Inequality in the U.S.

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Newton North High School
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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

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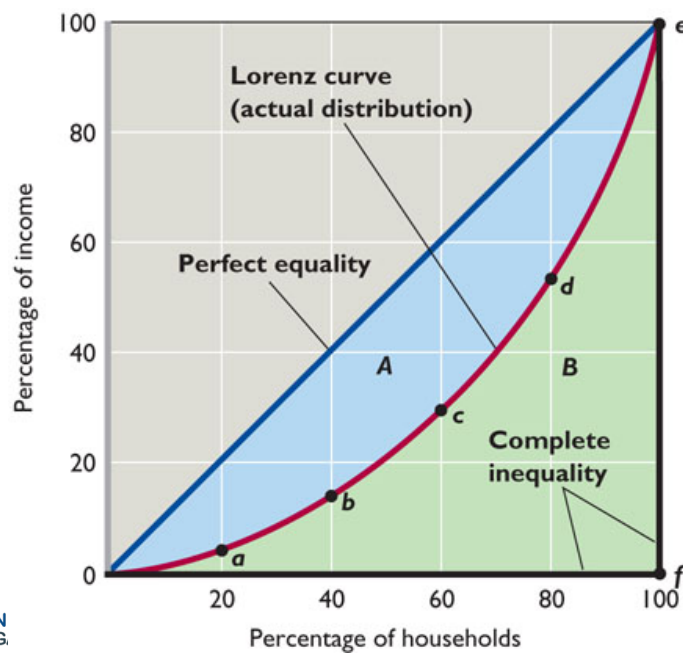**NATIONAL ECONOMIC EDUCATION DELEGATION**

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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**

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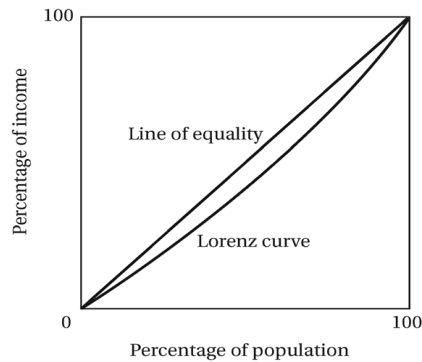
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Measuring inequality: The Lorenz Curve

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

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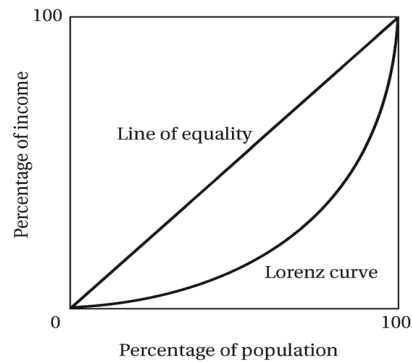
The greater the curvature of the Lorenz Curve, the greater is the degree of income inequality

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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

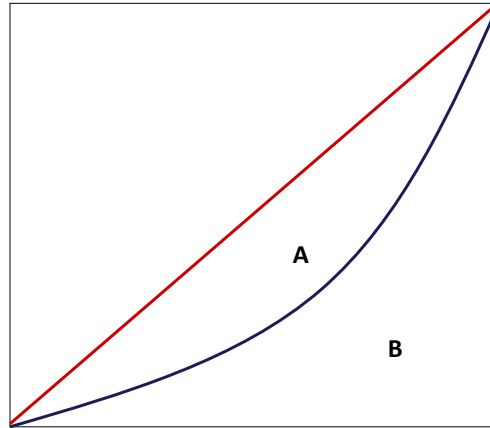**NATIONAL ECONOMIC EDUCATION DELEGATION**

Using the Lorenz curve to calculate a Gini Coefficient
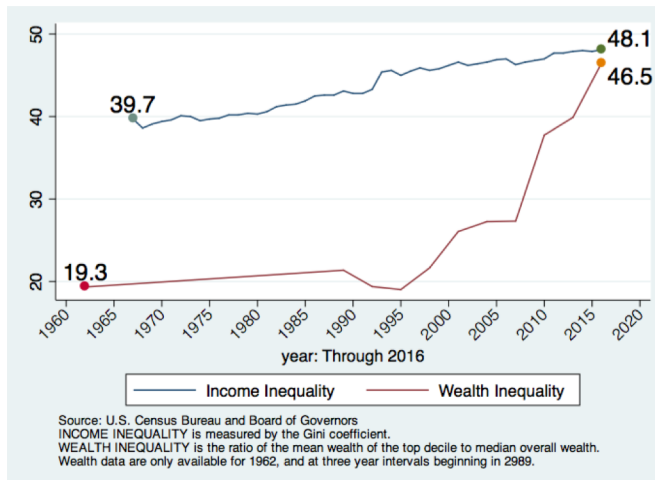
**Gini coefficient =
A /(A + B)**

A higher Gini coefficient means greater inequality

Perfect equality:
A=0, Gini=0

Perfect inequality:
B=0, Gini = 1

A

B

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Income and Wealth Inequality

Source: U.S. Census Bureau and Board of Governors.
INCOME INEQUALITY is measured by the Gini coefficient.
WEALTH INEQUALITY is the ratio of the mean wealth of the top decile to median overall wealth.
Wealth data are only available for 1962, and at three year intervals beginning in 2989.

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Income Share Changes Between 1970 and 2015

1970: Dark Blue

2015: Light Blue

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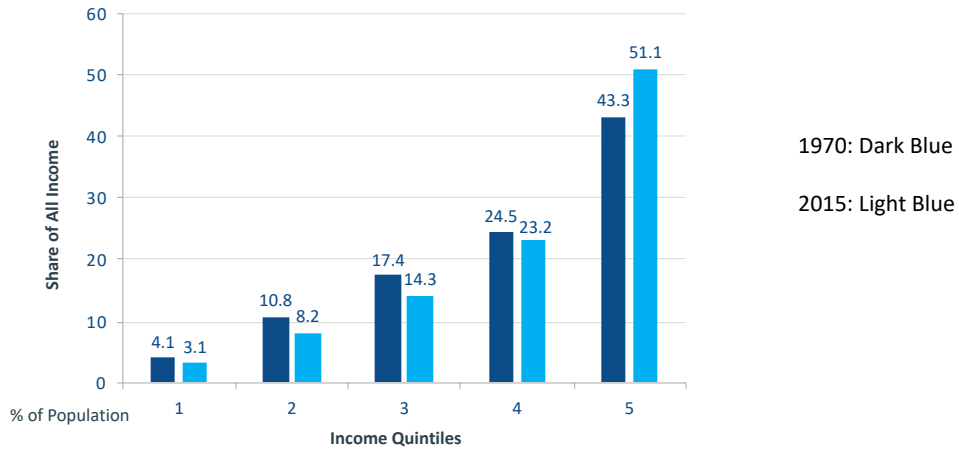
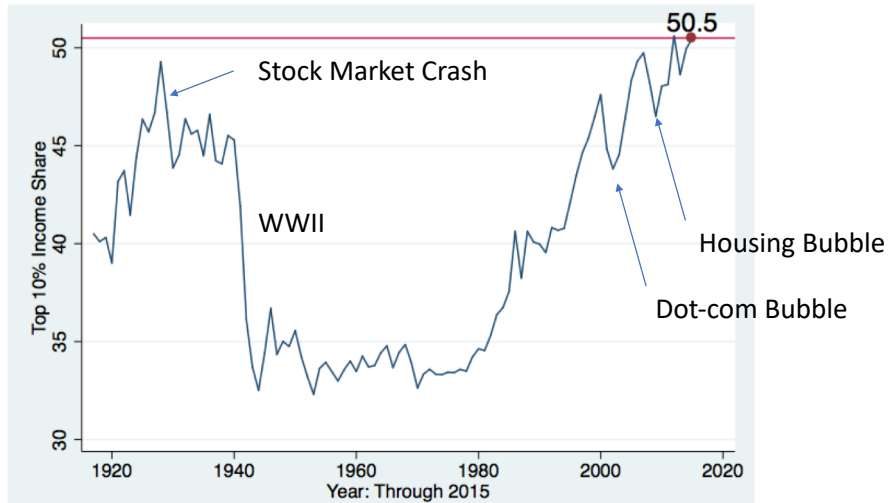Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

National Income Inequality: Share of Top 10%

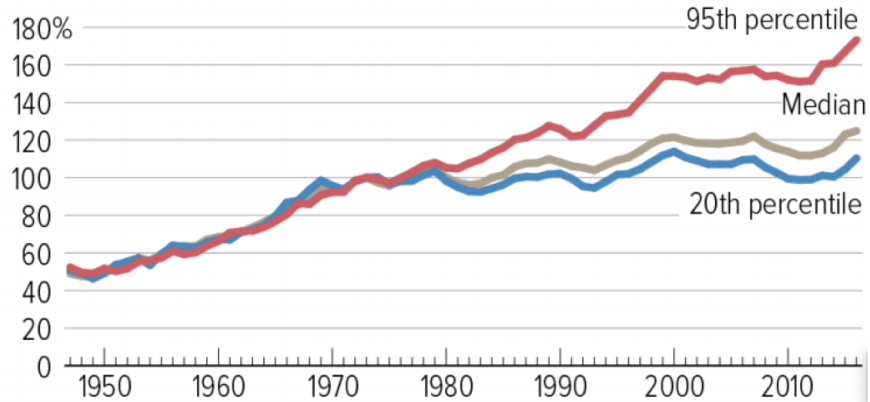Source: Piketty and Saez, 2003 updated to 2015.

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

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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.

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.

Wealth Inequality Exceeds Income Inequality

Distribution of before-tax income, 2016

Distribution of wealth, 2016
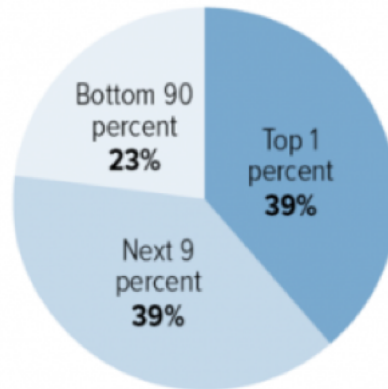
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Source: Chad Stone, Danilo Trisi, Arloc Sherman, and Roderick Taylor, "A Guide to Statistics on Historical Trends in Income Inequality,"
Center on Budget and Policy Priorities, Policy Futures, May 15, 2018, page 15, Figure 4.

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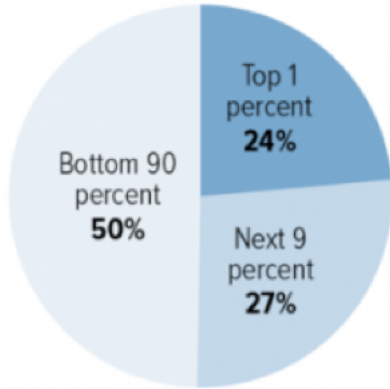
Share of Income Earned by Top 1 Percent, 1975–2015

CEA 2017 Economic Report of the President

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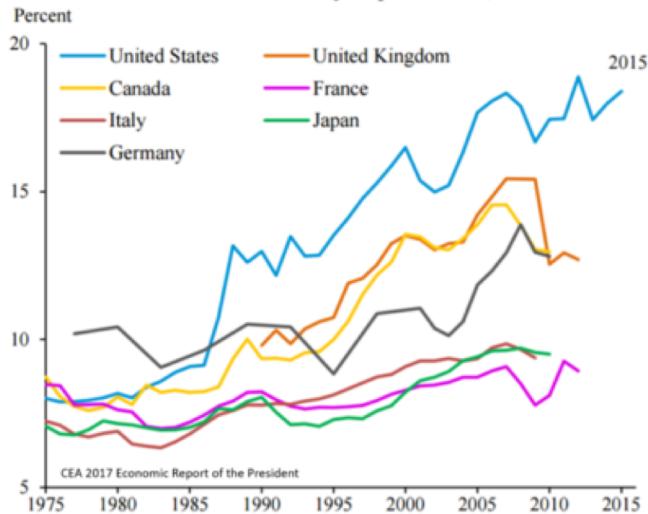
Source: World Wealth and Income Database.

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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

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Technology Benefits Ownership over Labor

Productivity and employment in the United States: 1947-2012

Source: BLS (Private employment, non-farm business productivity)
Replication of Brynjolfsson and McAffee, NYT 11 Dec 2012
Roger Pielke Jr., 18 Dec 2012

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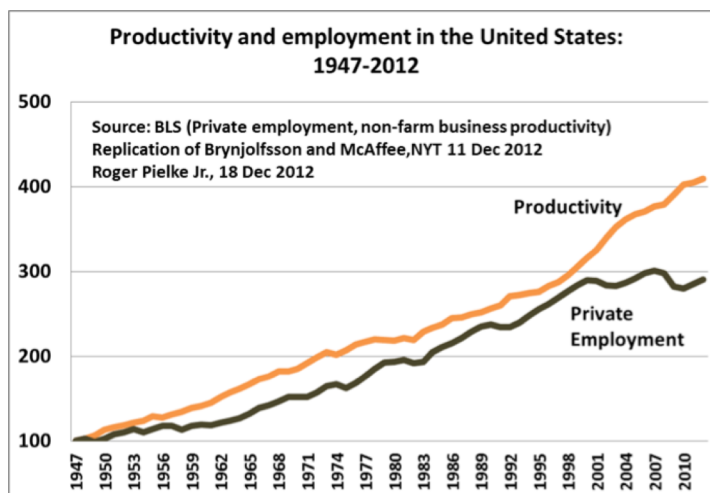
Labor Income is Unhinged from Productivity

Source: U.S. Bureau of Labor Statistics
Productivity: Nonfarm Business Sector: Real Output Per Hour of All Persons
Compensation: Nonfarm Business Sector: Real Compensation Per Hour

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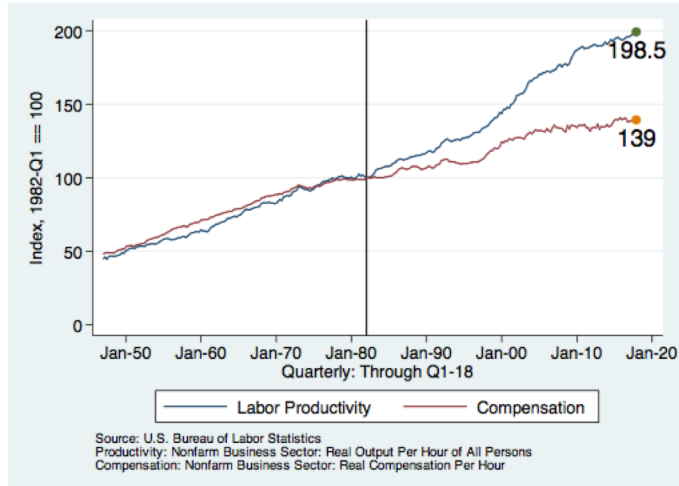
Globalization and Inequality

- **Merchandise trade**
  - Importing goods that are made with low-skilled workers and exporting goods that are made with high-skilled workers
    - 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

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Declining Unionization

Percent
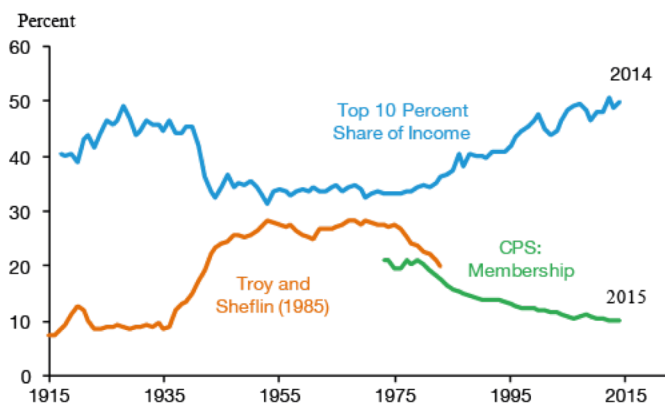
Unionization Rates

- 1983:   20.1%
- 2017:   10.7%

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Source: Jason Furman, "Forms and sources of inequality in the United States", *VOX*, March 17, 2016, Figure 4.

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

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Tax and Transfer Programs and Inequality

Thousands of Dollars

2014

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Source: U.S. Congressional Budget Office, "The Distribution of Household Income, 2014", Average Income Before and After Means-Tested Transfers and
Federal Taxes, by Income Group, 2014.

What About Tax Rates?

400 TAXPAYERS WITH HIGHEST INCOMES
1992-2014

+310%
Average income

Average tax rate

-12%
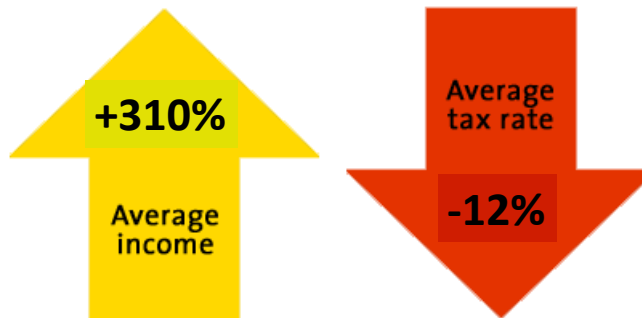
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Source: IRS, Statistics of Income Division, December 2016.

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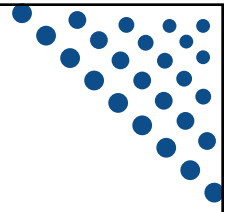
Rate	Single	Married Filing Separately	Married Filing Jointly	Head of Household
		2018 BRACKETS		
		Taxable income over . . .		
10%	$0	$0	$0	$0
12%	$9,525	$9,525	$19,050	$13,600
22%	$38,700	$38,700	$77,400	$51,800
24%	$82,500	$82,500	$165,000	$82,500
32%	$157,500	$157,500	$315,000	$157,500
35%	$200,000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

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

Shaded areas indicate U.S. recessions

Source: U.S. Department of the Treasury. Internal Revenue Service

fred.stlouisfed.org

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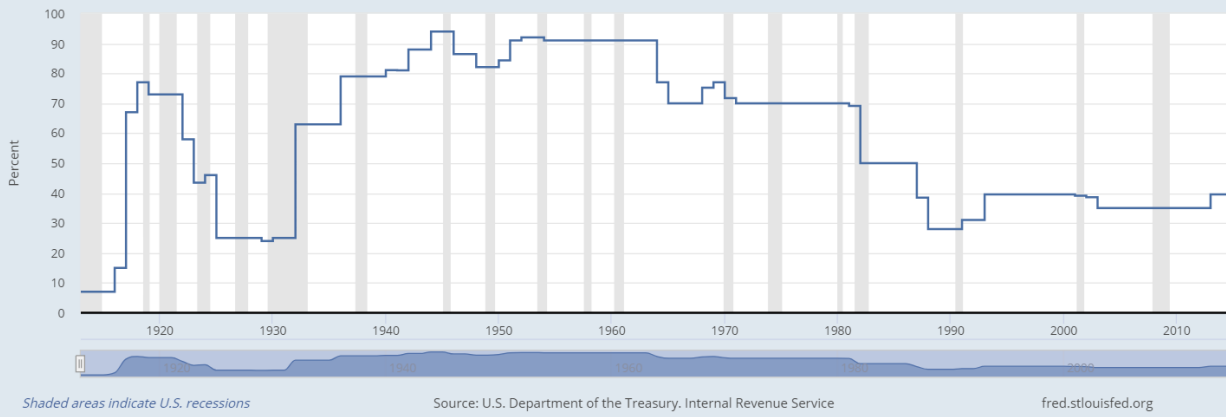
Sources of Inequality Through Late 1990s

Average percent contribution
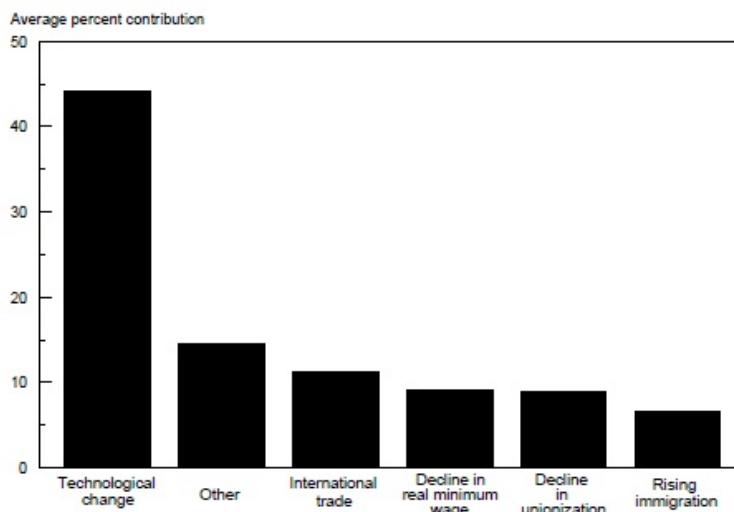
Source: Federal Reserve Bank of New York.

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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
    - Education
    - 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?**

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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

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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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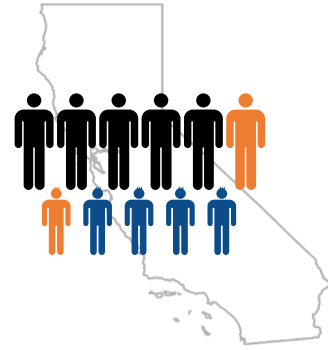
Addressing Inequality:
Long Term

- **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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