

Real-Time Inequality

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Motivation: Lack of Timely Data on Inequality

A lot of data on the current state of the US economy gets released from a variety of sources at a high frequency:

- ▶ Estimates of GDP are released less than a month after each quarter.
- ▶ Detailed personal income, employment and earnings every month.
- ▶ Unemployment claims every week.

These indicators are heavily scrutinized by policymakers, the business community, the press, etc., and used to analyze the business cycle.

But they don't tell us — at least not explicitly — about the distribution.

Motivation: Lack of Timely Data on Inequality

In comparison, the available data on the distribution of income is lacking:

- ▶ Distributions from tax statistics available with lag ≥ 2 years.
- ▶ Current Population Survey available monthly, but only for wage earnings, for a small subsample, doesn't capture the top.

This limits the ability of policymakers to design effective policies:

- ▶ **During Covid:** Did government redistribution undershoot? Overshoot?
- ▶ **Today:** Are real wages rising for low-income workers?

Our goal: Mobilize all public data to build real-time inequality statistics.

Contribution: Monthly microdata matching macro totals

This project: **prototype real-time monthly distributional national accounts:**

- ▶ **Output:** Monthly synthetic microdata, which distributes all of national income and wealth to individuals, matching macro totals.
- ▶ Following a recession, this can be used to compute “distributional output gaps:” which groups of the population are below their pre-crisis income level or trend.
- ▶ Incorporate all taxes and government transfers → reveal how national income is distributed and redistributed month-to-month.

Estimates available on realtimeinequality.org within a few hours of the publication of the national accounts:

- ▶ Based solely on **public data**.
- ▶ Synthetic microfiles available as well.

Our Website realtimeinequality.org Shows Who Benefited from Growth Last Quarter?

Real income growth per adult in the last quarter (2022-Q1)

Growth rates, gains, and income levels are annualized.

Period: ☐ Last Calendar Year ☒ Last Quarter

Sort by: Group ↓ Growth (%) Gain (\$) Income

Group	Growth (%)	Gain (\$)	Avg. Income
● Total	0.5% ↑	\$470	\$87k
● Bottom 50%	5.1% ↑	\$990	\$20k
● Middle 40%	1.6% ↑	\$1.5k	\$92k
● Top 10%	-1.4% ↓	\$-5.9k	\$410k
● Top 1%	-3.1% ↓	\$-53k	\$1.7M
● Top 0.1%	-3.6% ↓	\$-270k	\$7.5M
● Top 0.01%	-2.6% ↓	\$-860k	\$34M

Methodology and Validation

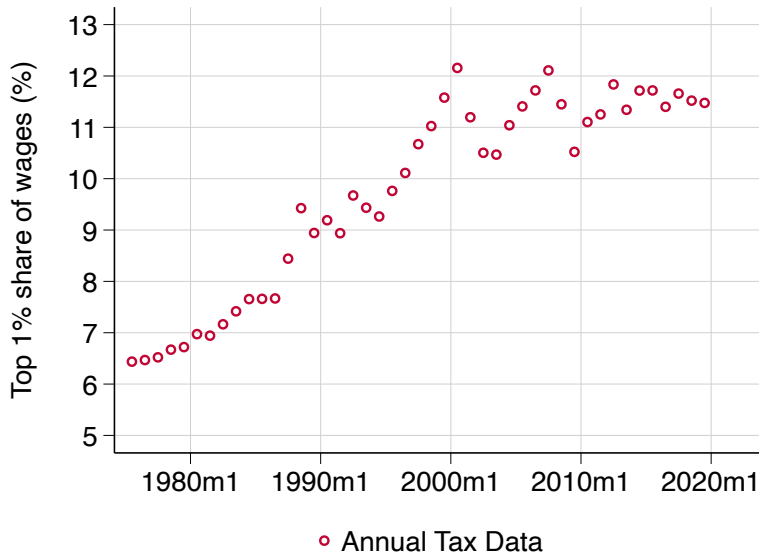
We combine all the publicly available data:

- ▶ Annual distributional national accounts data (Piketty, Saez and Zucman, 2018) based on public-use tax microdata
- ▶ One-to-one statistical match with surveys (CPS, SCF)
- ▶ Adjust files to incorporate high-frequency information from:
 - ▶ Monthly and quarterly national accounts (NIPA)
 - ▶ Quarterly Census of Employment and Wages (QCEW)
 - ▶ Current Employment Statistics (CES) series
 - ▶ Monthly CPS, unemployment benefits, ...

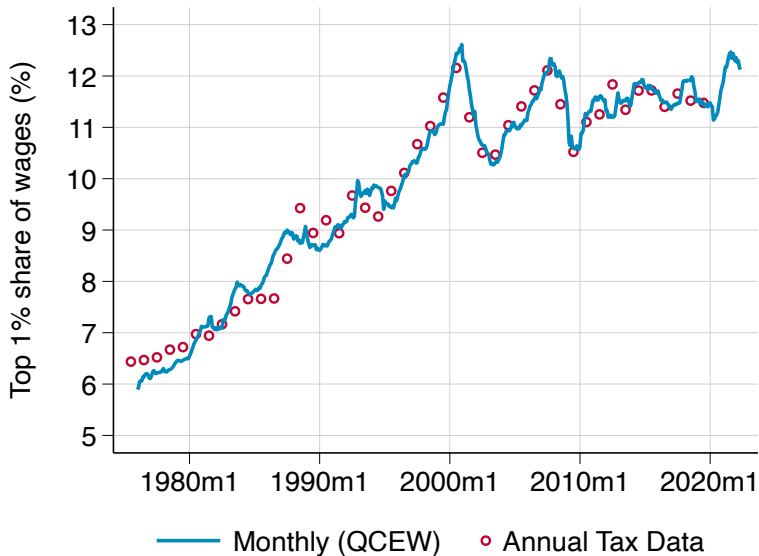
The resulting datasets:

- ▶ Add up to each component of national income.
- ▶ Can be used to compute any inequality statistics in real time (income, wealth, wage, racial gaps, gender gaps, ...).

Rise of Top 1% Wage Share in Tax Data

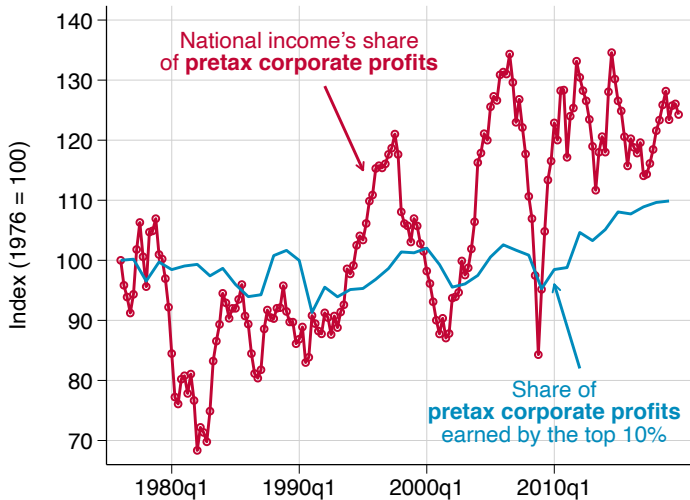


QCEW Captures This Rise Remarkably Well



Capital Incomes: We Simply Rescale to Macroeconomic Aggregates

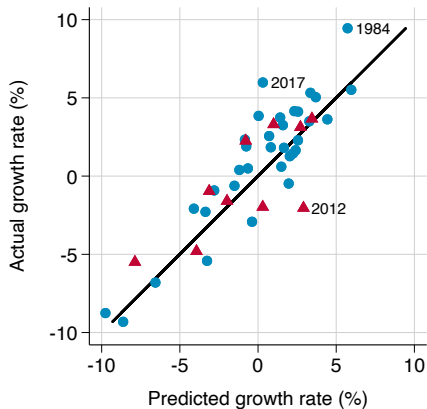
This Works Because Aggregate Profits Are Volatile, Their Concentration is Not



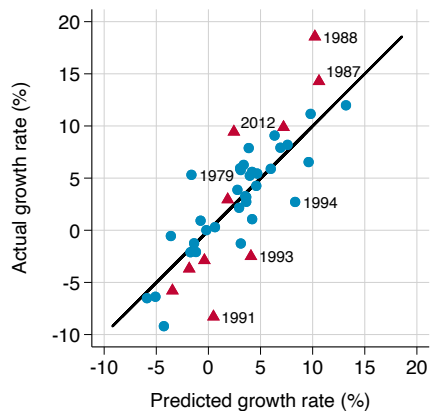
We Validate Our Methodology by Applying It Retrospectively

Our Methodology Successfully Predicts Annual Growth Rates

Bottom 50%

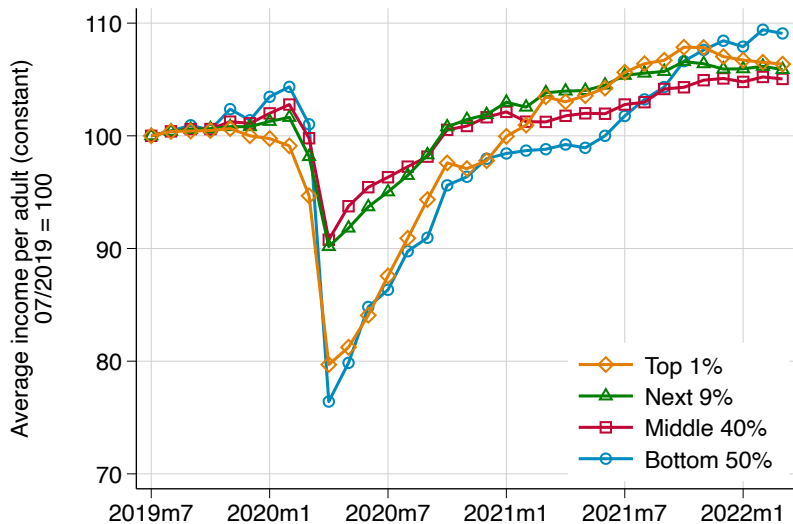


Top 1%

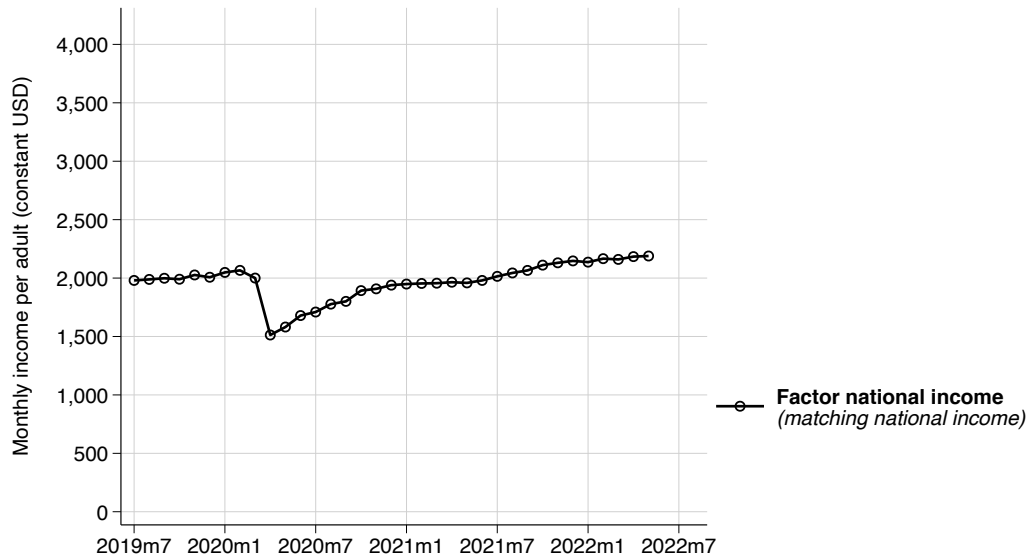


The Distribution and Redistribution of National Income During Covid

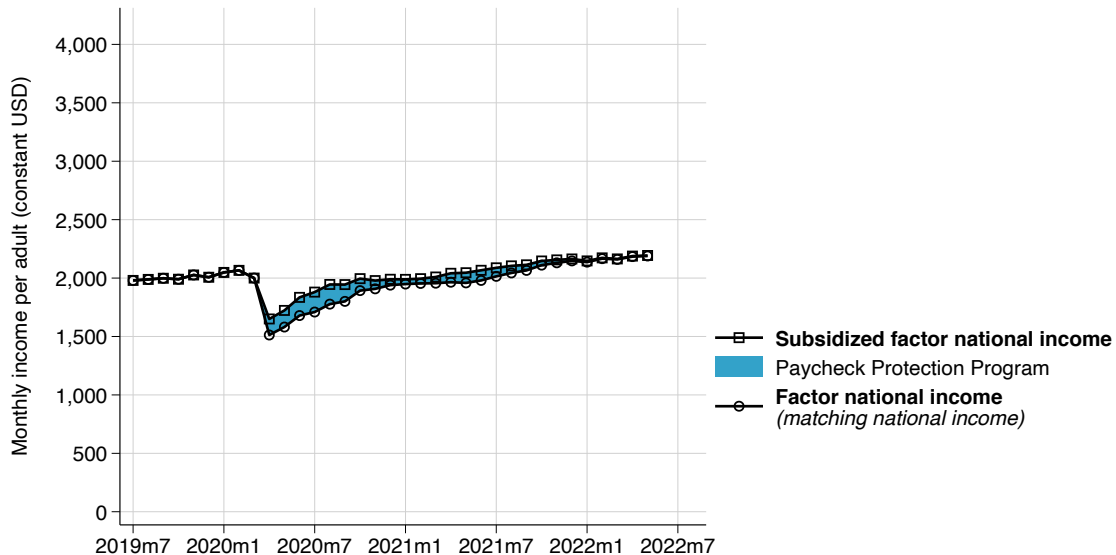
COVID Crisis: All Groups Recover Within 20 Months



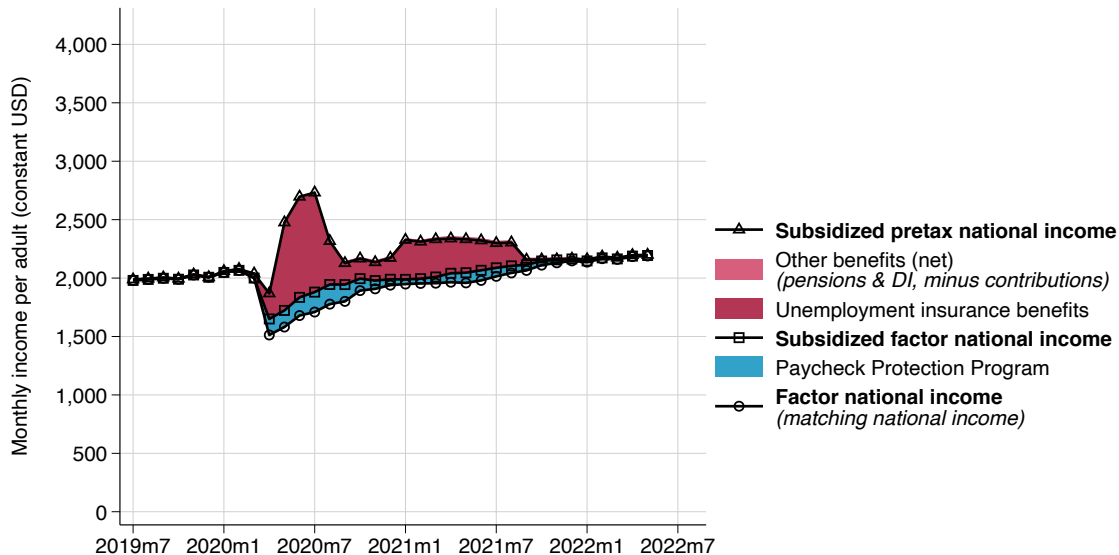
Bottom 50% Incomes: The Role of Government Transfers



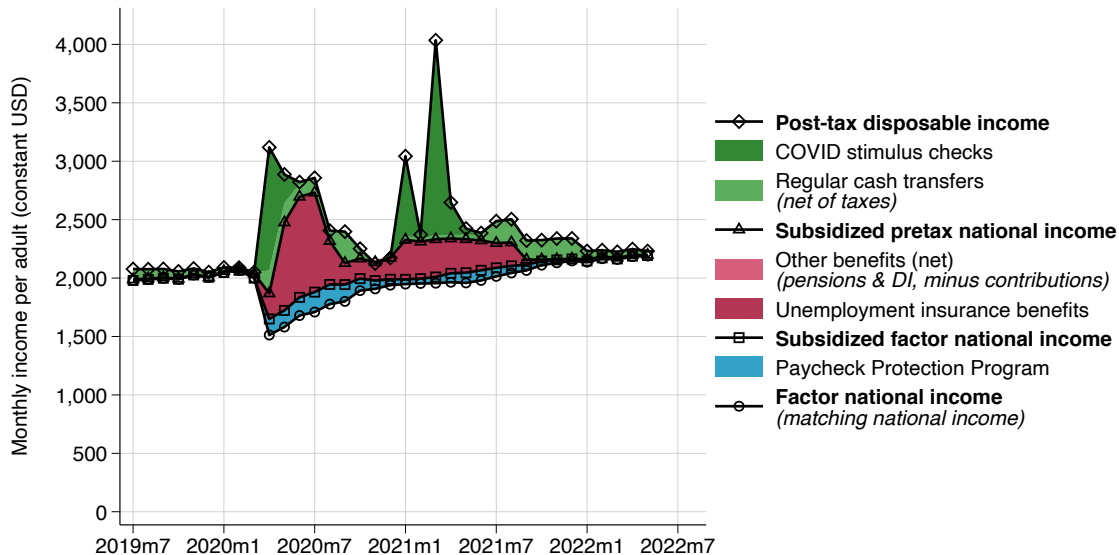
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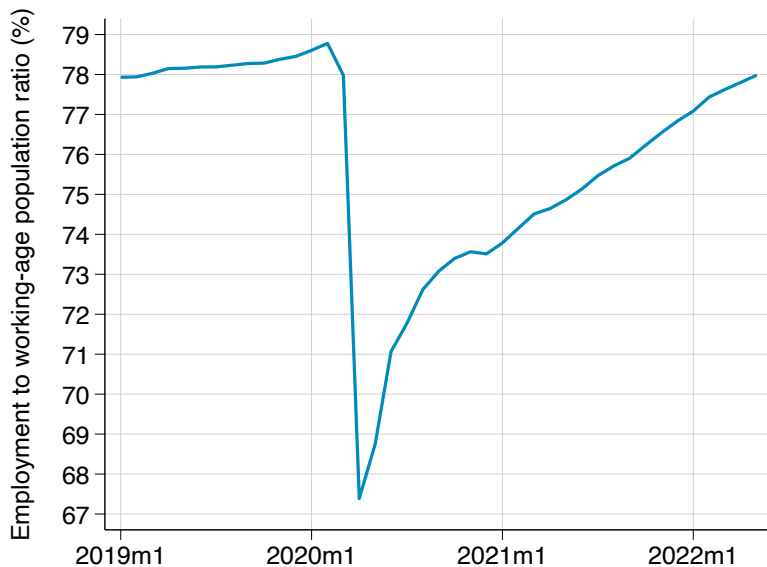


Bottom 50% Incomes: The Role of Government Transfers



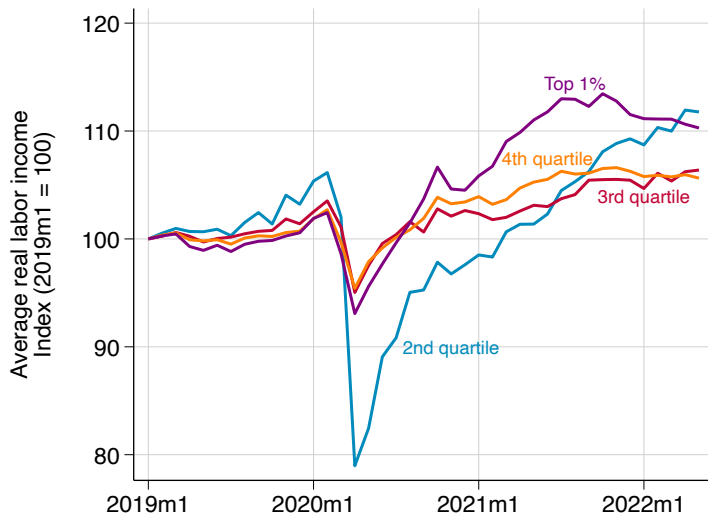
The Post-Covid Recovery:
Is Real Labor Income Growing?
For Whom?

Employment Rate Is Back to Pre-COVID Levels

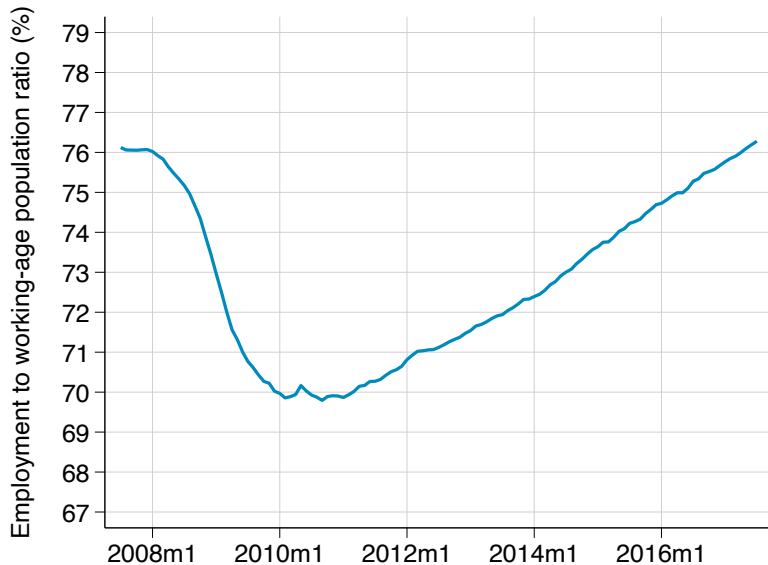


The Tight Labor Market Benefits Low-Wage Workers

Real Labor Income Per Working-Age (20–64) Adult

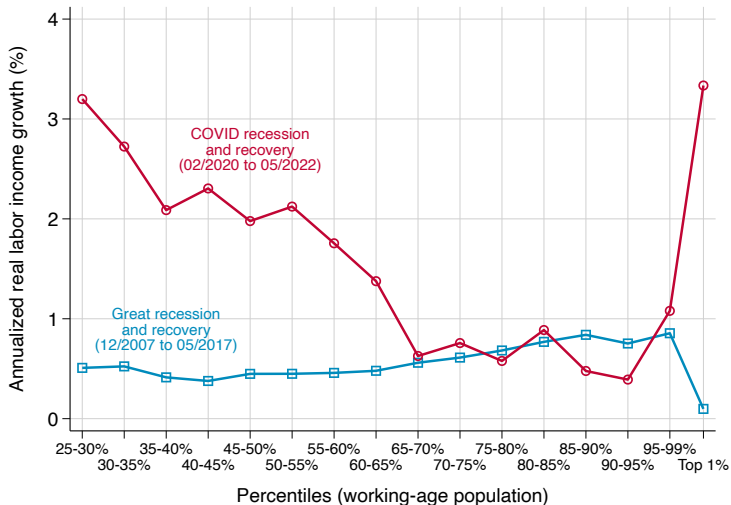


After the Great Recession, Employment Took 10 Years to Recover



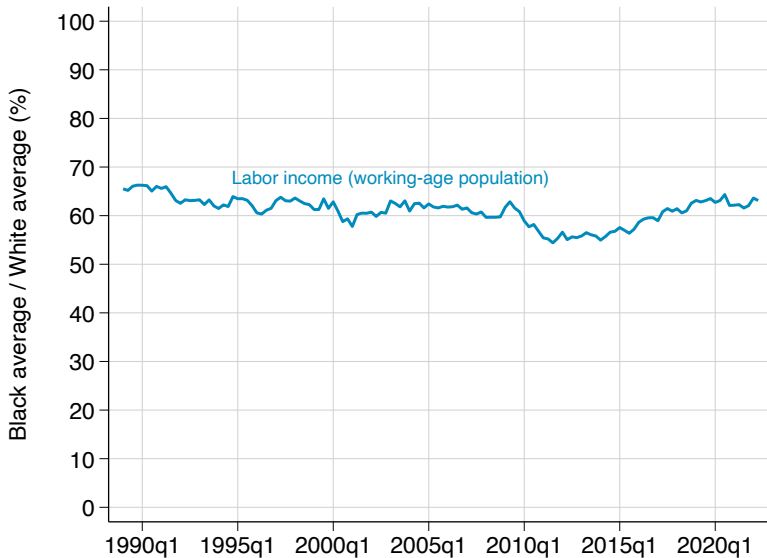
Dramatic Contrast Between the COVID Recovery and Great Recession

Annual Real Growth In Labor Income by Percentile

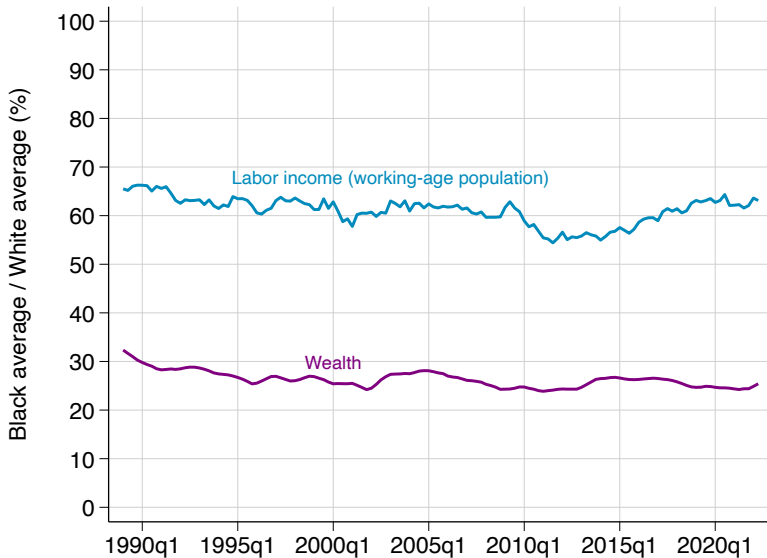


Crisis and Recovery by Race and Gender

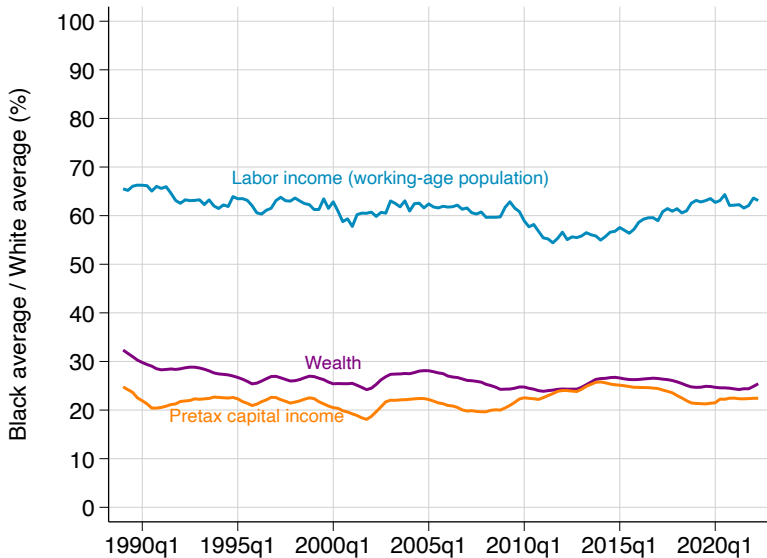
A Comprehensive Estimate of Black/White Economic Disparities



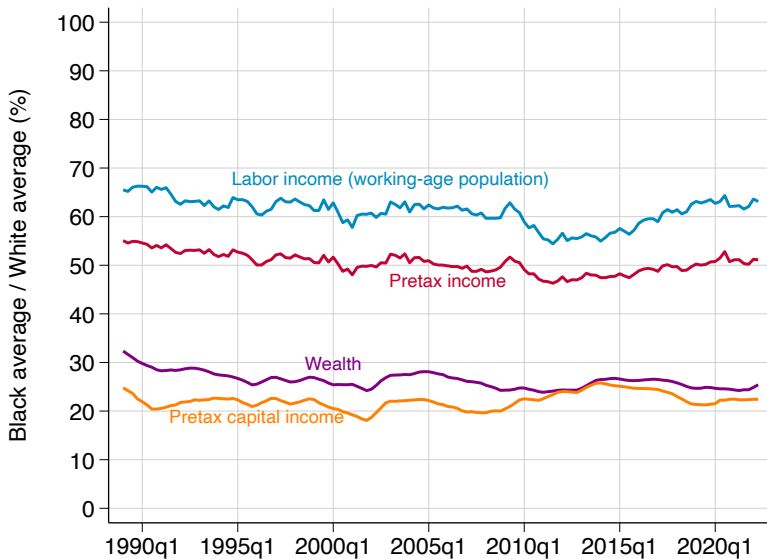
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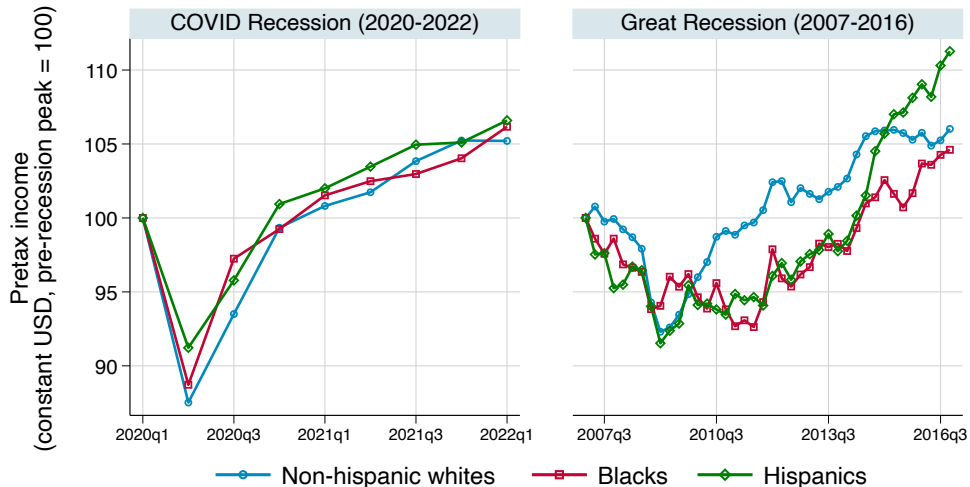
A Comprehensive Estimate of Black/White Economic Disparities



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Recessions and Recovery by Race and Ethnicity



A Covid “Shecession”? Recessions and Recovery by Gender



Conclusion

- ▶ It's possible to track inequality in near real-time.
 - ▶ Estimates based solely on public data.
 - ▶ Prototype to be improved and run by government agencies down the road.
 - ▶ Stark contrast between the recoveries from the last two recessions.
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- ▶ realtimeinequality.org
 - ▶ Updated daily for wealth, quarterly for income.

Supplementary Slides

Backtests (Share)

