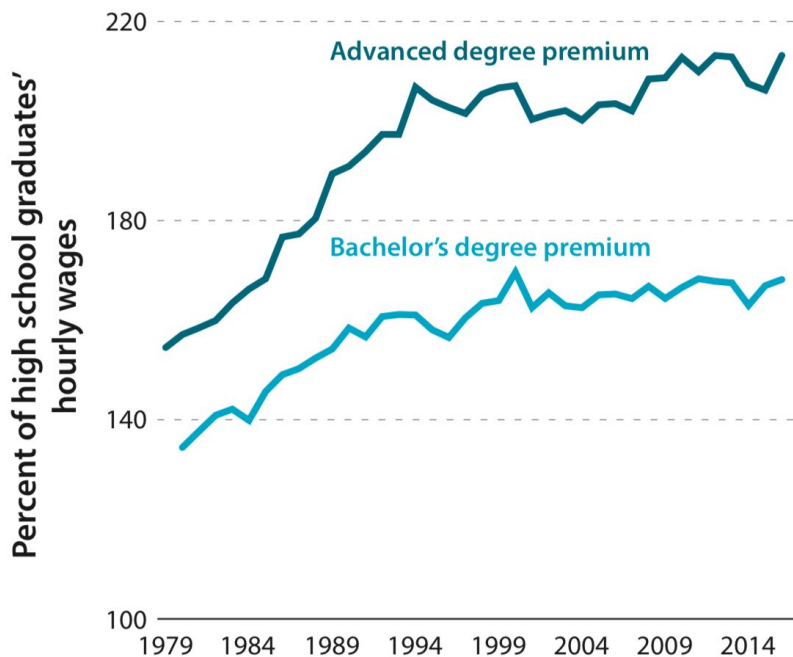
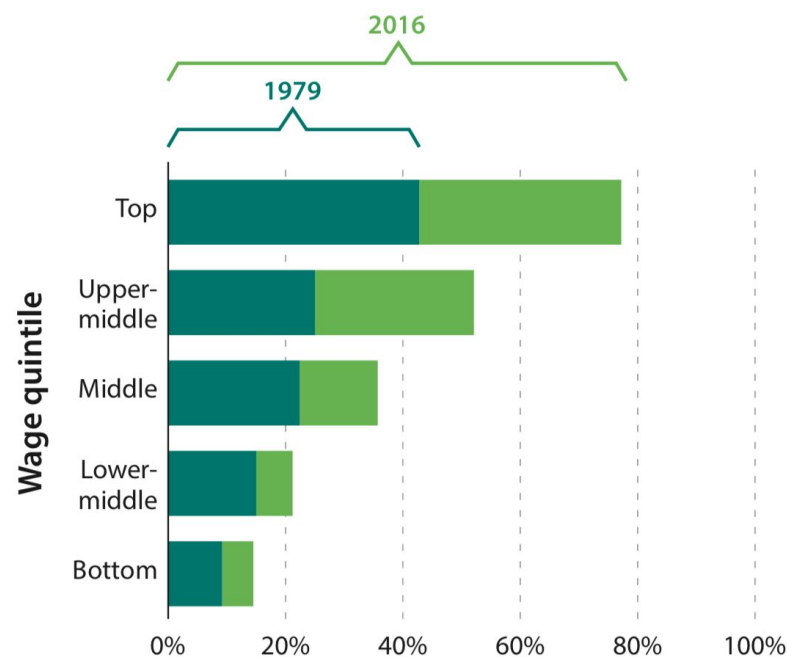


FIGURE 3B.

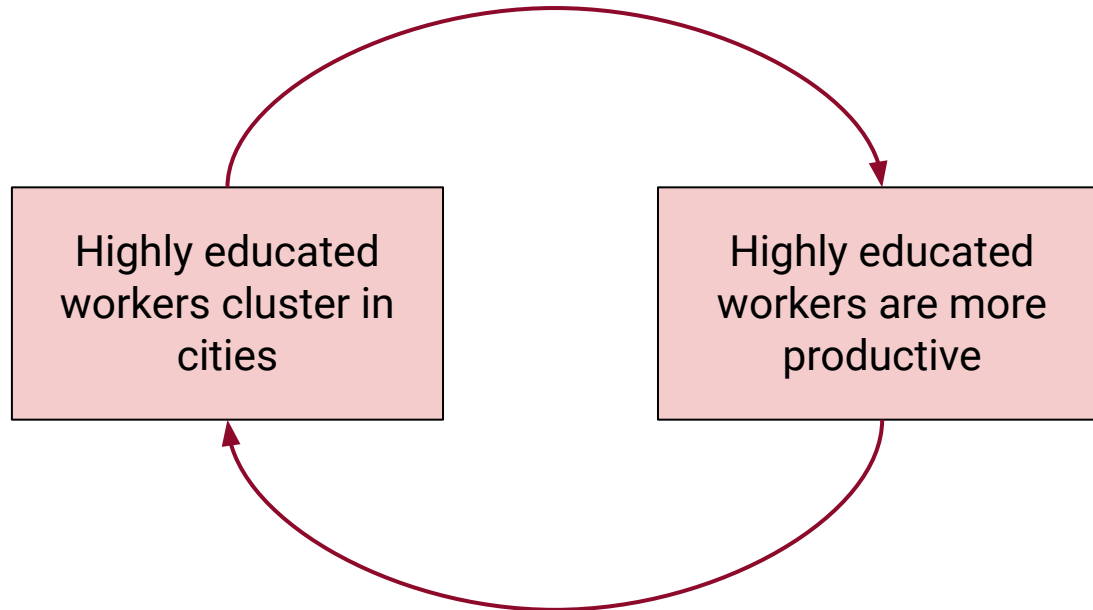
Share of Income Quintile with a Four-Year Degree, 1979 and 2016



Source: [Brookings \(2017\)](#)

Wage Premiums for Post-Secondary Education, 1979–2016

Why? Human Capital and Agglomeration



Sources: [Atkinson, Muro, and Whiton \(2019\)](#); [Collier \(2019\)](#); [Moretti \(2013\)](#)

The Royal Swedish Academy of Sciences has decided to award The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2008 to Paul Krugman (Princeton University) for his analysis of trade patterns and location of economic activity:

“Economies of scale combined with reduced transport costs also help to explain why an increasingly larger share of the world population lives in cities and why similar economic activities are concentrated in the same locations. Lower transport costs can trigger a **self-reinforcing process** whereby a growing metropolitan population gives rise to increased large-scale production, higher real wages and a more diversified supply of goods. This, in turn, stimulates further migration to cities. Krugman’s theories have shown that the outcome of these processes can well be that regions become divided into **a high-technology urbanized core and a less developed ‘periphery.’**”

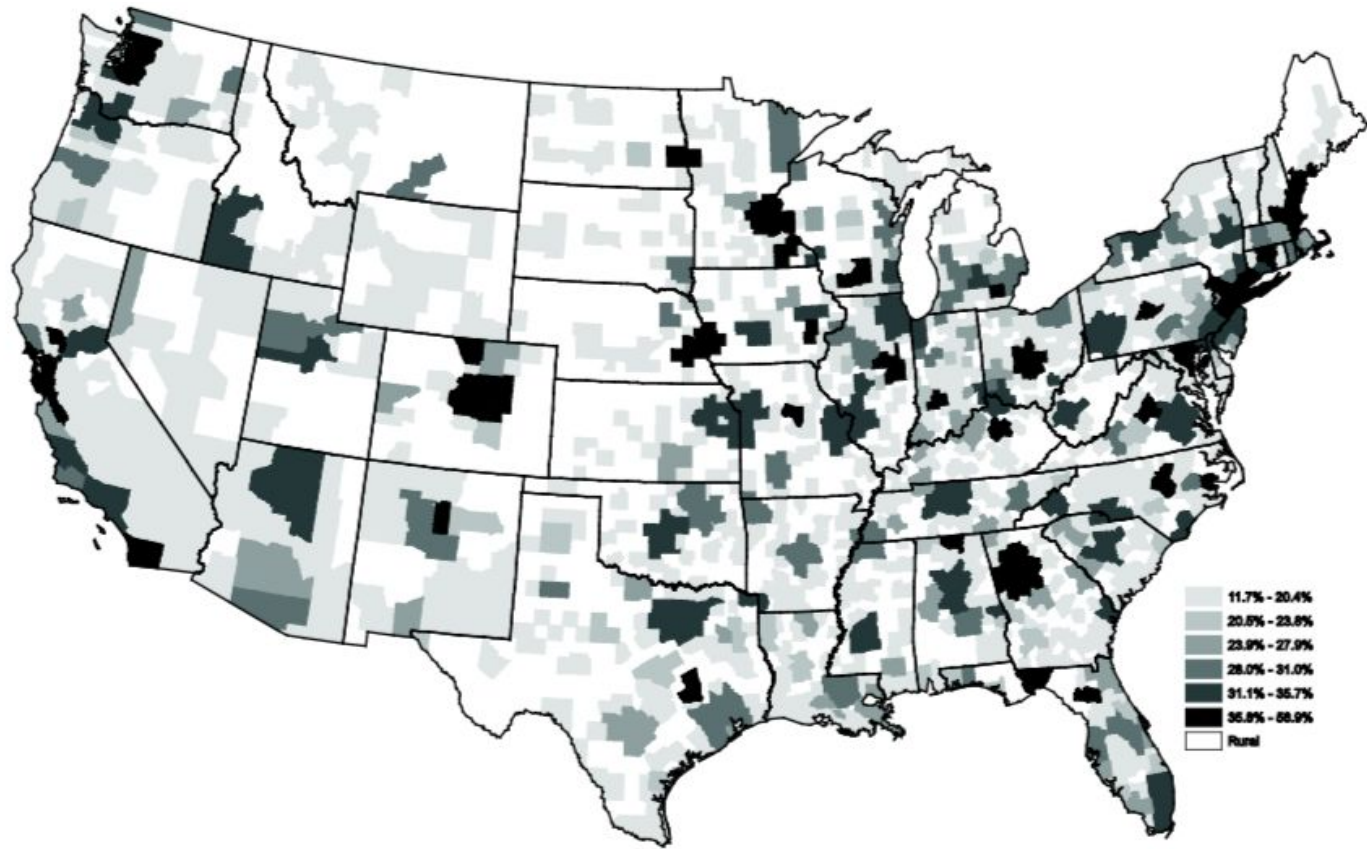


Figure 2-E.

Source: [Moretti \(2013\)](#)

Share of Workers with a College Degree (2013)

College graduates cluster in and earn more in wealthier cities.

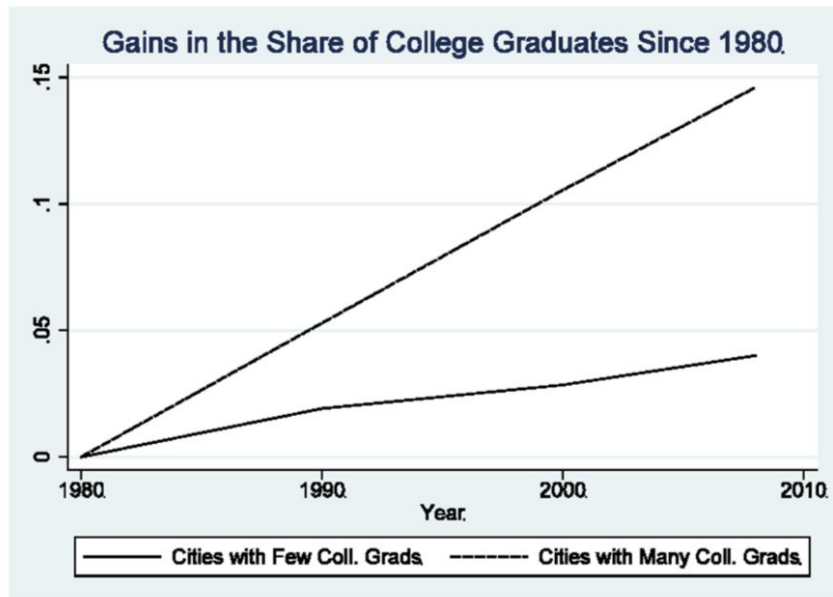


Figure 2-F.

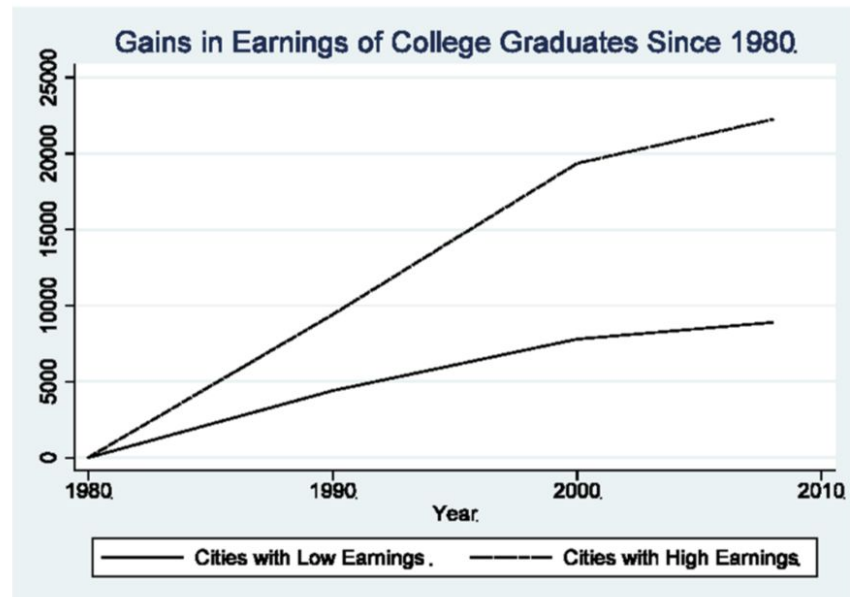


Figure 2-G.

Source: [Moretti \(2013\)](#)

College graduates raise the wages of all workers—even those without a college degree.

	Percent with College Degree	Salary of College Graduates	Salary of High-School Graduates
Washington, DC	49%	\$80,872	\$67,140
Boston	47%	\$75,173	\$62,423
San Francisco	47%	\$77,381	\$60,546
Raleigh	44%	\$63,745	\$50,853
Seattle	42%	\$68,025	\$55,001
Austin	41%	\$62,289	\$48,809

	Percent with College Degree	Salary of College Graduates	Salary of High-School Graduates
Flint, MI	12%	\$43,866	\$28,797
Visalia, CA	12%	\$55,848	\$29,335
Yuma, AZ	11%	\$52,800	\$28,049
Merced, CA	11%	\$62,411	\$29,451

Figure 2-H.

Source: [Moretti \(2013\)](#)

Percent of Workers with a College Degree (2013), Example Cities

2. Trade

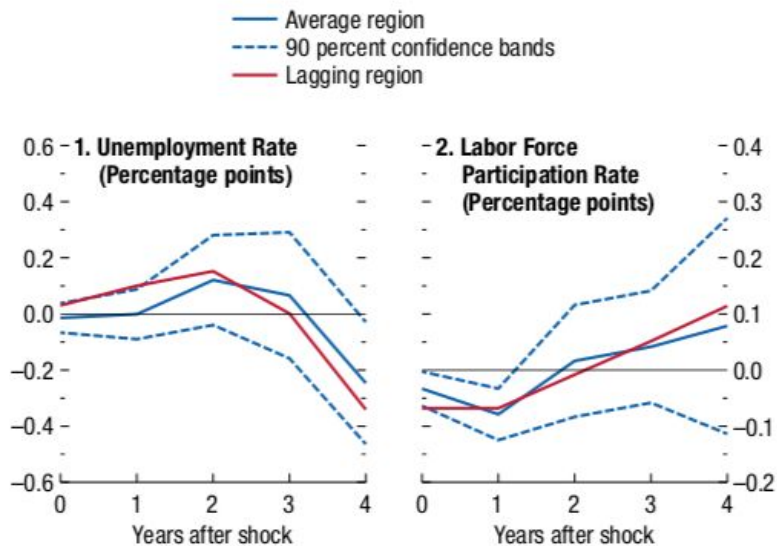
- Globalization and the “China shock.”
- Downward Spiral: “The *total* number of jobs lost was often larger than merely the number of jobs lost in the industries that were hit.”
- Labor markets are sticky: “There was *no* reallocation of labor to new kinds of jobs.” People are slow to move to areas where there are more economic opportunities, and retraining/reskilling takes time.

– Banerjee & Duflo (2019), p. 80-83

Technology More Than Trade

Figure 2.10. Regional Effects of Import Competition Shocks

Greater competition in external markets tends to raise unemployment in the near term for exposed regions, with little difference between lagging and other regions. But this rise unwinds as regions adjust relatively quickly.



“Shocks from increasing import competition . . . **do not have marked average effects on regional unemployment in a broad sample of advanced economies.** [A]lthough they do tend to reduce labor force participation after one year, . . . this quickly abates.”

— IMF (2019)

Notes: [3-1]

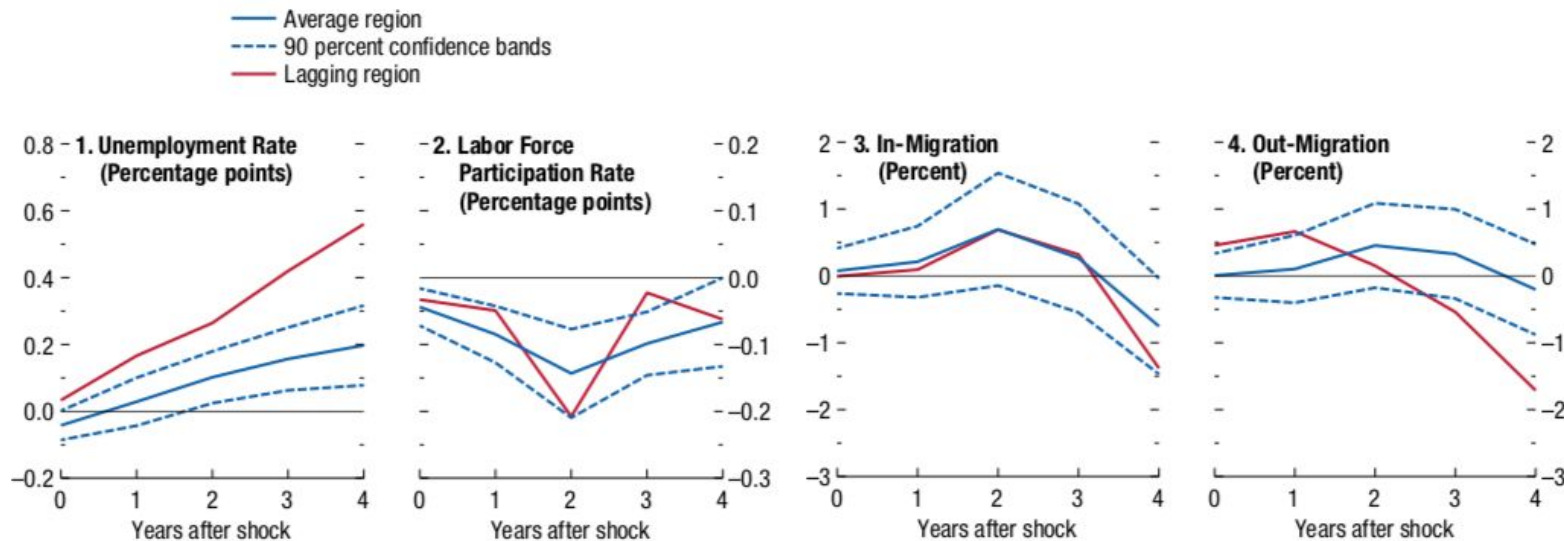
Technology More Than Trade

Figure 2.11. Regional Effects of Automation Shocks

Falling machinery and equipment prices tend to raise unemployment in regions where production is more vulnerable to automation, with exposed lagging regions hurt even more. Out-migration stalls or drops for more exposed lagging regions.

“By contrast, adverse shocks to local labor demand arising from **technological change have noticeable and persistent effects on labor markets.**”

— IMF (2019)



Notes: [3-2]

3. Tax Policy

- Mathematically, wealth concentrates: $r > g$ (Piketty 2014).

“Very wealthy people do not consume the vast majority of the income they derive from their wealth. Instead, they take a small fraction of the wealth income in the form of a dividend, and they plow the rest back into . . . whatever structure has allowed their wealth to accumulate. . . . Moreover the tax advantage gets compounded. The new wealth generates new investment income.”

– B&D (2019), p. 253

* Note: Piketty’s theories are not uncontested. Watch the PBS Newshour clip “[Debating Piketty's theories](#)” (10 min) for a quick summary of the debate.

- The rise of “supermanagers” (Piketty 2014) and financiers (B&D 2019, p. 244).

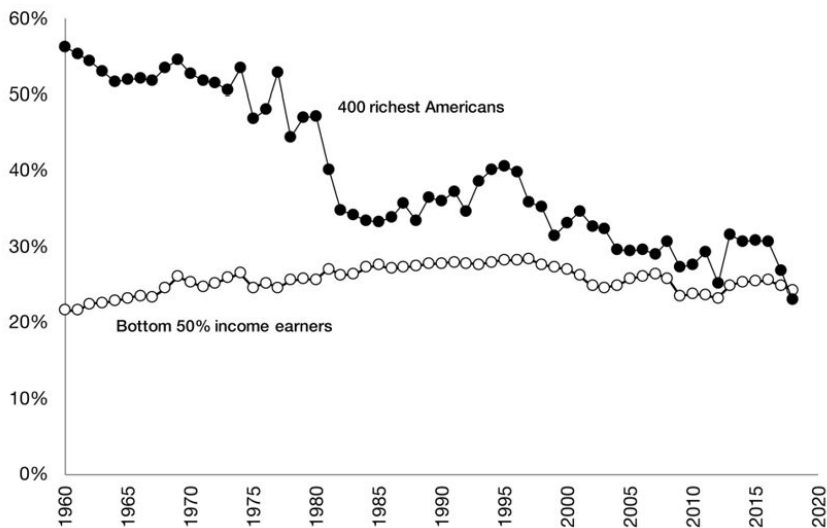
3. Tax Policy

- Homoplutonia: More and more, the people who make the highest incomes from capital are the same people who make the highest incomes from labor (Milanovic 2019).
- 1980s tax cuts under Reagan.
- Taxes can be raised:

“Saez . . . concludes that real work effort does not respond to top tax rates, although effort to evade or avoid taxes does.” (B&D 2019, p. 250)
- Political capture (Boushey 2019).

1.4 US BILLIONAIRES NOW PAY LOWER TAX RATES THAN THE WORKING CLASS

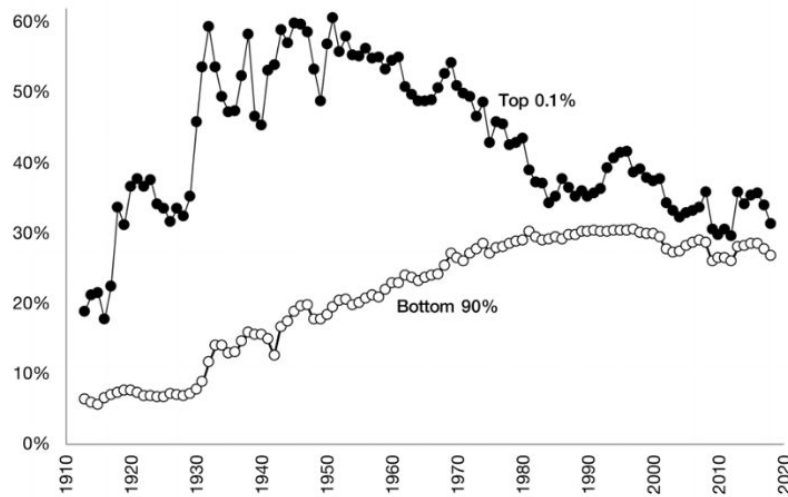
(Average tax rates: bottom 50% income earners vs. 400 richest Americans)



Notes: The figure depicts the average tax rate for the 50% of adults with the lowest incomes and for the top 400 highest earners since 1960. Tax rates are expressed as a fraction of pre-tax income. Before the 1980s, the very top paid much more than the bottom 50%. In 2018, for the first time, the bottom 50% has paid more than the top 400. Complete details at taxjusticenow.org.

2.2 THE AVERAGE TAX RATE FOR THE RICH UNDER EISENHOWER? 55%

(Average tax rates: top 0.1% versus bottom 90% income earners)

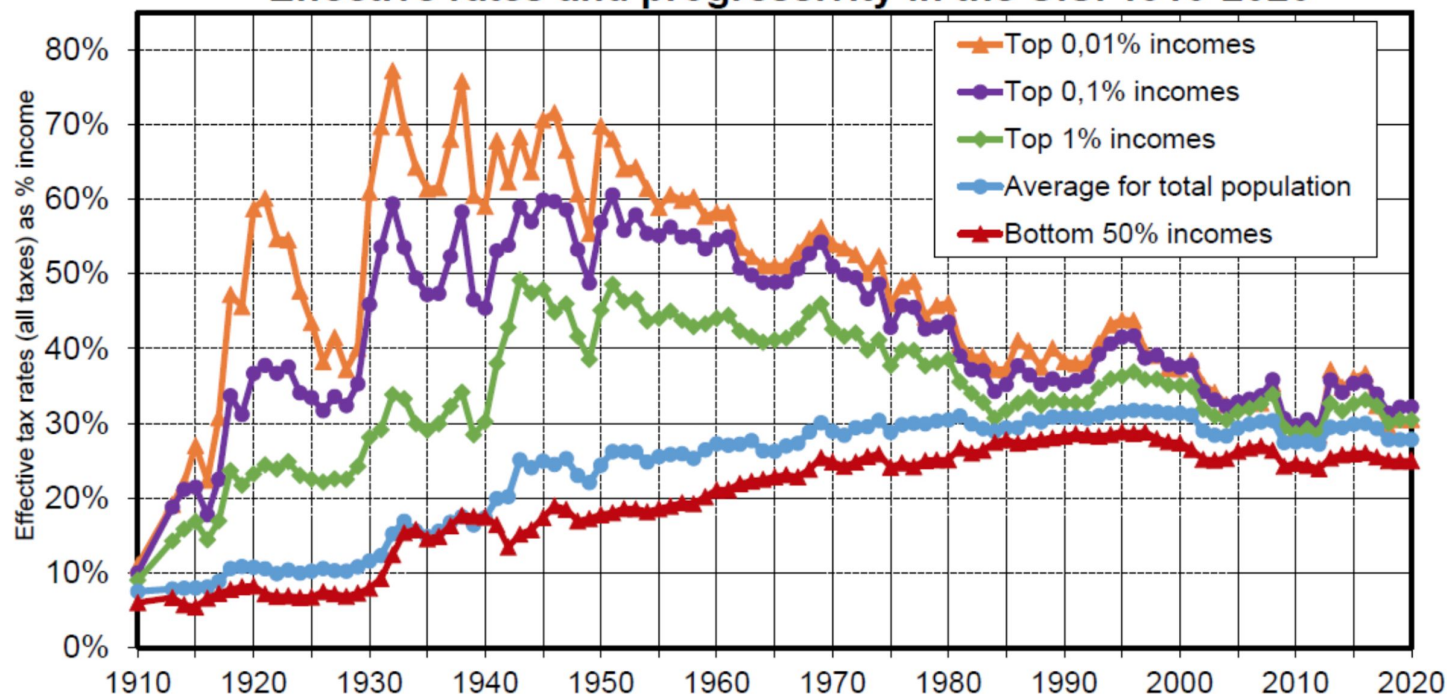


Notes: The figure depicts the average tax rate for the bottom 90% and for the top 0.1% income earners since 1913. Taxes include all taxes at all levels of government (federal, state, and local). Tax rates are expressed as a fraction of pre-tax income. Historically, the United States had a progressive tax system with the top 0.1% earners paying much more than the bottom 90%. In recent years, the bottom 90% has paid almost as much as the top 0.1%. Complete details at taxjusticenow.org.

Changes in Average Tax Rates (1913–2018)

Source: Saez and Zucman (2019)

Effective rates and progressivity in the U.S. 1910-2020



Interpretation. From 1915 to 1980, the tax system was highly progressive in the U.S., in the sense that effective tax rates paid by the highest income groups (all taxes included, and as % of pretax income) was significantly larger than the average effective tax rate paid by the total population (and particularly by the bottom 50% incomes). Since 1980, the tax system has not been very progressive, with little differences in effective tax rates across groups. **Sources and series:** see piketty.pse.ens.fr/ideology (figure 10.13).

Source: [Piketty \(2020\) \(slide 15\)](#)

Tax Progressivity in the US, 1910–2020

4. Socioeconomic Segregation

- Homogamy:

“If educated, highly skilled, and affluent people tend to marry each other, that by itself will tend to increase inequality. About one-third of the inequality increase in the United States between 1967 and 2007 can be explained by assortative mating. For countries in the OECD, assortative mating accounted for an average of 11 percent of increased inequality between the early 1980s and early 2000s.”

– Milanovic (2019)

III. Solutions

Possible Solutions

1. **Tony Atkinson's 15 Proposals to Reduce Inequality**
2. **Trade Adjustment Assistance (TAA):** Underfunded and underutilized. Expand this program! (B&D 2019, p. 84–86, 93–97)
3. **Place-Based Policies:** Invest in innovation sectors (e.g., tech) in lagging regions. See The Case for Growth Centers from Brookings (2019).
4. **Measure Inequality in National Statistics** (Piketty et al. 2019)
5. **Redistribution:**
 - a. **Wealth Tax:** Challenges: international cooperation, lobbying, and tax evasion. Can we overcome them? (Saez and Zucman 2019; B&D 2019 p. 251–255)
 - b. **Universal Basic Income (UBI)**

“Tolerating tax evasion is a choice we collectively make, and we can make other choices.”

– Emmanuel Saez and Gabriel Zucman
The Triumph of Injustice (2019)

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