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# Income Measurement and Inequality Measurement

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## Measuring income

1. Pre-tax private cash income
  2. Census “money income”:
    - Same as #1 plus gov’t cash transfers (Social Security, Unemployment benefits, etc.)
  3. Cash income plus “near cash” income
    - Same as #2 plus food stamps
  4. Cash + near cash income minus Income + Payroll taxes
    - Same as #3 minus Income & Payroll taxes
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## Measuring income

5. Cash + Near-cash + Imputed Noncash income + Capital gains income + Imputed corporate income
    - Same as #3 PLUS—
      - Imputed value of employer health benefits
      - Imputed value of gov't health insurance (Medicare, Medicaid)
      - Realized capital gains
      - Corporate income that is imputed to owners of corporations
  6. All private + gov't provided gross income minus direct and indirect federal taxes
    - Same as #5 minus Federal income & payroll taxes + Federal corporate income taxes + Federal excise taxes
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## Measuring income: Adjusting for household size

- At what level do we measure inequality?
    - Tax filing units
      - IRS data used by Piketty-Saez
  - Households – not adjusted for household size
    - U.S. Census Bureau
  - Persons, under assumption that household income is shared equally by each person in household
    - Luxembourg Income Study (LIS)
    - OECD
    - U.S. Congressional Budget Office
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## Measuring income

### 1. Pre-tax private cash income

- ❑ Derived from Federal income tax return data
- ❑ This measure can include realized capital gains
- ❑ It differs from “Federally taxable data” because it excludes taxable Social Security and (government-funded) unemployment insurance income

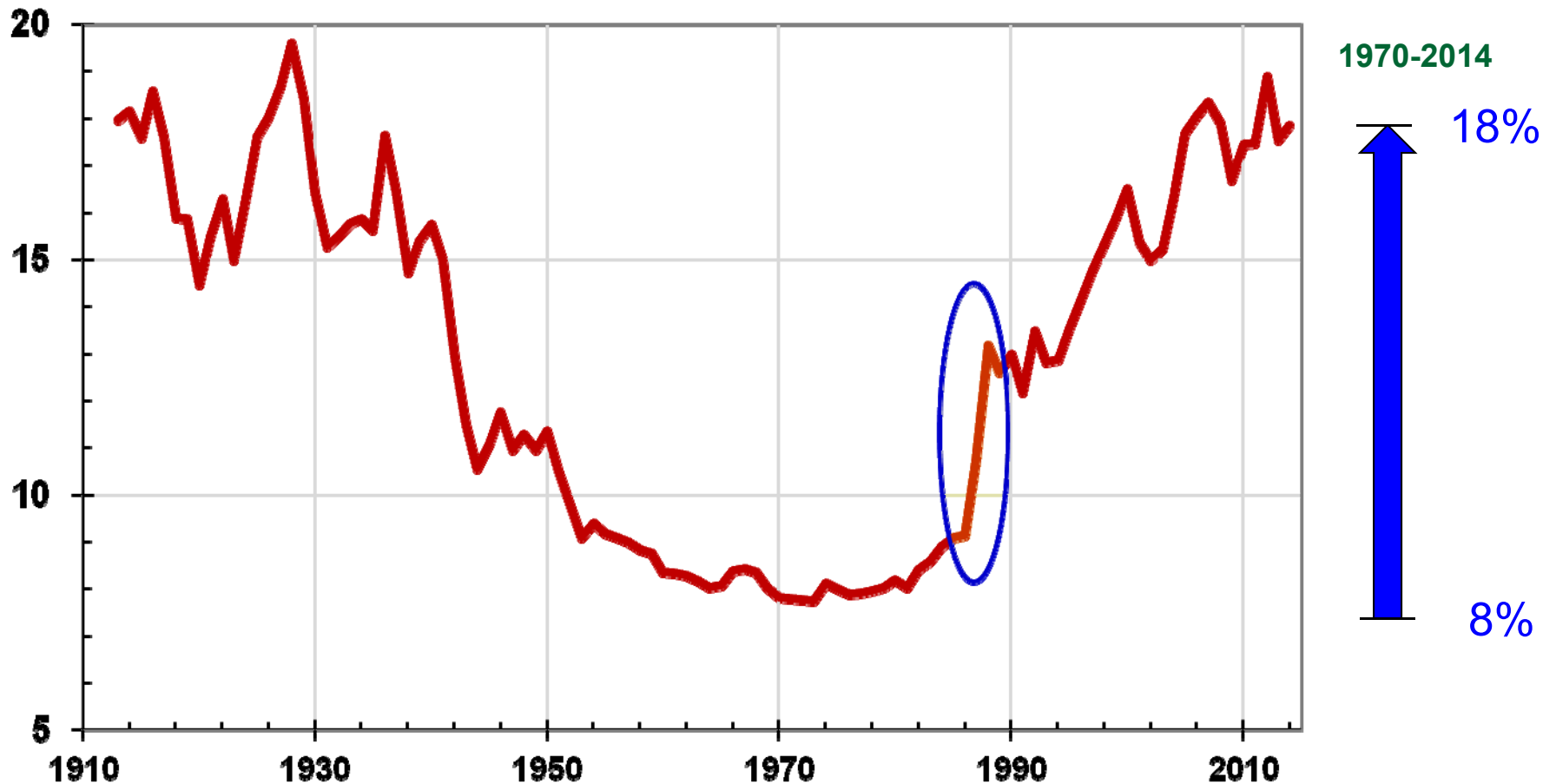
*Most famous use:*

Piketty-Saez estimate of the “top 1% income share”

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# Measuring income inequality: Piketty-Saez

Share of **private cash** income received by the top 1% of U.S. income recipients (excluding capital gains)



Source: Piketty and Saez, tabulations of U.S. income tax data (2014).

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## Measuring income

1. Census “money income”:
  - Same as #1 plus gov’t cash transfers (Social Security, unemployment insurance, cash public assistance, etc.)

### *Most famous producer:*

U.S. Census Bureau

### *Most famous uses:*

U.S. median household income

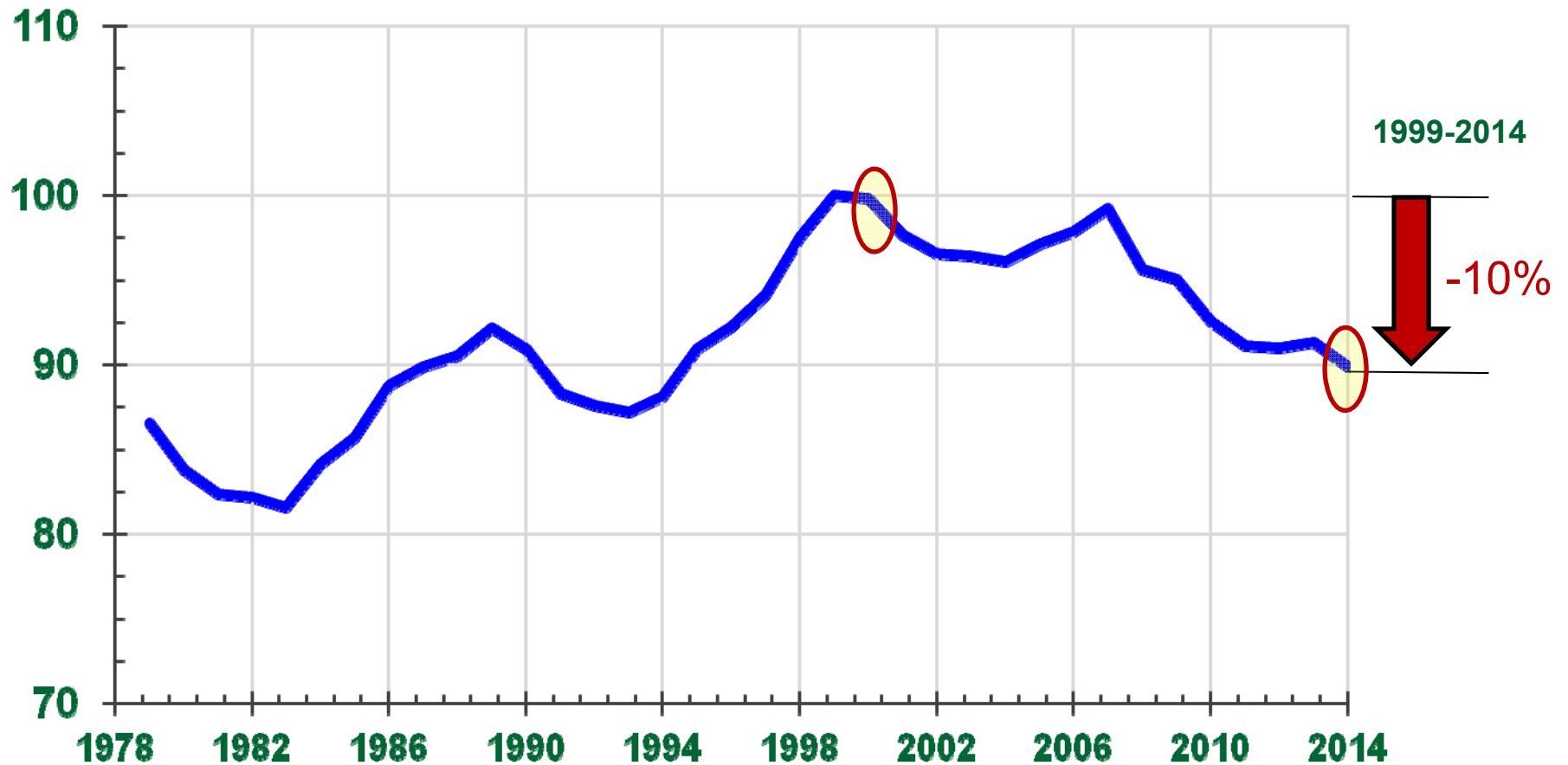
Official U.S. poverty rate

Household income “Gini coefficient” and income shares

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# Measuring income growth: U.S. Census Bureau

## U.S. median household “money income” (1999=100)

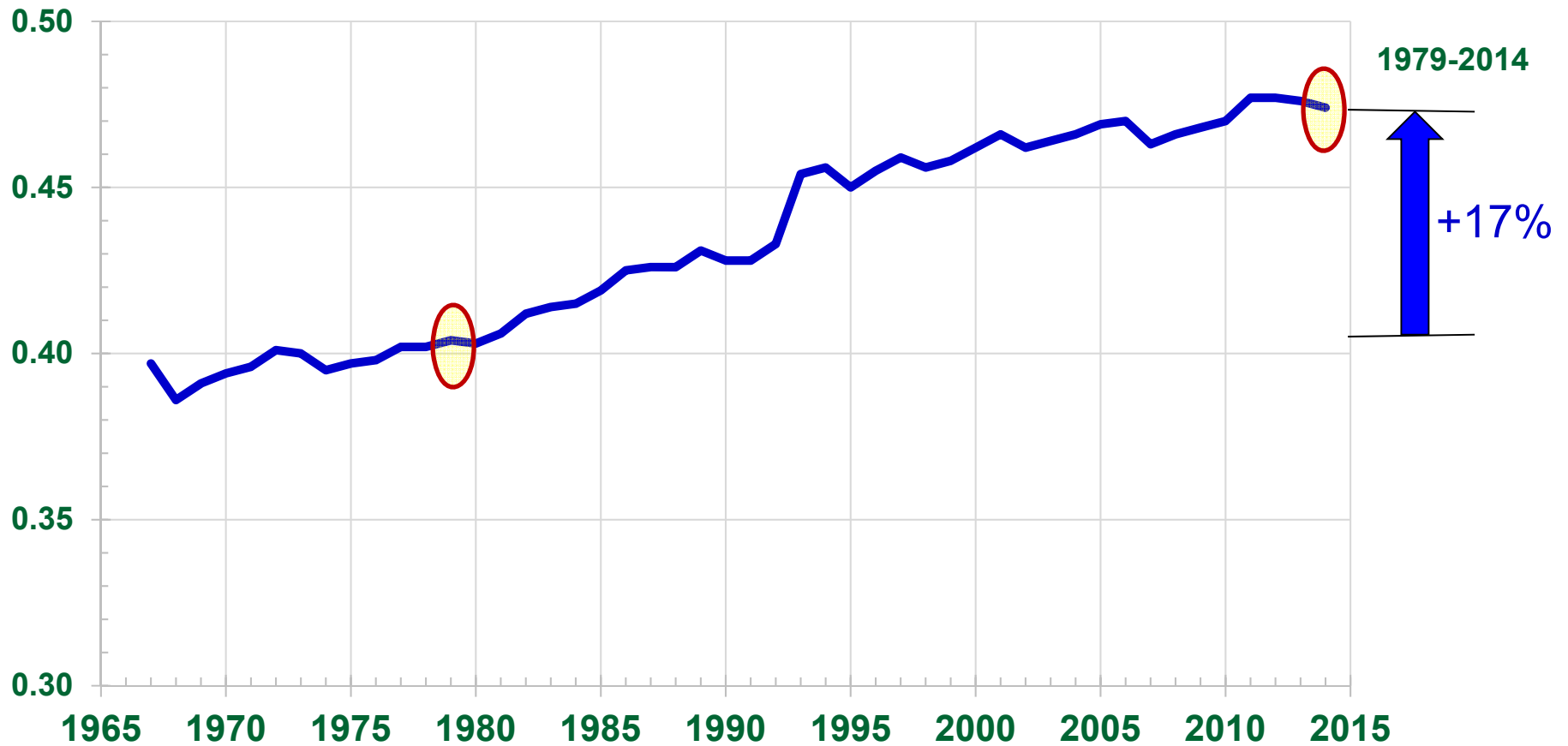


Source: U.S. Census Bureau.



# Measuring income inequality: U.S. Census Bureau

Gini coefficient of household money income inequality:  
1967-2014



Source: U.S. Census Bureau.

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## Measuring income

4. Cash + near cash income minus Income + Payroll taxes
  - Same as #3 minus Income & Payroll taxes

### *Most famous producers:*

Luxembourg Income Study; OECD

### *Most famous uses:*

Compare inequality across rich countries

Compare “relative” poverty rates across rich countries

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## Measuring income

6. Cash + Near-cash + Imputed Noncash income +  
Capital gains income + Imputed corporate income  
– Federal direct & indirect taxes
- Imputed value of employer health benefits
  - Imputed value of gov't health insurance (Medicare, Medicaid)
  - Realized capital gains
  - Corporate income that is imputed to owners of corporations
  - MINUS: Federal income + payroll + excise + corporate income taxes

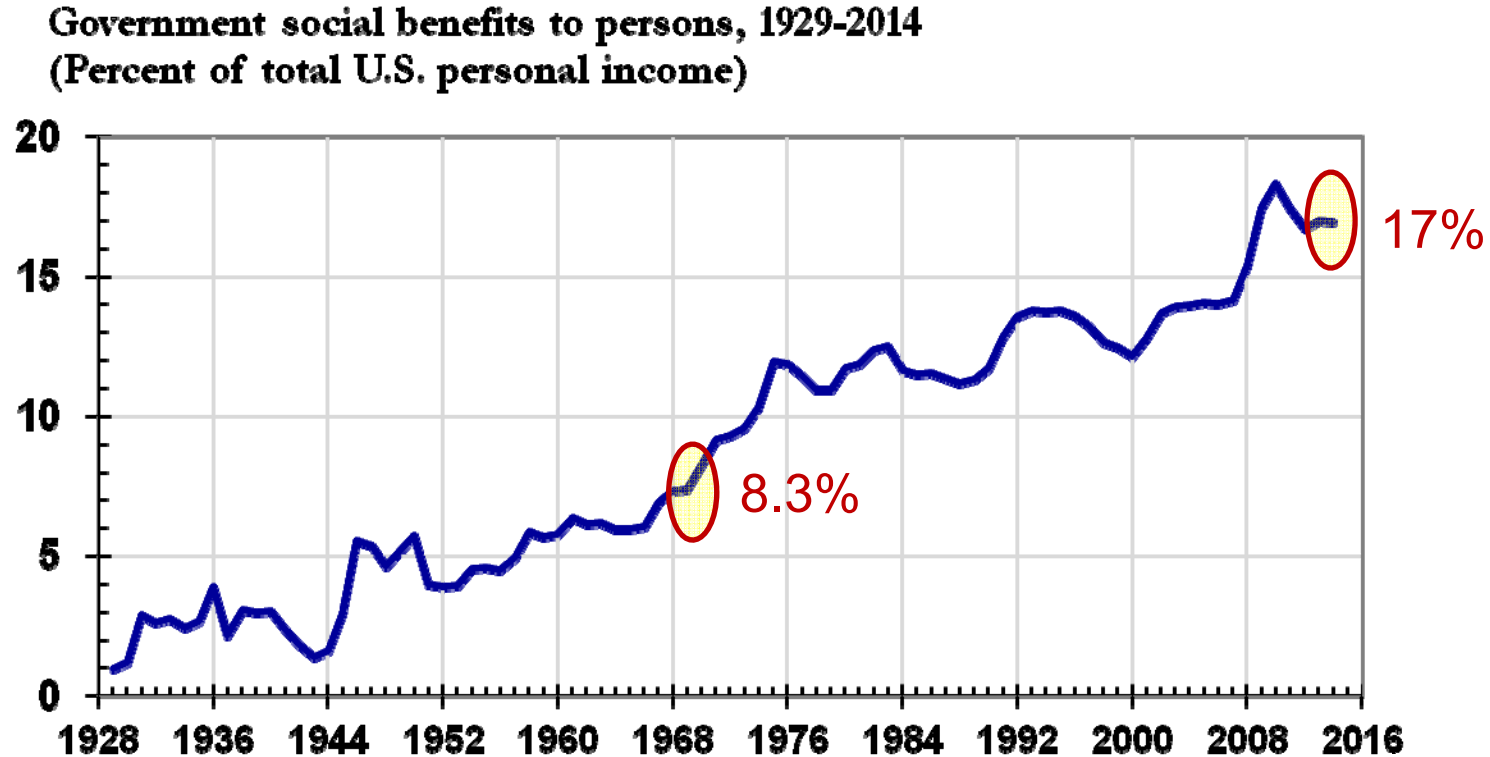
*Most famous producer:*

U.S. Congressional Budget Office

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## Measuring trends in income inequality: Problems

- Piketty-Saez estimate of “top 1% share”
  - Excludes government transfers (cash & noncash)
  - Excludes in-kind benefits from employers

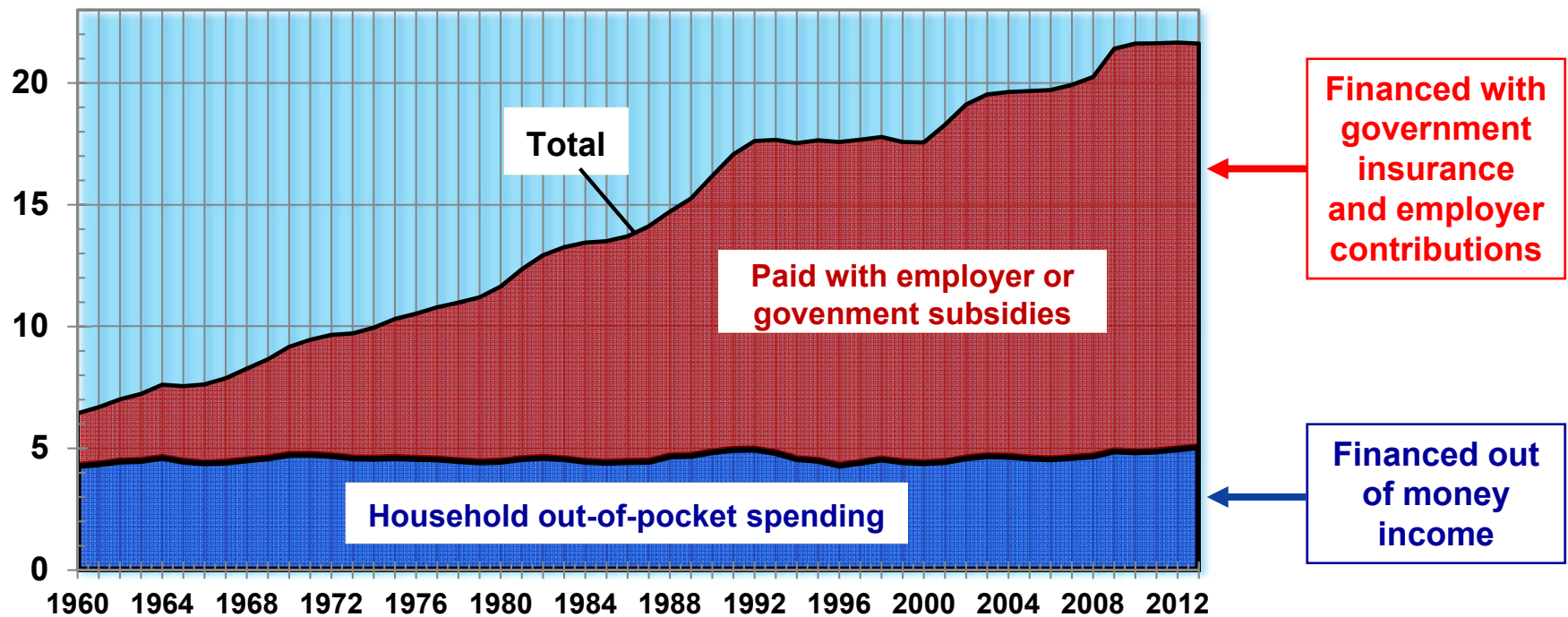


Source: U.S. National Income and Product Accounts.

## Measuring trends in income inequality: Problems

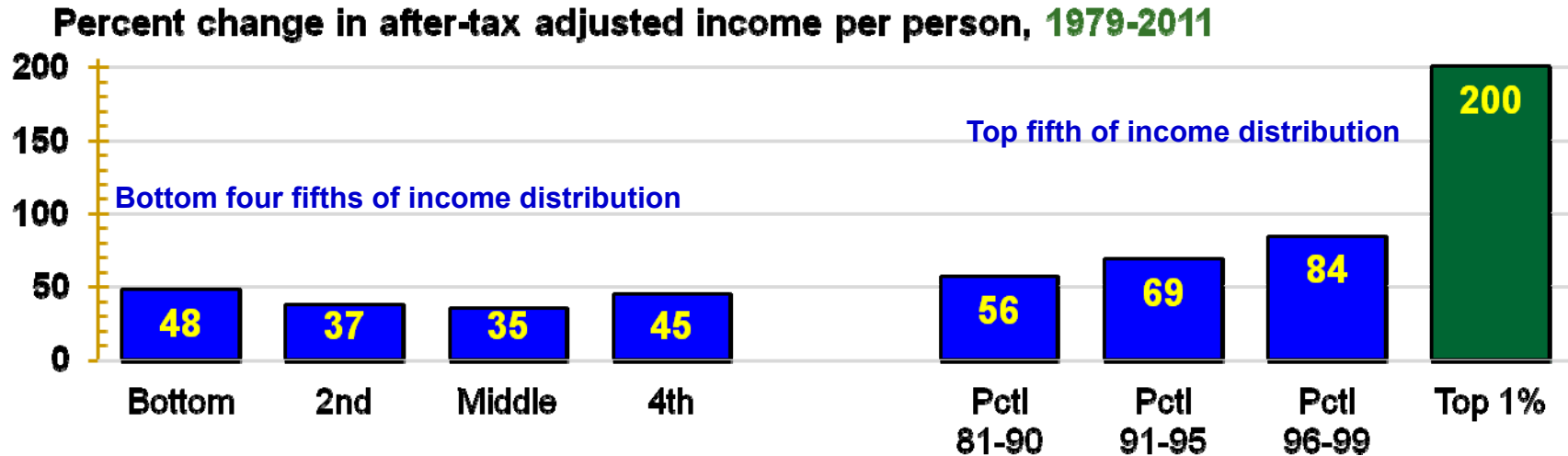
- U.S. Census Bureau “money income”
  - No adjustment for household size (households are now smaller)
  - Excludes in-kind benefits (from government and employers)

**Personal health consumption as percent of total personal consumption expenditures**



Source: U.S. National Income and Product Accounts.

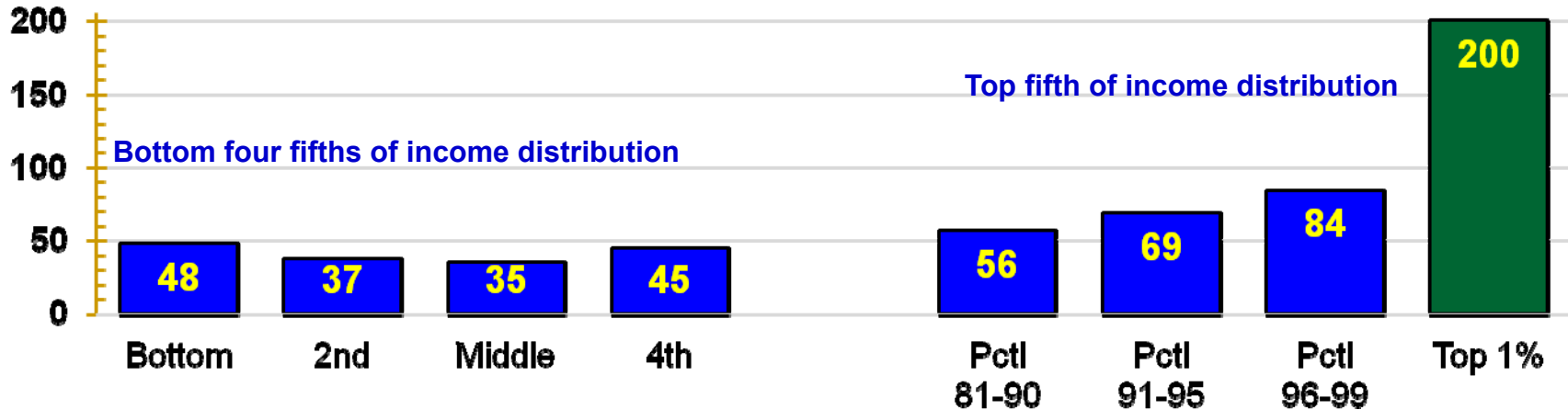
# Measuring trends in income inequality under most inclusive income definition: U.S. CBO



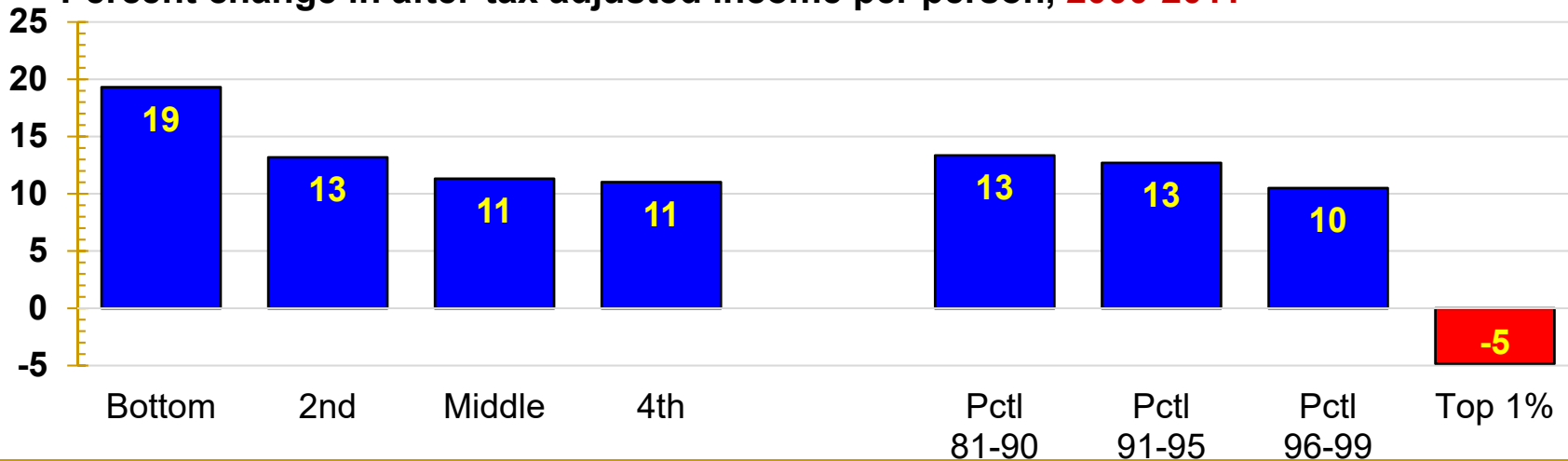
Source: U.S. Congressional Budget Office (2014).

# Measuring trends in income inequality under most inclusive income definition: U.S. CBO

Percent change in after-tax adjusted income per person, 1979-2011



Percent change in after-tax adjusted income per person, 2000-2011



Source: U.S. Congressional Budget Office (2014).