
Unemployment Insurance in Surveys and Administrative Data

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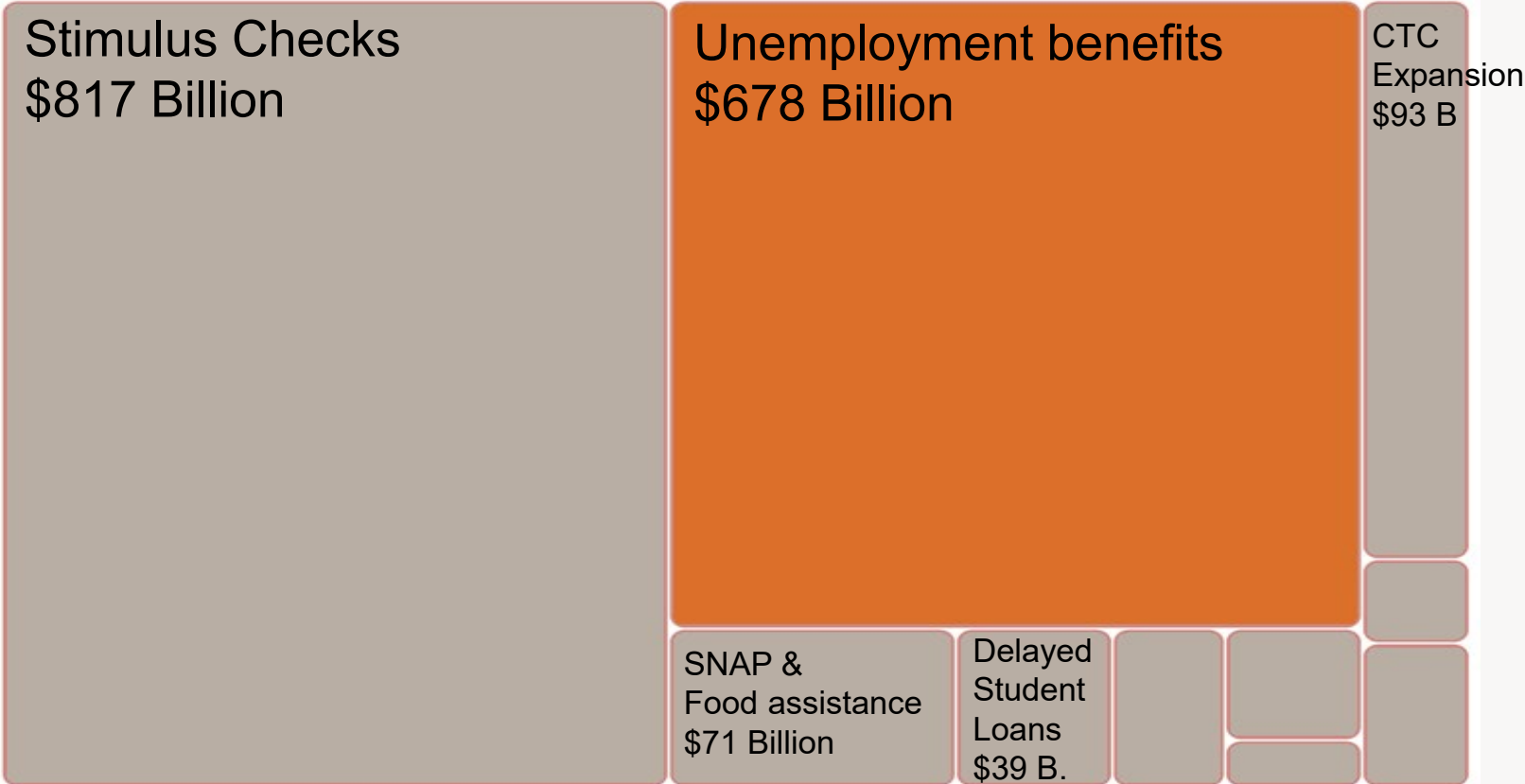
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Why care about UI?

Major part of direct Covid fiscal relief

Relief to individuals and families



Note: As of March 2022. Source: Center for a Responsible Federal Budget and the [New York Times](#)

Our goals

Severity of Underreporting

- Do CPS estimates of UI match administrative records? (in 2020 ~half)

Effects on Poverty

- How does correcting UI change poverty estimates? (In 2020 decrease ~2 p.p)

Tax Implications

- Does UI tax exclusion distribution differ from UI benefits? (Yes, less progressive)

Data Contribution

- We provide public-use imputation data to correct UI amounts in the CPS

Data: IRS

- 5% sample of people in tax data (2000-2021)
- Tax data contains ~99% of US residents (Larrimore, Mortenson, and Splinter 2021)
- Restrict to ages 15+ (matching CPS)
- **How UI appears in tax records**
 - *IRS Form 1099-G*: Produced by state governments. Shows amount of UI paid to each individual, including non-filers.
 - *IRS Form 1040*: Self-reported UI receipt among filers
 - We take the higher value from these forms

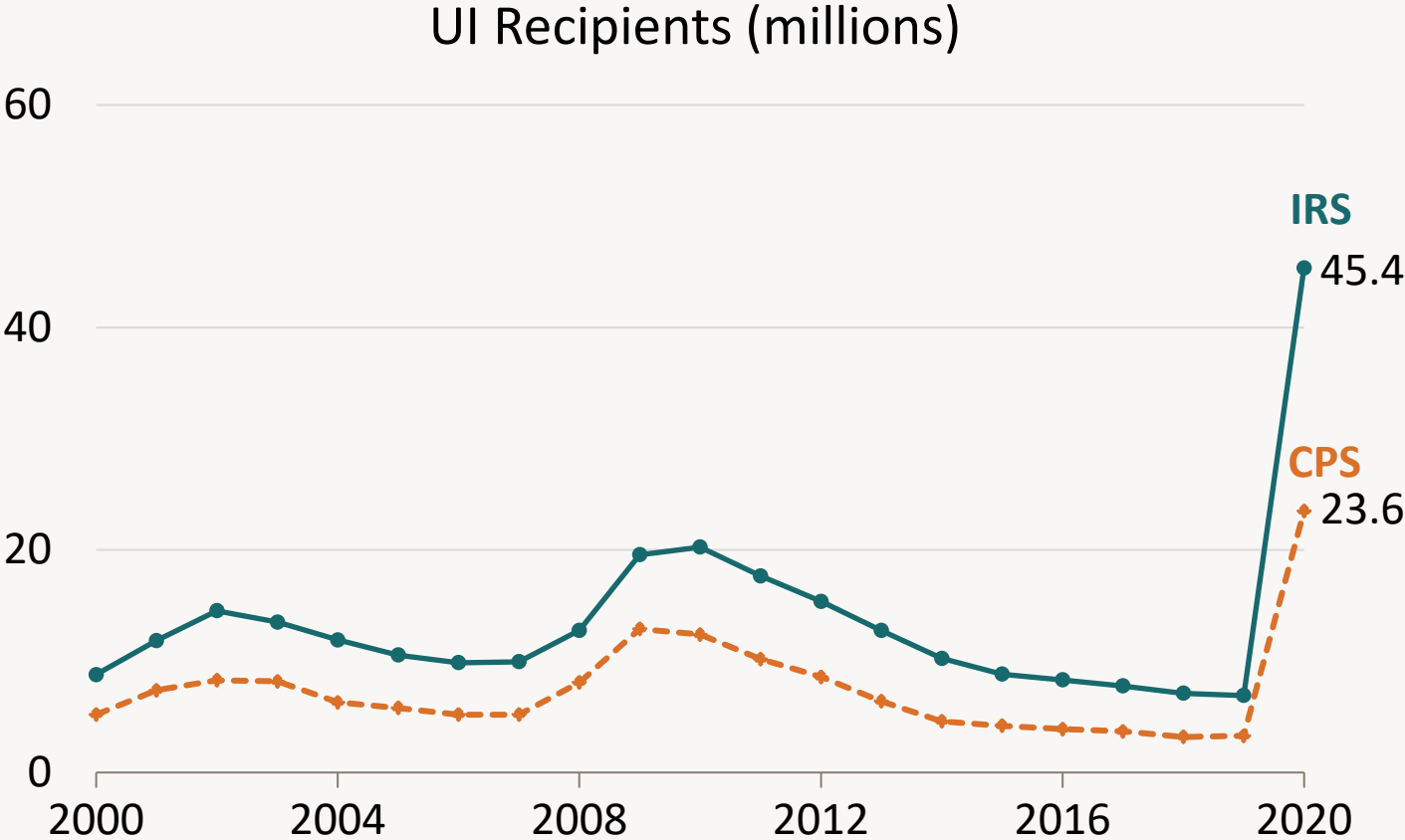
Data: CPS

- Compare IRS results to the March CPS-ASEC
- Use Rothbaum and Bee (2021) corrected weights
- **CPS questions (March 2021)**
 - *At any time during 2020 did you (you/anyone in the household) receive any ...*
 - *State or Federal unemployment compensation?*
 - *Supplemental Unemployment Benefits (SUB)?*
 - *Union Unemployment or Strike Benefits?*
 - ***If Received UI, ask amount:***
 - *How much did (name/you) receive (weekly/every other week/ twice a month/monthly) in ...*
 - *State or Federal unemployment compensation during 2020?*
 - *Supplemental Unemployment Benefits during 2020?*
 - *Union Unemployment or Strike Benefits during 2020?*

Data: Income groups

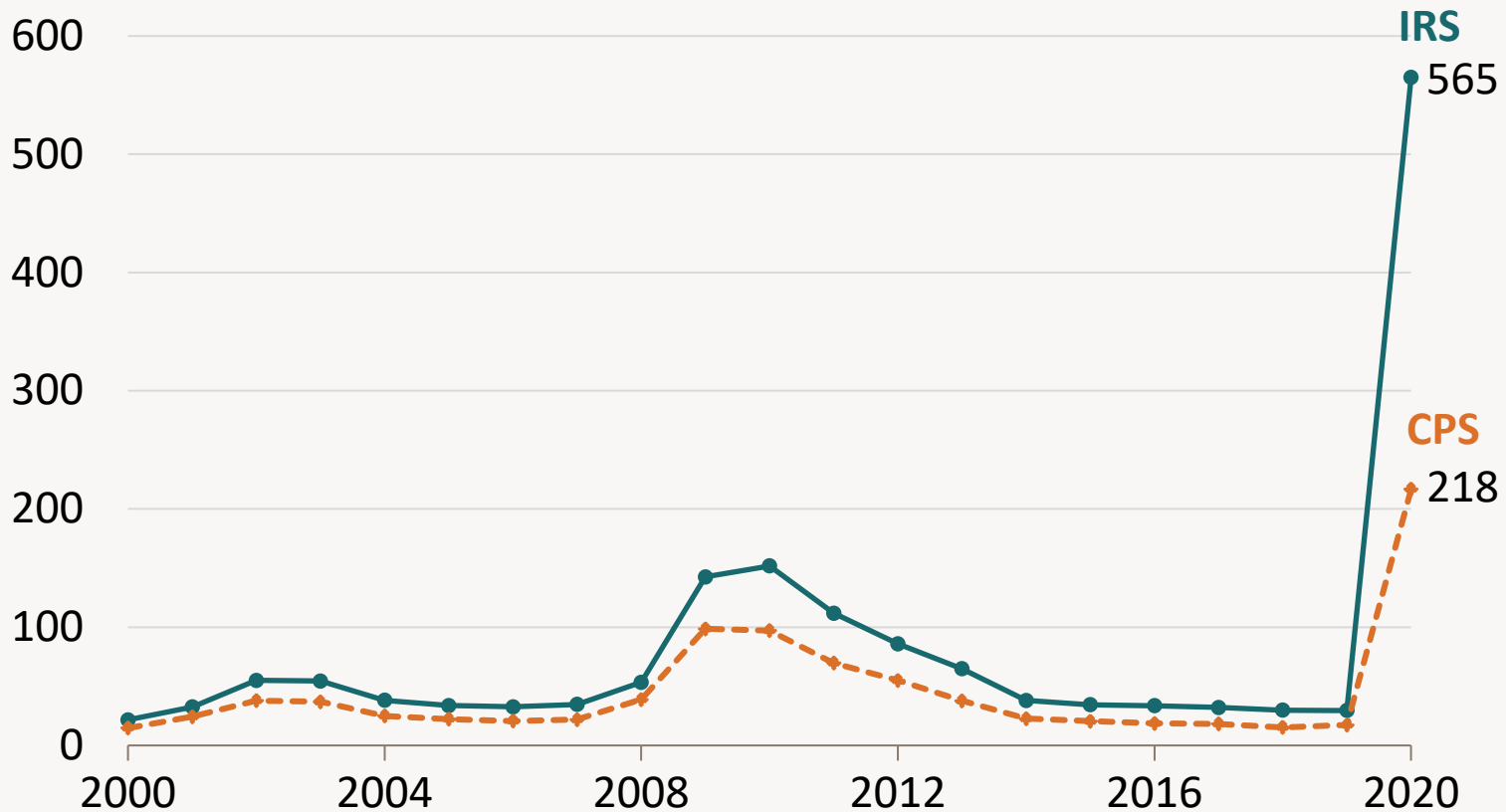
- Group individuals in both datasets by *Modified Market Income*
- ***INCLUDES income in both datasets:***
 - *Market income (wages, salaries, self-employment, interest, dividends, rents, pensions)*
 - *Alimony*
 - *Social Security and Disability*
- ***EXCLUDES UI***

CPS had 22 million fewer UI recipients than the IRS in 2020 ...



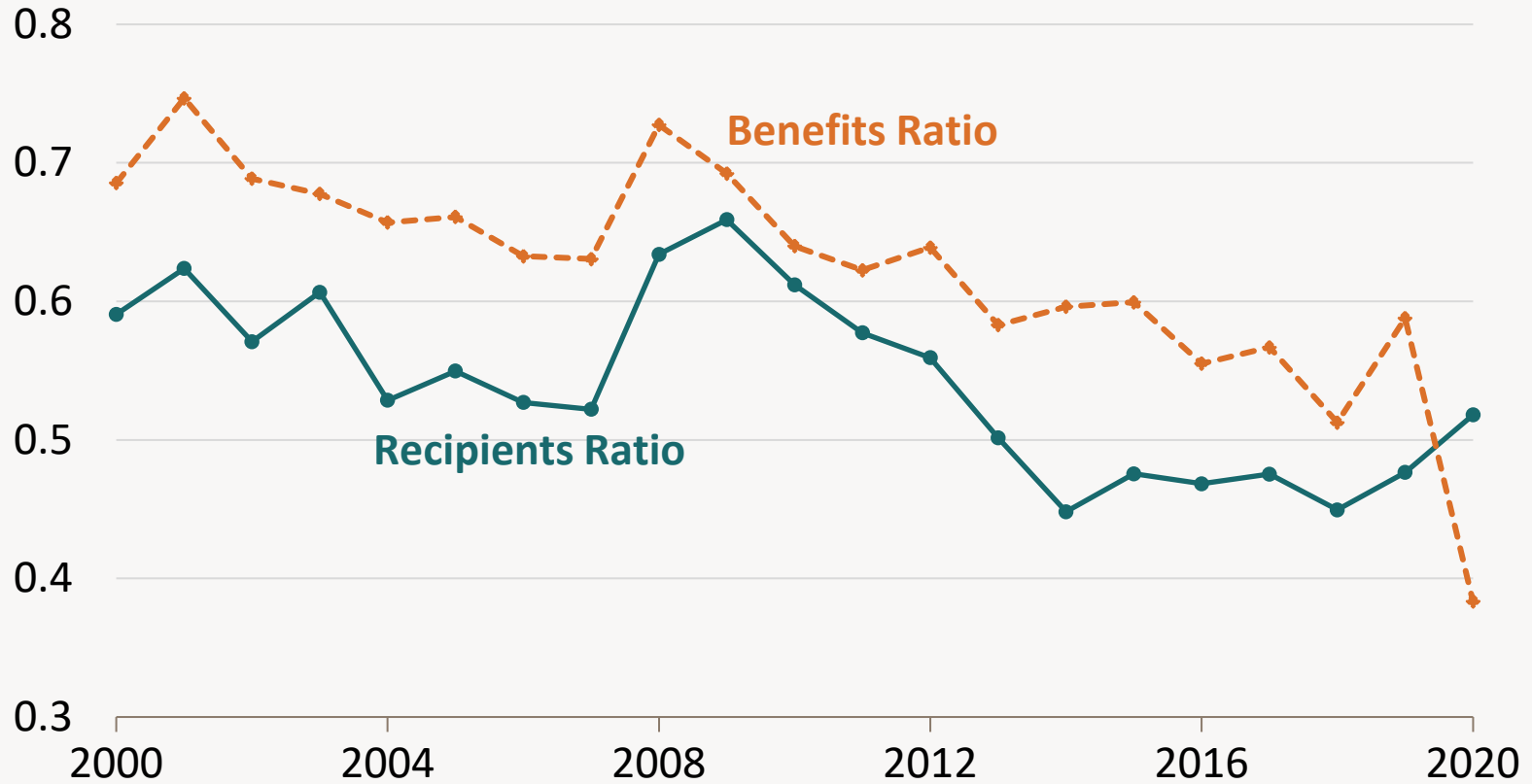
... and captured \$350 Billion less in benefits

UI Benefits (\$ billions)

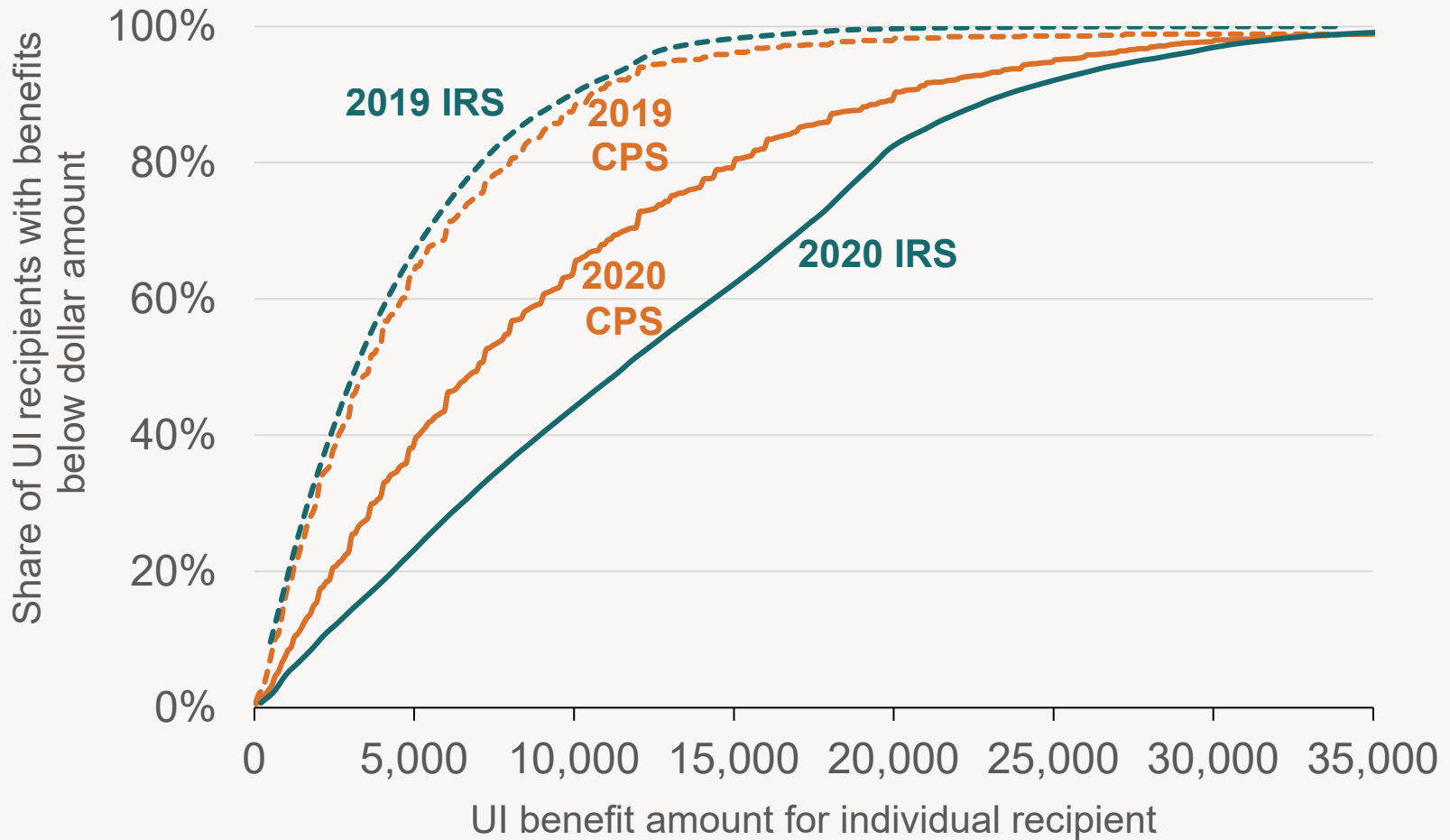


Underreporting occurs in all years, but matters more in 2020 due to larger amounts

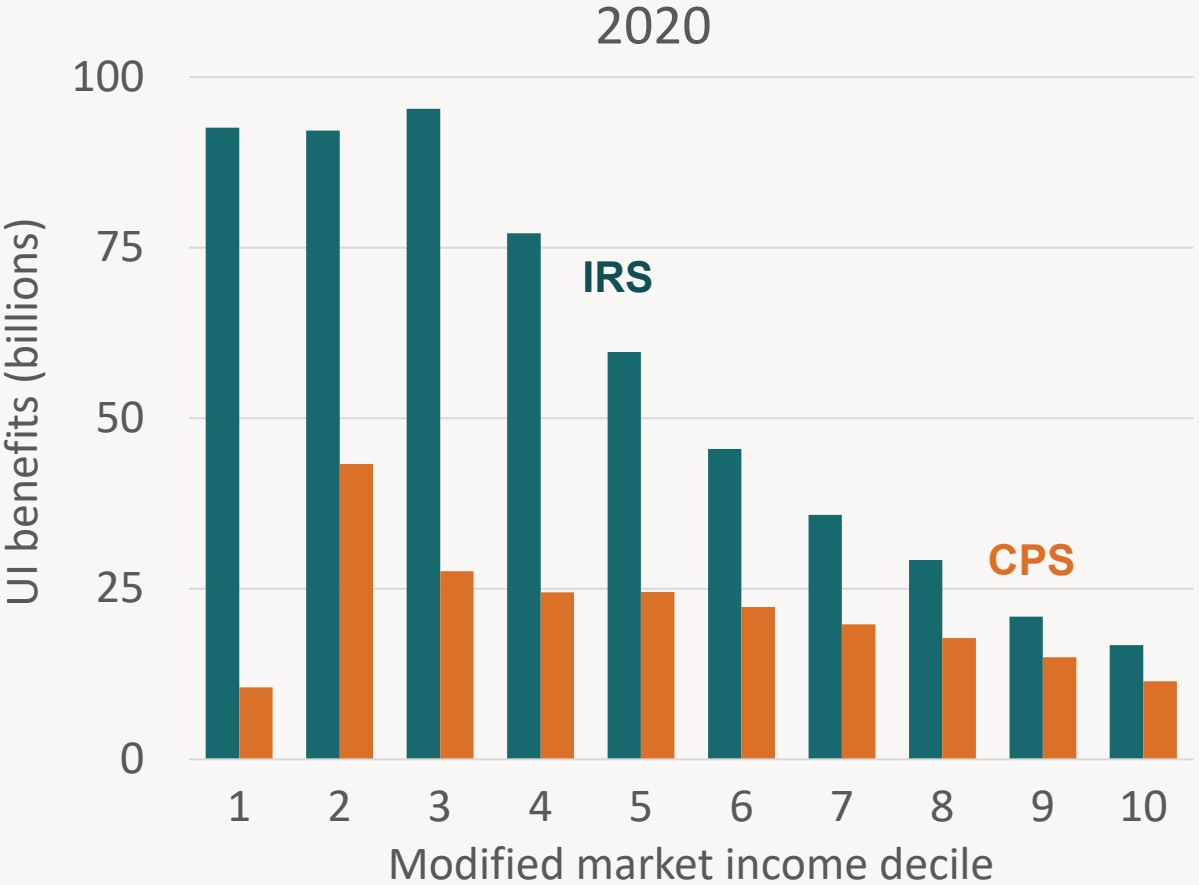
Ratios of CPS to IRS benefits and recipients



Among recipients, distribution of benefits similar in 2019, not 2020



CPS misses UI disproportionately among low-income populations in 2020



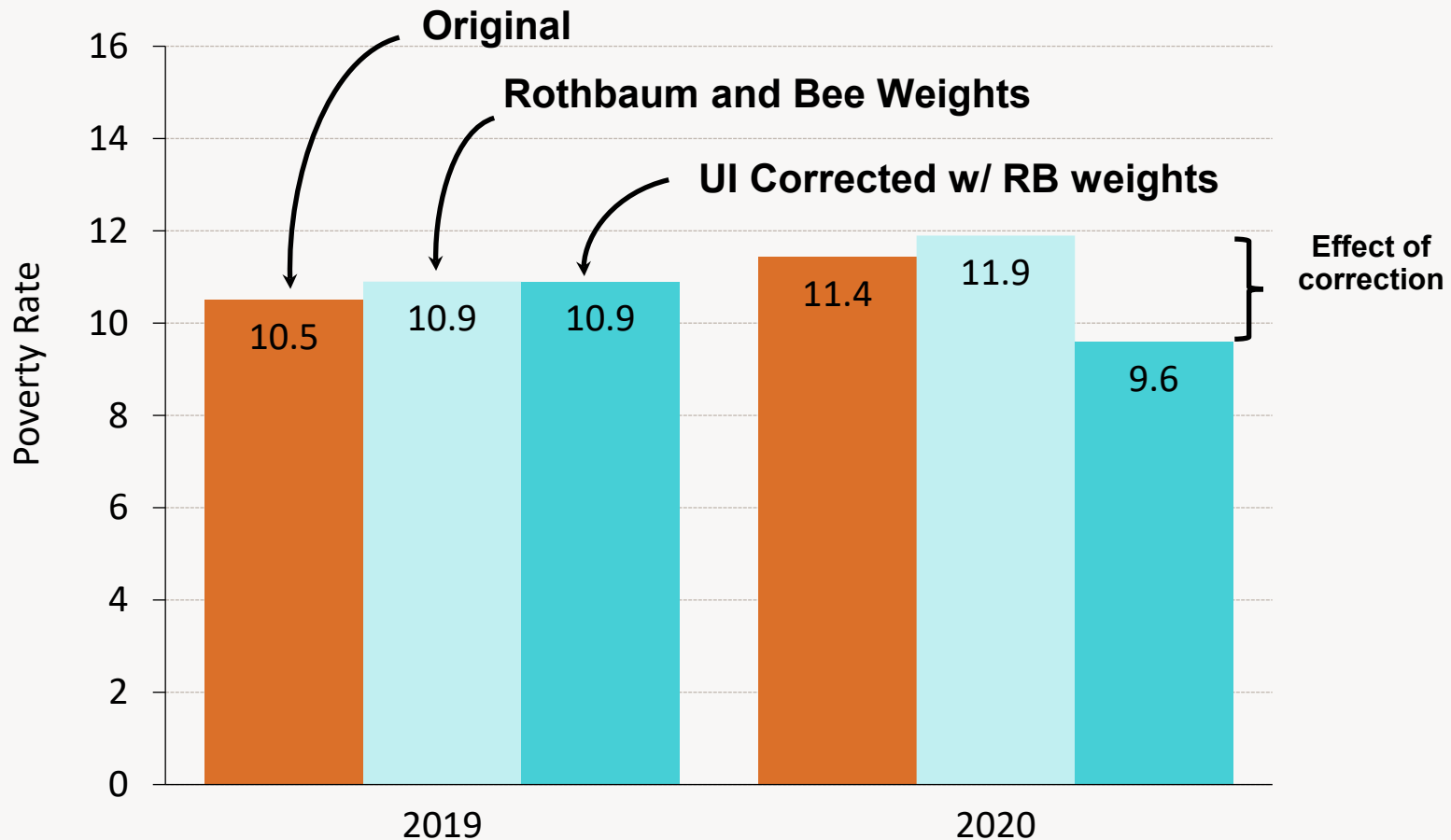
Impute corrected UI into CPS data

- Public-use UI imputation data based on IRS data available at davidsplinter.com
 - Contains recipient count and mean/SD of UI benefits for each centile of modified market income
- Individuals in CPS with benefits:
 - Unchanged
- Individuals in CPS without benefits:
 - Randomly impute recipients, prioritizing those with labor earnings, so recipient counts in each centile match IRS
 - Impute benefits using a normal distribution so final centile mean matches IRS data and standard deviation of imputed benefits also matches IRS data

Imputation assumptions

- After controlling for recent employment, receipt of unreported UI within percentile not correlated with household size
 - Functionally has little effect – changing recipients shifts poverty rates about 0.1 p.p.
- Unreported UI uncorrelated with non-taxable transfers not observed in tax data
- *Note: if using imputation to explore subgroups (race/age), must also assume underreported UI not correlated with group characteristics after controlling for income and recent employment*

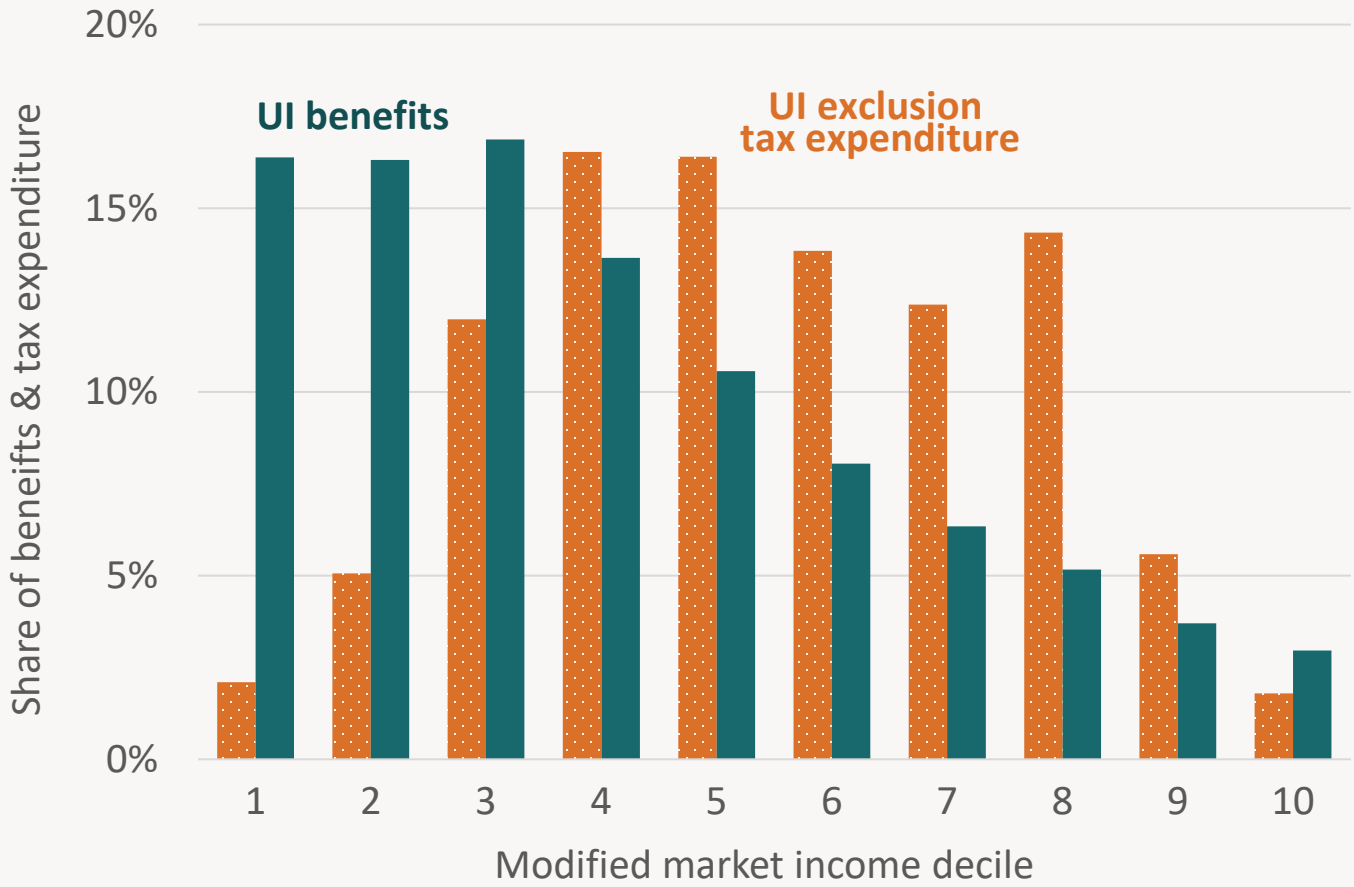
After correcting for UI, poverty fell in 2020 rather than increased



UI tax expenditure

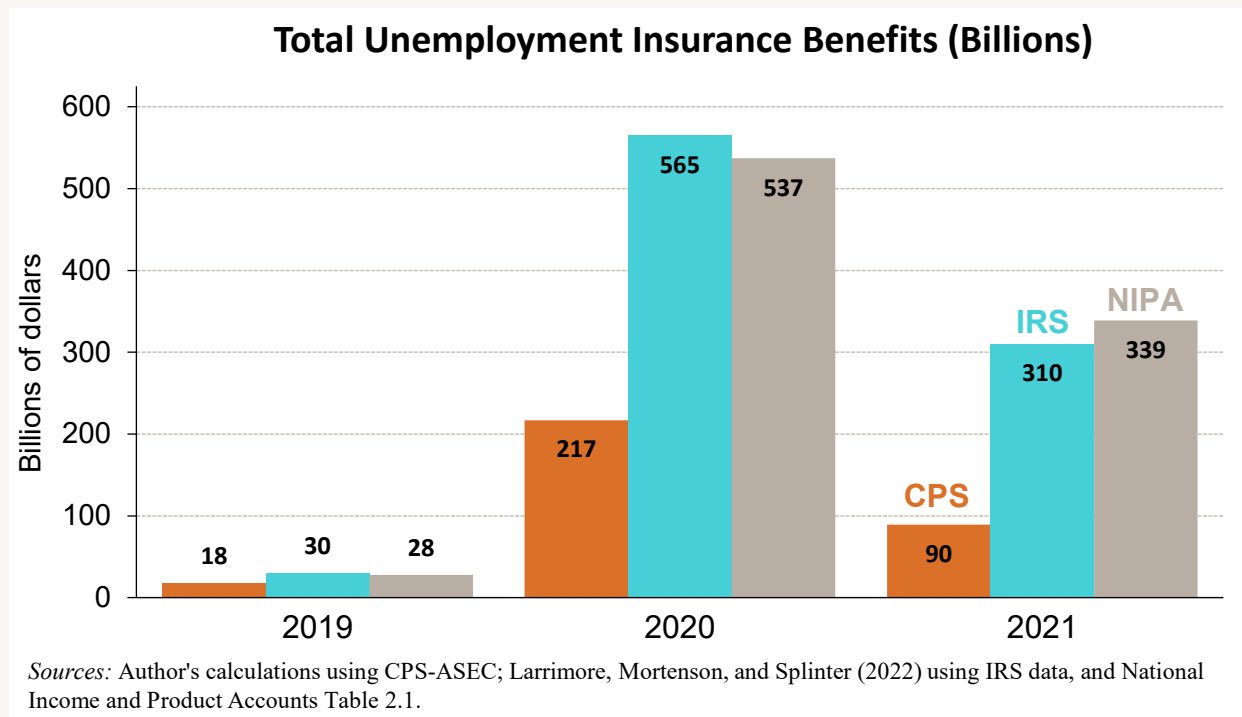
- Normally UI benefits are taxable
- The American Rescue Plan Act of 2021 excluded \$10,200 of UI compensation per person from taxation for most people
- Distribution of these benefits will depend on both amount of UI and tax rates

UI benefits concentrated among low-income, tax expenditure is not

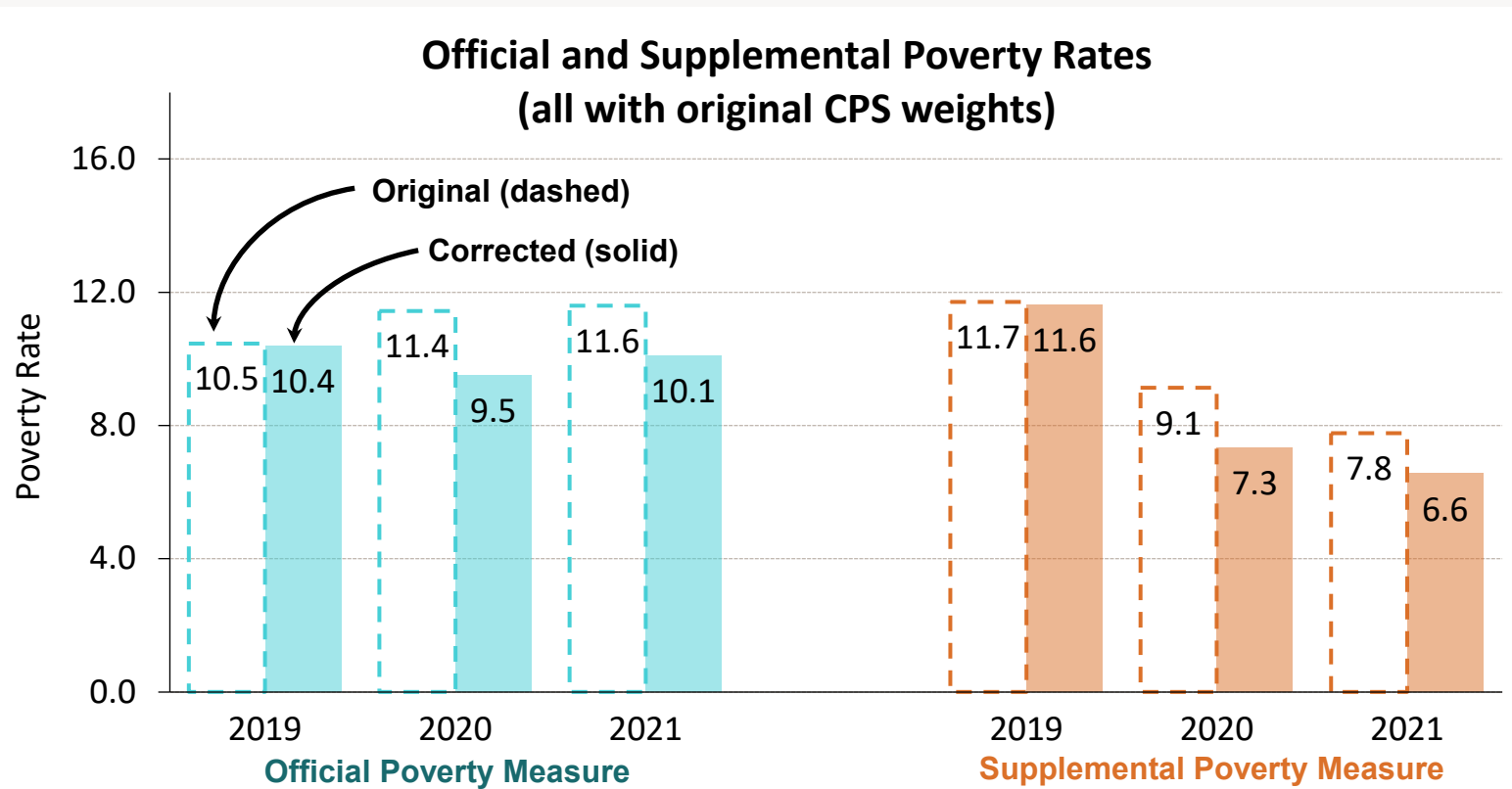


2021 update: UI benefits still an issue

- Enhanced UI benefits continued into 2021
- Was this still an issue for CPS data and poverty? [Yes](#)



2021 update: poverty rates continue to be overstated due to missing UI



Source: Author's calculations using CPS-ASEC data and UI data from Larrimore, Mortenson, and Splinter (2022).

Note: Original values are from the public use CPS-ASEC data, which differ slightly from results in Census Bureau (2022). Figure uses original CPS-ASEC

Source: [Larrimore \(2022\)](#)

Conclusions

- Unemployment Insurance is severely underreported in the CPS-ASEC
- During the pandemic, this had a material effect on poverty rates
 - Using our correction for this underreporting, poverty (using the OPM) fell in 2020 and was 2 percentage points below that originally reported
- Underreporting of UI and overreporting of poverty continued into 2021
- Researchers using public-use CPS can use our summary [data](#) and [code](#) to correct for UI underreporting