

More unequal we stand? Inequality in the United States from the Great Recession to the COVID pandemic

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Objective

- Heathcote, Perri Violante (RED, 2010) document dynamics of several dimensions of inequality in the United States from 1967 to 2006, using publicly available surveys
- Upshot of the analysis is a large increase in earnings/income inequality, not expenditures
- Document how dynamics of inequality in the United States changed over the past 15 years (which include Great Recession and COVID)

Organizing device: household budget constraint

$$c + a' = a + \sum_{i=1}^N w_i h_i + U + T^G - \tau$$

- w_i individual wage
- $w_i h_i$ individual earnings (labor supply)
- $\sum_{i=1}^N w_i h_i$ hh earnings (pooling)
- $\sum_{i=1}^N w_i h_i + U$ hh market income (unearned income)
- $\sum_{i=1}^N w_i h_i + U + T^G$ hh pretax income (govt transfers)
- $\sum_{i=1}^N w_i h_i + T^G + U - \tau$ hh disposable income (taxes)
- a' end of period wealth (capital gains, saving)
- c consumption expenditures

Five Surveys

1. **Current Population Survey (March CPS), 1967-2020**
 - repeated cross-section (+short panel), $\simeq 60,000$ households per year: income
2. **American Community Survey (ACS), 2000-2020**
 - repeated cross-section, $\simeq 1\text{m}$ households per year: income
3. **Consumer Expenditure Survey (CEX), 1980-2021**
 - rotating short panel: $\simeq 15,000$ households: income, consumption, wealth
4. **Panel Study of Income Dynamics (PSID), 67-96, 98(2)18**
 - long panel, $\simeq 6000$ households: income, consumption, wealth
5. **Survey of Consumer Finance (SCF), 1988(3)2018**
 - repeated cross section, $\simeq 4000$ households: income and wealth

Sample selection

1. Sample A

- “Clean” version of raw data: drop households with members that have incomplete or implausible info (i.e. wage below 1/2 the minimum)
- used for **population-level** statistics (comparison with NIPA)

2. Sample B

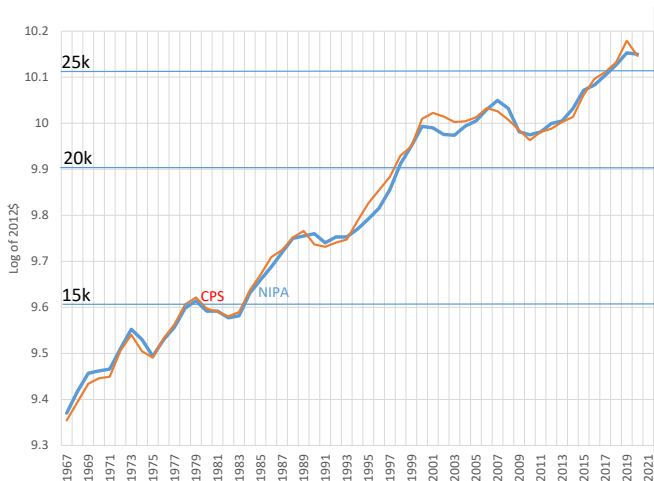
- Households in **A** with at least one member age 25-60
- used for **household-level** (earnings, income, consumption) statistics

3. Sample C

- individuals from households **B**, age 25-60 who work at least 260 hours per year
- used for **individual-level** (wages, hours) statistics

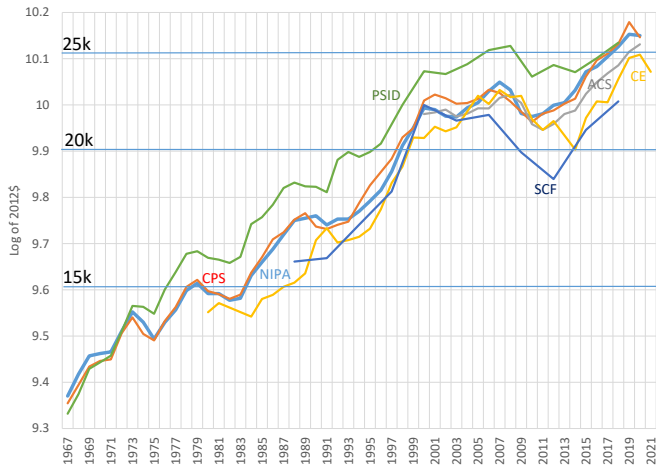
Macro facts in micro data

Wage and salary income pc, sample A



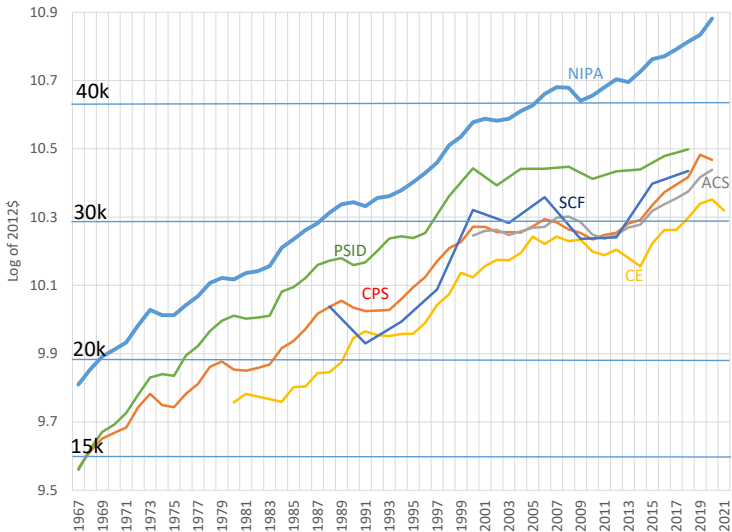
- March CPS matches NIPA very closely

Wage and salary income pc, sample A



- March CPS matches NIPA very closely
- PSID matches well early, less well in the middle
- SCF & CE lower wages and salaries (for different reasons)
- All capture cyclical variations

Pretax (personal) income pc, sample A



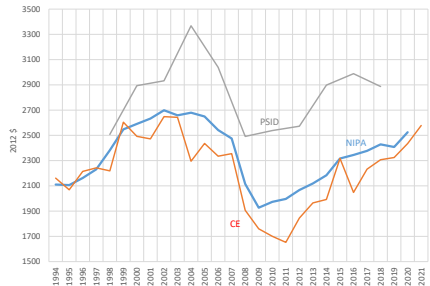
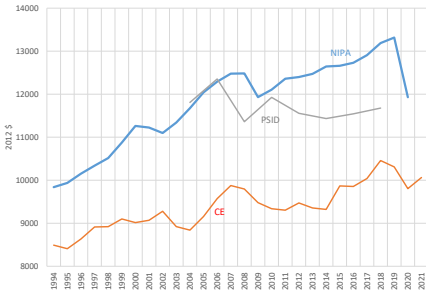
Missing income in surveys

- Increasing gap between NIPA and surveys
 - Over 2000-2020 growth in pretax income in NIPA is 30%, in surveys 20%
 - Increasing value in employee provided health insurance? Decline in labor share + underreporting of non labor income? Increasing income of the (missing) very top?
- Much larger recessions in surveys
 - After Great recession NIPA is back to pre recession in 2011, surveys in 2014/15

Consumption expenditures pc, sample A

Non Durables

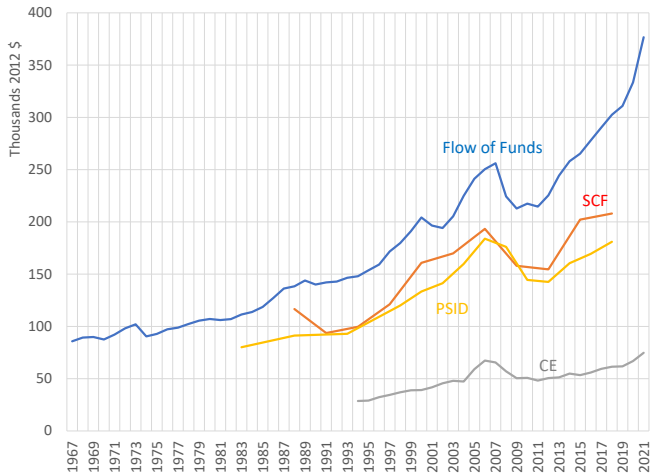
Durables



Non health, non housing

- Recent years allow evaluation of PSID v/s CE
- CE better matches NIPA growth in recent years and closer to NIPA than PSID
- Both capture well cyclical variations (COVID?)

Household net worth pc, sample A

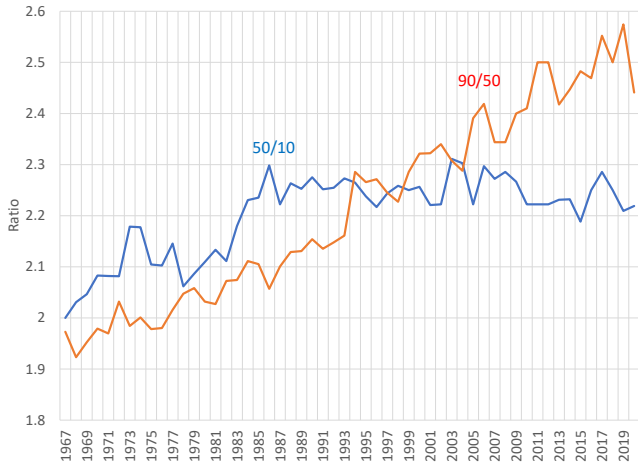


- Very different levels
- In recent years increasing gap between survey and FF

Inequality dynamics roadmap

- Individual wages →
- Individual earnings →
- HH earnings/income →
- HH expenditures and wealth

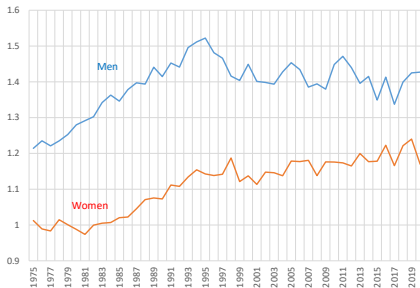
Wage inequality, sample C, CPS



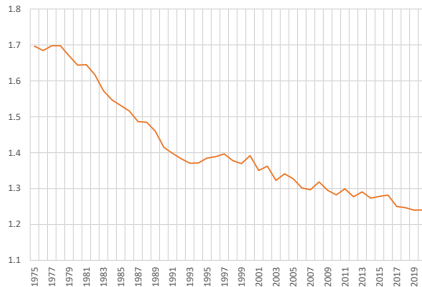
- not cyclical
- flat at the bottom
- keeps increasing at the top

Wage Premia

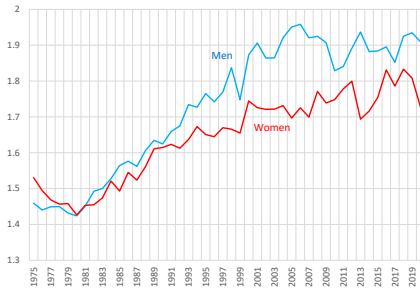
Age Premium



Gender Premium

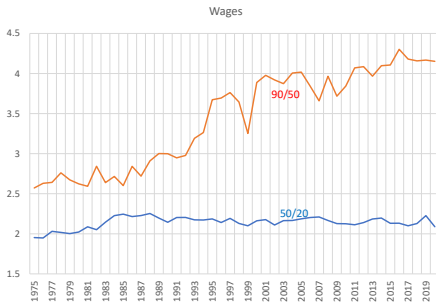
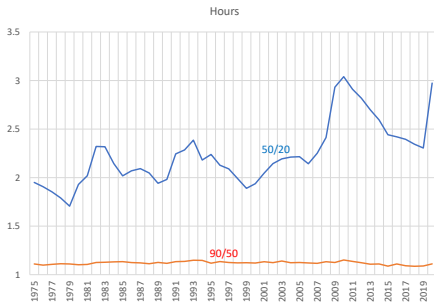
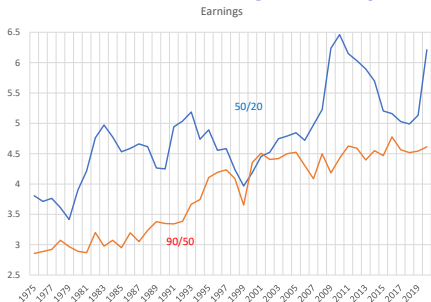


College Premium



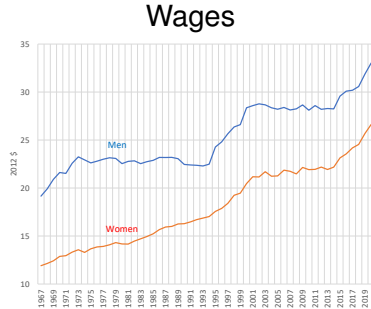
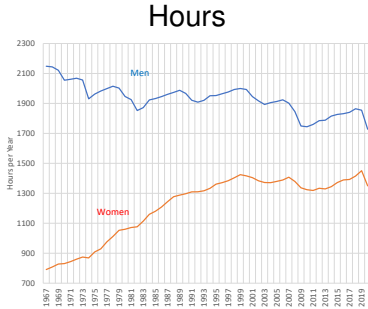
- No increase in premia
- Suggests residual factors explain increase in inequality at the top

Earnings Inequality: men, sample B



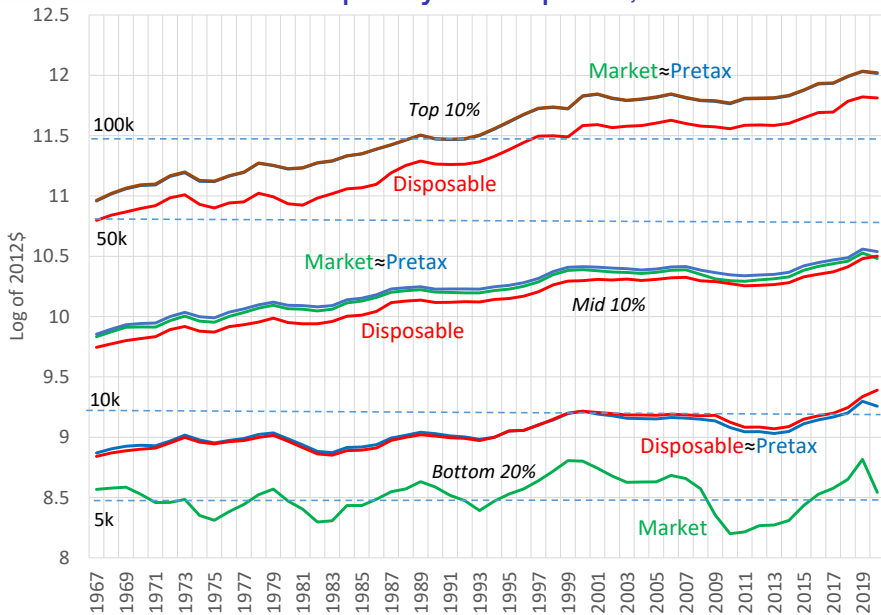
- earnings inequality increase both at the top and bottom
- top: only secular driven by wages
- bottom: cyclical and secular and driven by hours

Earnings Gender Gaps: Sample C



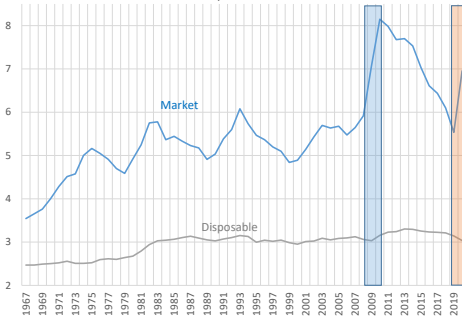
- 1967-1997: women faster wage and hours growth: great earnings equalization
- 1997-2020: great equalization is over
- Gender gap in hours AND wages stuck at around 30%

Household inequality: Sample B, CPS

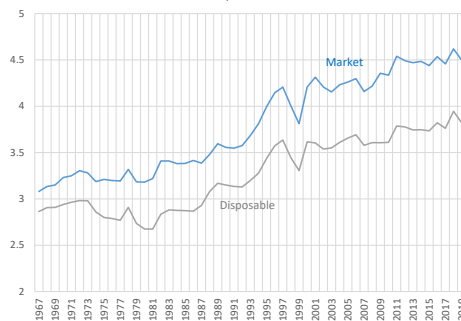


Household inequality: Sample B

50/20 Ratio

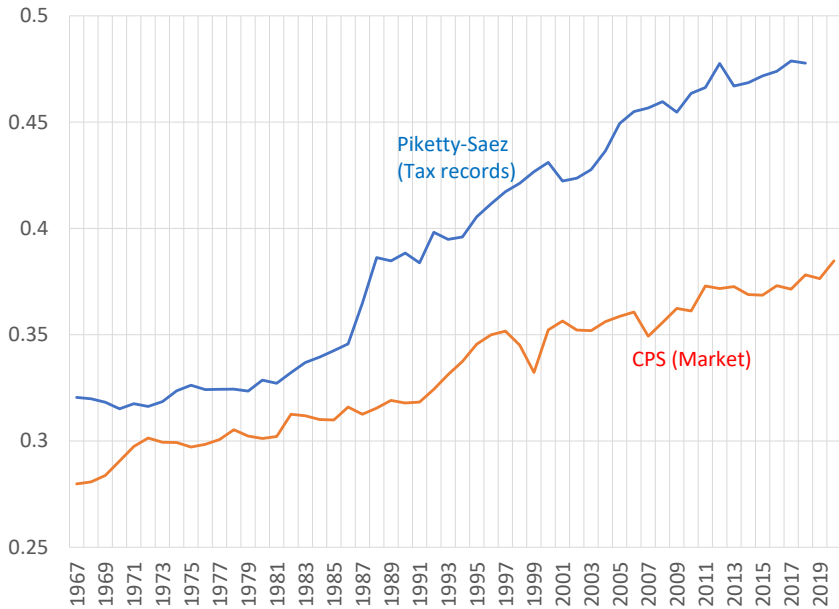


90/50 ratio



- Great Recession drove an increase in inequality, which has reversed at the bottom, not at the top
- COVID recession unprecedented redistribution

Share of top 10%

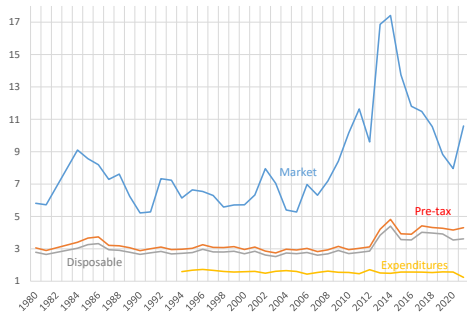


Main takeaways

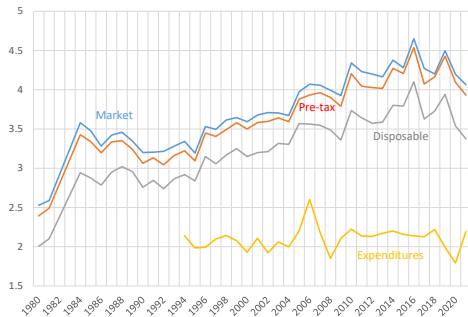
- Stagnation of market income of bottom 20% of households has continued throughout the digital era
- Tax and transfers greatly affect trend and cycle of bottom 20%, and reduce income at the top
- Over past 15 years disposable income of the top keeps diverging
- COVID historically large redistribution

Household Expenditure Inequality: Sample B, CE

50/20 by Market Income



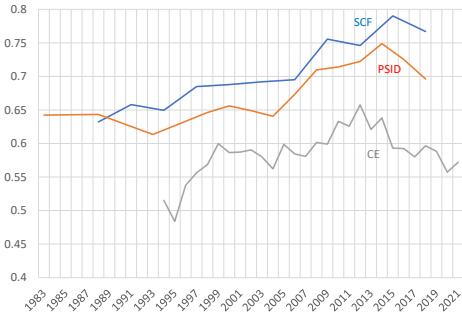
90/50 by Market Income



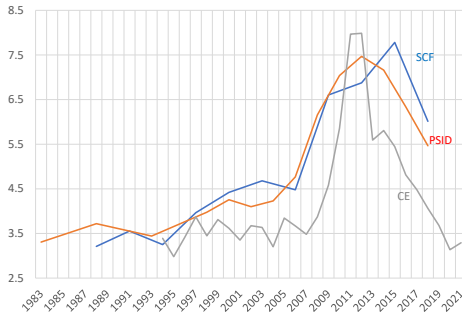
- Dynamics of income inequality in CE very similar to CPS
- Still no increase in expenditure inequality
- Same results using PSID expenditures

Wealth Inequality: Sample B

Top 10% share



Mean/median



- Dynamics of wealth inequality driven by house and stock prices (Kuhn et al. 2020)
- In recent years wealth inequality declining (raising home prices?)

Lessons from Survey data over the past 15 years

- Increasing "missing" non-labor income and wealth in surveys
- Growth of college premium and gender equalization have stopped
- Bottom 20% of market income distribution in 2020 still at 1967 level
- Great recession: increase in income inequality, that over the recovery reversed at the bottom but not at the top
- COVID: historically different, first recession when disposable income inequality declined
- Consumption expenditure inequality still flat throughout
- Wealth inequality increase around great recession, declines after