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

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Views are of the authors and not necessarily of the Minneapolis Fed or the Federal Reserve System
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

• Document dynamics of dimensions of inequality in the United States over past 15 years (which include Great Recession and COVID)

• Provide empirical references to the micro-macro literature
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), 1967-2021**
   - repeated cross-section (+short panel), \(\simeq 60,000\) households per year: income

2. **American Community Survey (ACS), 2000-2020**
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3. **Consumer Expenditure Survey (CEX), 1980-2021**
   - rotating short panel: \( \approx 15,000 \) households: income, consumption, wealth
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4. Panel Study of Income Dynamics (PSID), 67-96, 98(2)18
   • long panel, \( \approx 6000 \) households: income, consumption, wealth

5. Survey of Consumer Finance (SCF), 1988(3)2018
   • repeated cross section, \( \approx 4000 \) 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)
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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 (DNA)
Wage and salary income pc, sample A

- March CPS matches NIPA well
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Broad agreement with NIPA for other surveys
In PSID & CE more persistent Great Recession
Pretax (personal) income pc, sample A

Pretax Income includes: earnings, business income, capital income, transfers, FICA
• NIPA pretax income 20% larger than CPS pretax
• Gap larger in GR and COVID
Components of the pretax income Gap

- gap in transfers small on average, large in recessions
- gap in capital and business income always large
- later assess inequality impact of gaps
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 cyclical variations (COVID?)
• gap between surveys and FoF
• PSID \approx SCF except during equity booms
• CE wealth very low
Inequality dynamics roadmap

- individual wages →
- individual earnings →
- HH earnings/income →
- HH expenditures and wealth
- not cyclical
- flat at the bottom
- post GR: keeps increasing at the top
Wage premia

College Premium

Men

Women
Wage premia

College Premium

Men

Women
Wage premia

- post GR: end of the rise in college premium
Wage gaps

- **post GR**: further closing (at slower pace) of gender gap
- **little change in race gap**
Gender gaps across the wage distribution over past 15 years

- Increase in inequality at top both for men and women
- Largest gender gap at the top
• men earnings inequality increase both at the top and bottom
• top: only secular driven by wages
• bottom: cyclical and secular, driven by hours
Earnings Gender Gaps

Hours (sample B)

- 1967-1997: women faster wage and hours growth: great earnings equalization
- 1997-2020: hours equalization over, wage equalization slower
- Gender gap in hours AND wages around 25%

Wages (sample C)
From individuals to households
Household inequality: Sample B

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

- Market income of bottom 20% of households still at 1967 level (after the GR boost and boom)
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• Market income of bottom 20% of households still at 1967 level (after the GR boost and boom)
• 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
Assessing the impact of missing income in CPS

- CPS might miss substantial fraction of capital and business income and, during COVID, transfers
- assess inequality impact by rescaling CPS figures by the average NIPA/CPS ratio in income category
- rescaling is not uniform across households because many households report 0
Rescaling capital income has significant impact on both level and trend of inequality at the top.
Impact of rescaling on inequality (90/20)

- Missing capital income underestimates inequality level & growth
- Missing transfers overestimates inequality in Covid
- Overall inequality trend over past 15 years not much affected
Household Expenditure Inequality: Sample B, CE

- Dynamics of income inequality in CE very similar to CPS
- Still no increase in expenditure inequality
- Same results using PSID expenditures
• Dynamics of wealth inequality driven by house and stock prices (Kuhn et al. 2020)
• In recent years (still missing COVID data in SCF and PSID) wealth inequality declining (raising home prices?)
Earnings Volatility

![Graph showing earnings volatility over time with different datasets: CPS, hh, CPS, ind., LEHD (grid), ind., and CE, hh. Each dataset is represented by a line on the graph, with the y-axis representing the standard deviation of residual earnings growth.](image-url)
Lessons from U.S. Survey data over the past 15 years

- The rate of increase in income inequality has moderated, however inequality at the top still increasing
- Growth of college premium and gender/race equalization have stopped
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- Consumption expenditure inequality still flat throughout
- Wealth inequality increase around great recession, declines after