



## National Economic Education Delegation

- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States

- **NEED Presentations**

- Are **nonpartisan** and intended to reflect the consensus of the economics profession

## Credits and Disclaimer

- **This slide deck was authored by:**
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- **Disclaimer**
  - NEED presentations are designed to be nonpartisan
  - It is, however, inevitable that the presenter will be asked for and will provide their own views.
  - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



## Outline

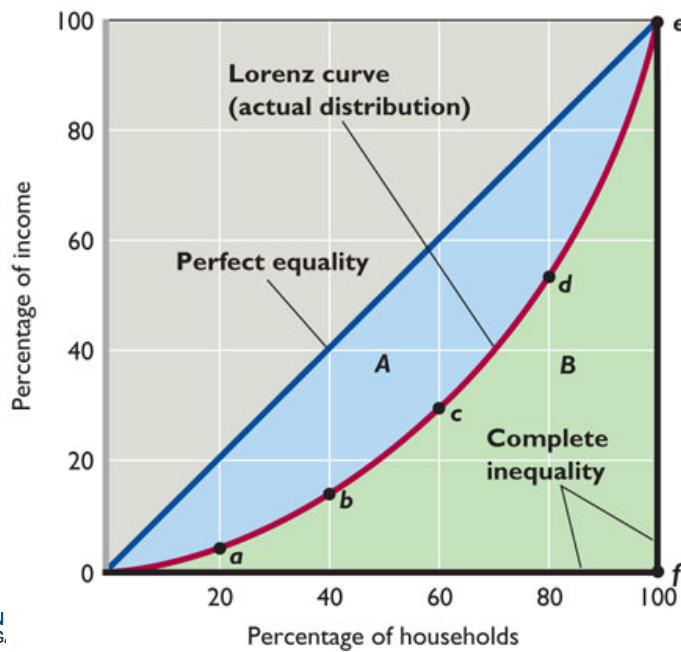
- **How do we measure inequality?**
- **Data and trends on inequality**
- **Causes of inequality**
- **Should we be concerned about inequality?**
- **Potential policies to address inequality**



# Measuring inequality: The Lorenz Curve

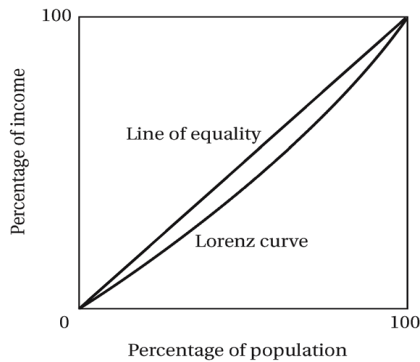
Shows the distribution of income in a region  
 Ex: U.S. Income Distribution - 2008

	Quintile (2008)	% of total income	Cumulative % of total income
A	Lowest 20%	3.4	3.4
B	Second 20%	8.6	12
C	Middle 20%	14.7	26.7
D	Fourth 20%	23.3	50
E	Highest 20%	50	100

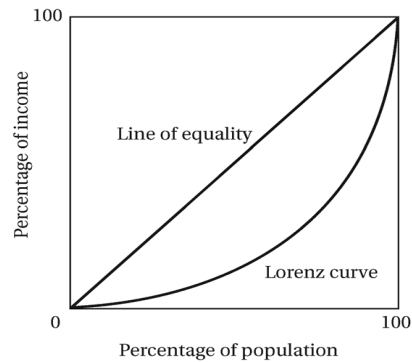




## Lorenz Curve of Income Distribution



(a) A relatively equal distribution



(b) A relatively unequal distribution

The greater the curvature of the Lorenz Curve, the greater is the degree of income inequality



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## Gini Coefficient

- **Another way to describe income inequality is by using a Gini coefficient.**
- **Gini coefficient – a numerical measure of the overall dispersion of income**
  - Ranges from 0 – 1
  - 0= perfect equality – everyone has same income
  - 1=perfect inequality – one person makes all income
  - In practice:
    - 0.5 – 0.7 – highly unequal
    - 0.2 – 0.35 – relatively equal



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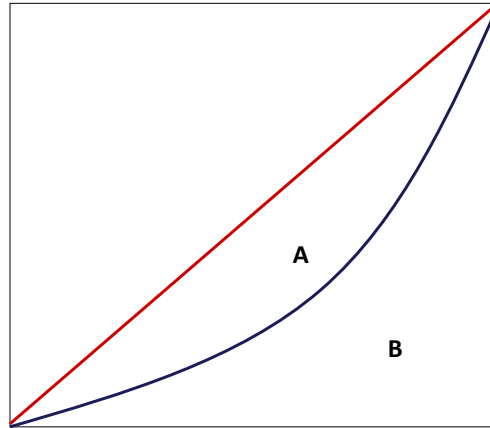
## Using the Lorenz curve to calculate a Gini Coefficient

**Gini coefficient =**  
 $A / (A + B)$

A higher Gini coefficient means greater inequality

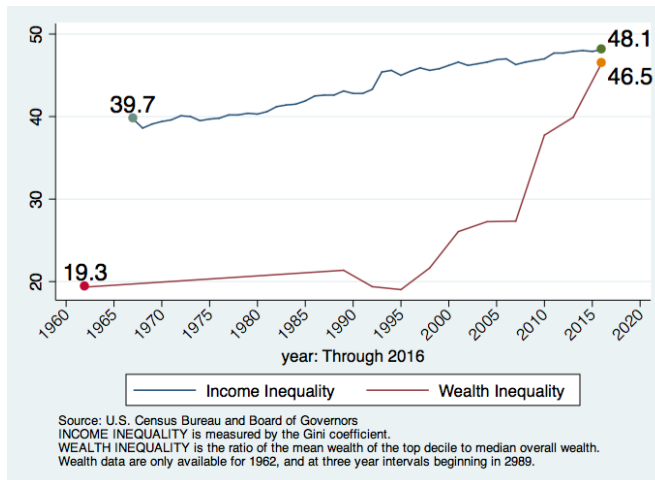
Perfect equality:  
 A=0, Gini=0

Perfect inequality:  
 B=0, Gini = 1



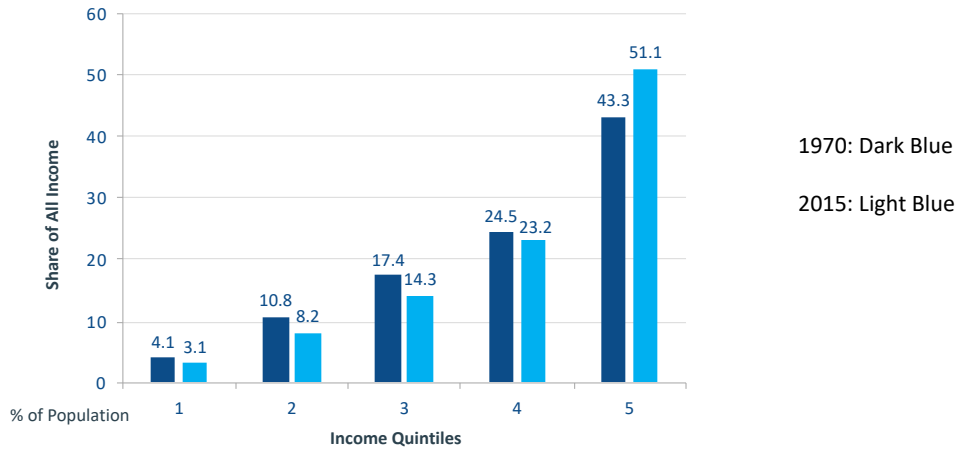
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## Income and Wealth Inequality



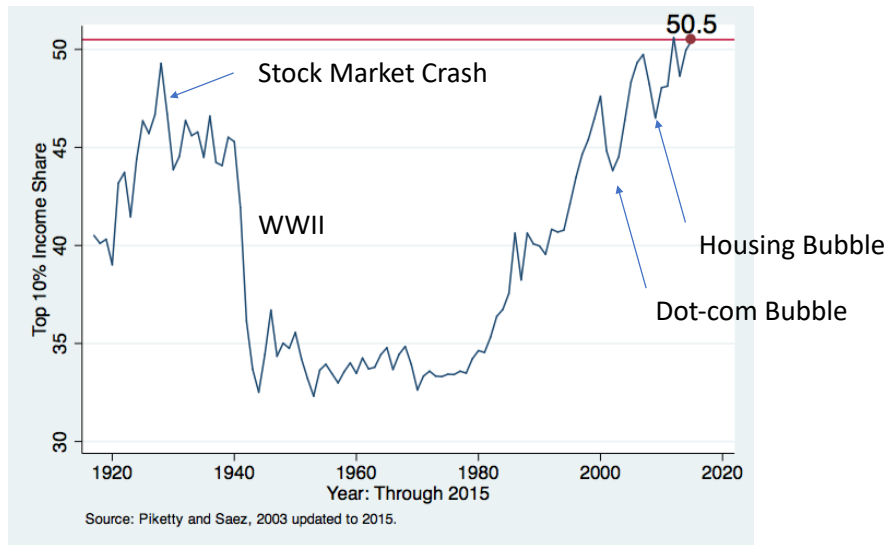
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## Income Share Changes Between 1970 and 2015



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

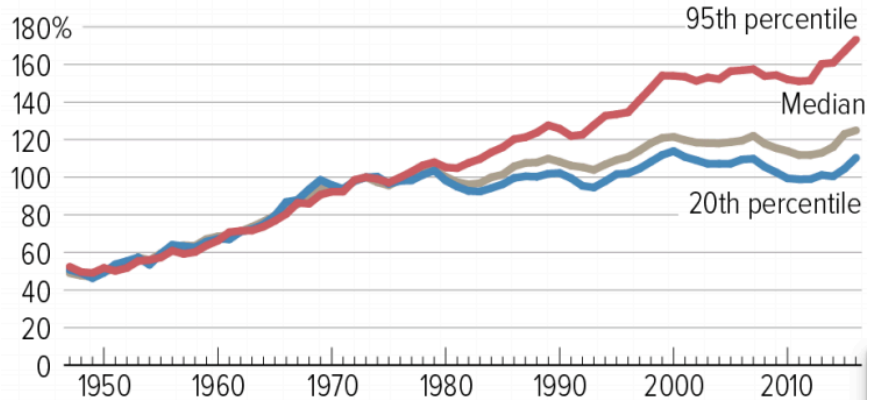
## National Income Inequality: Share of Top 10%



Source: Piketty and Saez, 2003 updated to 2015. Series based on pre-tax cash market income including realized capital gains and excluding government transfers.

## The Abrupt Increase in Inequality

Real family income between 1947 and 2016, as a percentage of 1973 level

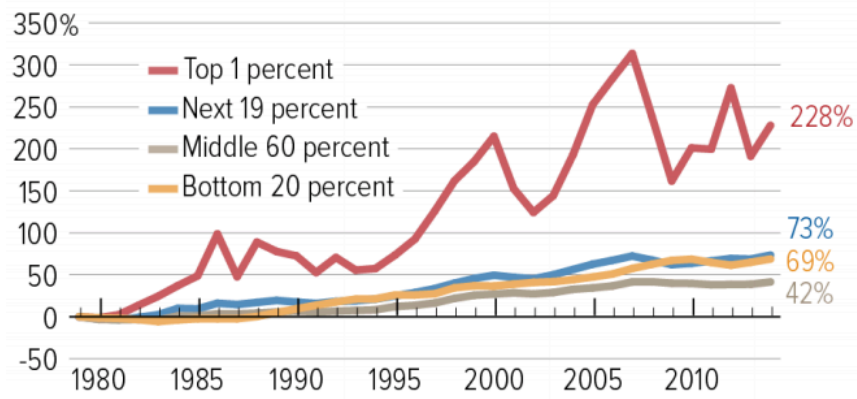


Source: Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, "A Guide to Statistics on Historical Trends in Income Inequality," Center on Budget and Policy Priorities, Policy Futures, May 15, 2018, page 10.

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## Most of the Action Is at the Very Top

Percent change in income after transfers and taxes since 1979

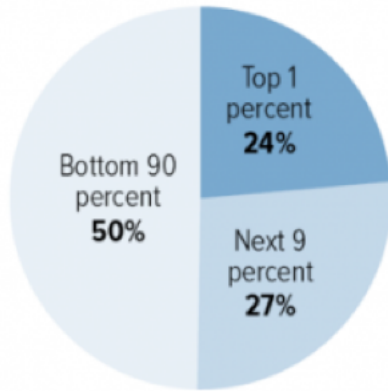


Source: Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, "A Guide to Statistics on Historical Trends in Income Inequality," Center on Budget and Policy Priorities, Policy Futures, May 15, 2018, page 11.

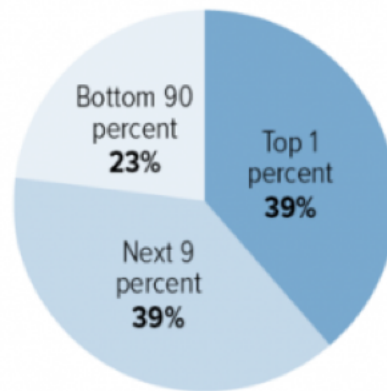
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# Wealth Inequality Exceeds Income Inequality

Distribution of before-tax income, 2016

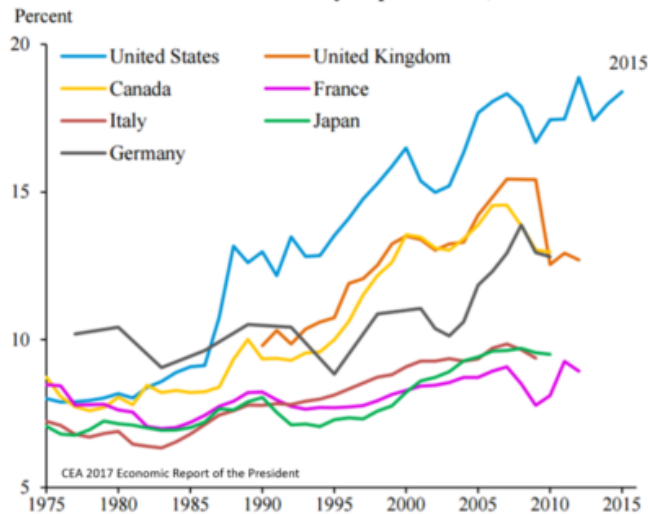


Distribution of wealth, 2016



# An International Comparison

Share of Income Earned by Top 1 Percent, 1975–2015

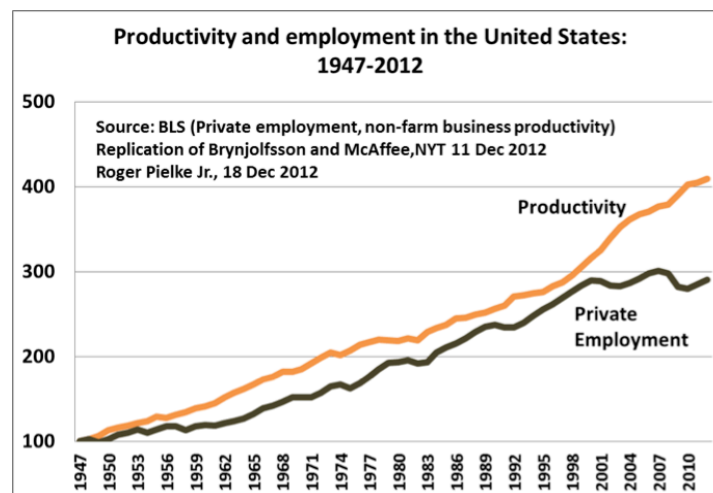




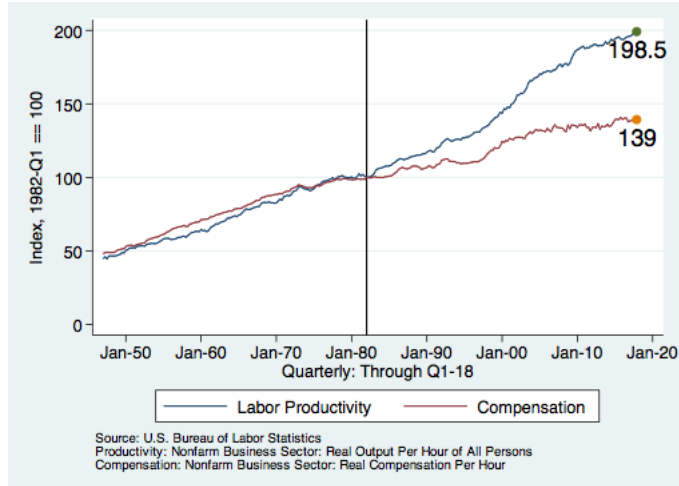
## Technological Change and Inequality

- **Much of the technology adopted in the last 30 years has eliminated low-skill or low-wage jobs.**
  - Computers, advanced manufacturing equipment, automation. Ex: Toll booths, retail stores...
- **Sometimes there is a “winner take all” aspect of the technology-driven economy.**
  - This potentially favors a small group of individuals.
- **Both aspects increase inequality by increasing the rewards to:**
  - Those with significant labor market skills
  - Owners over workers

## Technology Benefits Ownership over Labor



## Labor Income is Unhinged from Productivity



## Globalization and Inequality

- **Merchandise trade**

- Importing goods that are made with low-skilled workers and exporting goods that are made with high-skilled workers
  - o Should lower the wages of unskilled relative to skilled, making the distribution of income less equal

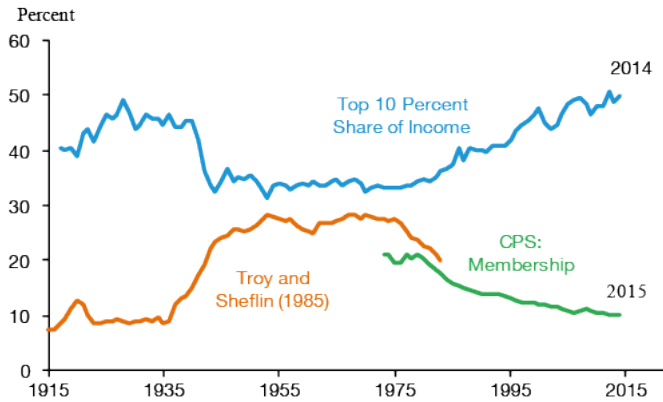
- **Outsourcing**

- Similar channel as with merchandise trade

- **Trade in services**

- US imports of middle-skill services: business and some professional services

## Declining Unionization



### Unionization Rates

- 1983: 20.1%
- 2017: 10.7%



## Government Policy and Inequality

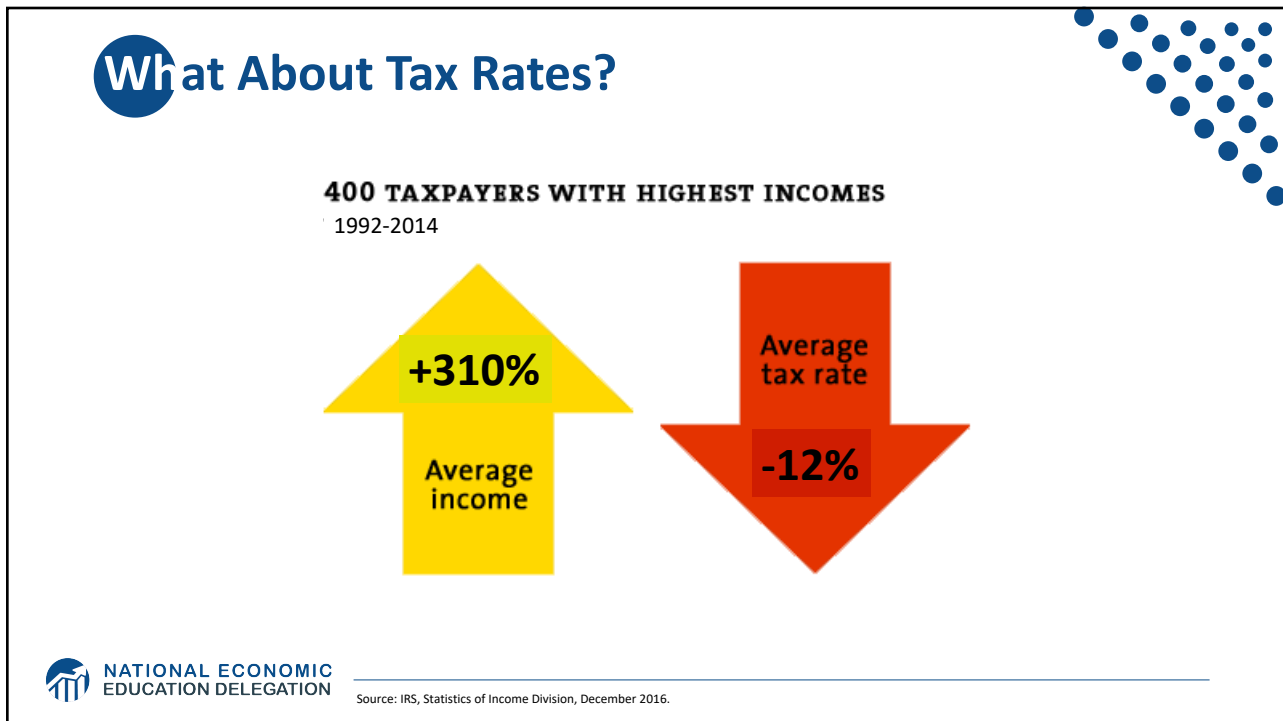
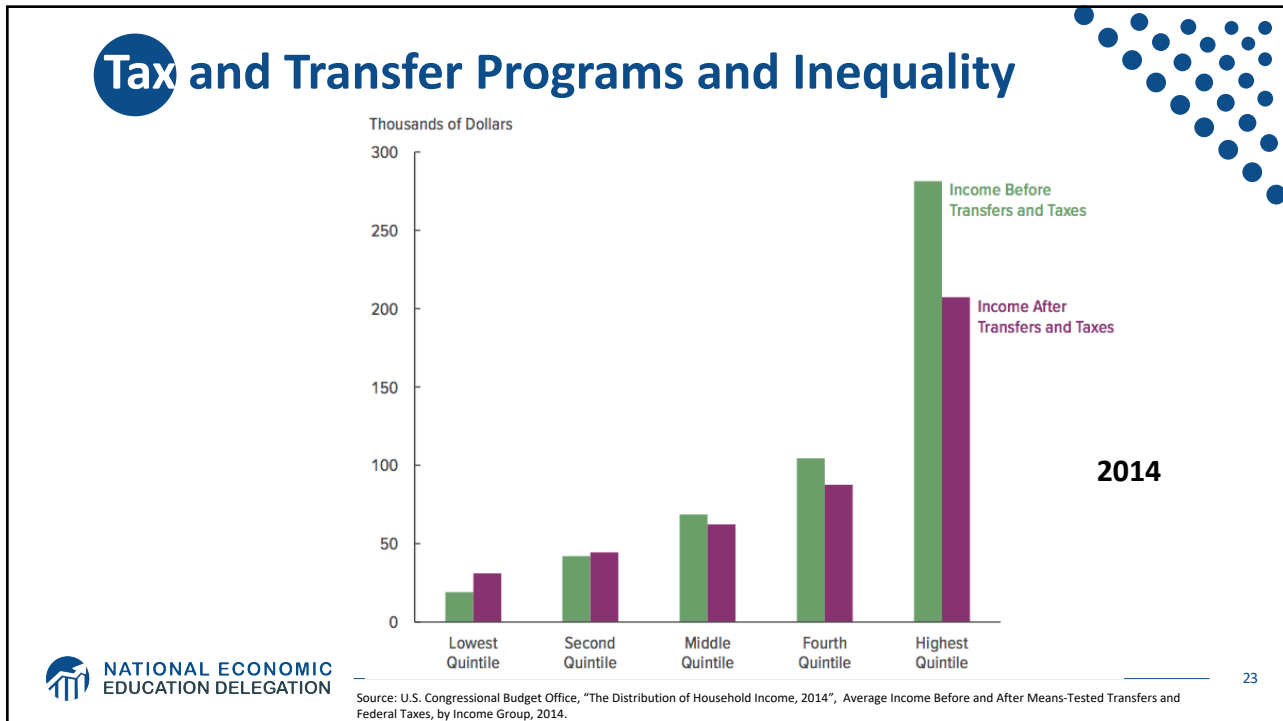
### • Market Influence: PRedistribution

- Access to quality education
- Competition policy (i.e. antitrust laws)
- Labor regulations
  - o Minimum wage, overtime, health insurance, etc.

### • REdistribution

- Tax Rates
- Income support
  - o Direct aid
  - o Food stamps



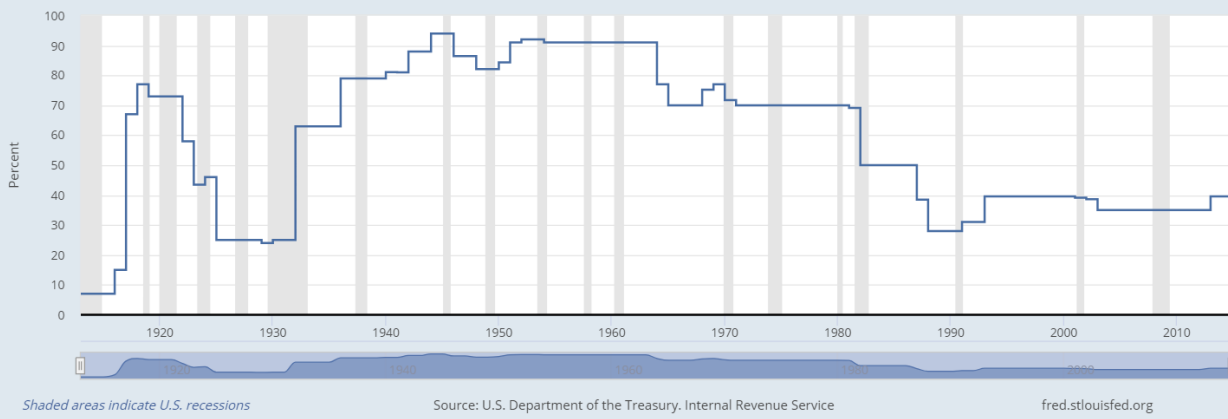


# Income tax brackets

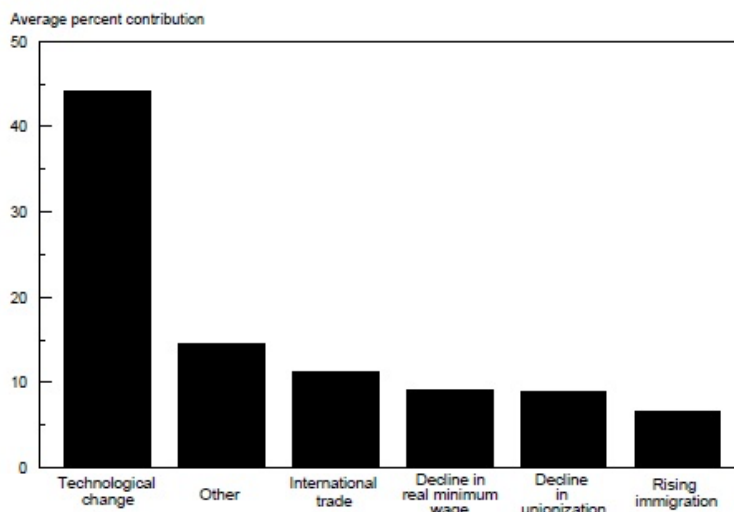
2018 BRACKETS				
Rate	Single	Married Filing Separately	Married Filing Jointly	Head of Household
Taxable income over ...				
10%	\$0	\$0	\$0	\$0
12%	\$9,525	\$9,525	\$19,050	\$13,600
22%	\$38,700	\$38,700	\$77,400	\$51,800
24%	\$82,500	\$82,500	\$165,000	\$82,500
32%	\$157,500	\$157,500	\$315,000	\$157,500
35%	\$200,000	\$200,000	\$400,000	\$200,000
37%	\$500,000	\$300,000	\$600,000	\$500,000



FRED — U.S. Individual Income Tax: Tax Rates for Regular Tax: Highest Bracket



## Sources of Inequality Through Late 1990s



Source: Federal Reserve Bank of New York.



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## Does Inequality Matter?

- **Too little inequality can:**

- Reduce individual motivation
- Slow economic growth

- **Too much inequality can:**

- Slow growth
- Reduce individual motivation

- **Too much inequality may also:**

- Divide society
- Distort political environment
- Reduce political participation
- Reduce investments in public goods
  - o Education
  - o Environmental protections



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## Addressing Inequality: Is It A Problem?

- **Why it might be a problem.**

- Economic issues (Efficiency)
  - o There is evidence that at some level, increased inequality slows economic growth.
  - o Or, inequality concentrates resources among investors.
- Noneconomic issues (Equity)
  - o Values, ethics and morals will drive individual evaluations of the level of inequality.
    - E.g., inequality is primarily a function of market outcomes, so should be left alone.
    - Or, a solid middle class is important for maintaining a civil society, which runs contrary to a high degree of inequality.

- **Suppose you think it's a problem. How might it be addressed?**

## Addressing Inequality: Immediately Available Policy Solutions (1/2)

- **Redistribution**

- Tax and transfer programs

- **PRE-distribution**

- Strengthen labor unions
- Minimum wages
- Collective bargaining
- Other policies that favor labor over business owners



## Addressing Inequality: Immediately Available Policy Solutions (2/2)

- **Other**
  - Reverse trends in market power
- **Locally**
  - Employment services: job training, interview skills, or assistance with day-to-day issues, such as child care
  - Cognizance of the potential for technologies to affect worker/employer power dynamics
    - Uber, Lyft, etc.



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## Addressing Inequality: Long Term

- **It's all about access to resources:**
  - Education, in particular
    - Improve public education
    - Reduce disparities in quality of public education
    - Improve counseling in low-income schools
      - With respect to college – paths to success and funding
  - Investments are needed in early education, not later
    - Universal pre-K
    - Upgrade quality of elementary schools in low-income areas

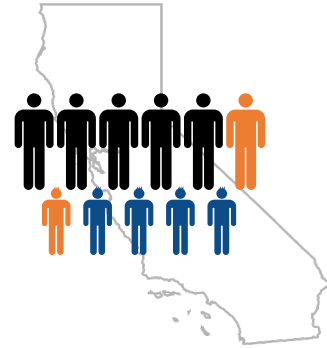


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## Summary

- **Income inequality is increasing.**
  - The economy is favoring owners of productive resources over labor.
- **The causes appear to be largely driven by:**
  - The market – technology, trade, and competition
  - Changing institutions
- **Open questions are:**
  - To act or not to act?
  - If so, how?



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