

Progress on the National Experimental Wellbeing Statistics (NEWS) Project

Creating an Integrated System of Data and Statistics on Household
Income, Consumption, and Wealth
December 10, 2024

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*Any opinions and conclusions expressed herein are those of the authors and do not reflect the views of the U.S. Census Bureau. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product (Data Management System (DMS) number: **P-7524052**, Disclosure Review Board (DRB) approval numbers: **CDRB-FY23-SEHSD003-025** and **CBDRB-FY25-SEHSD003-020**).*

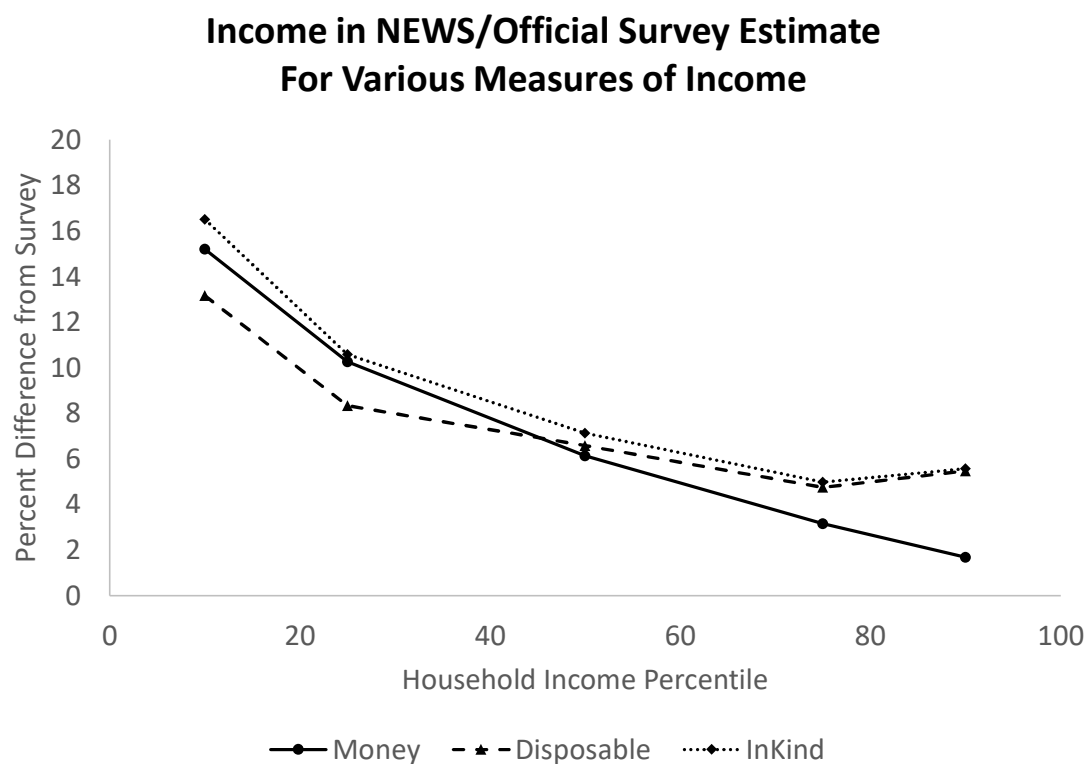
National Experimental Wellbeing Statistics (NEWS) Project

- What is NEWS?
 - Rethink how we produce income and resource statistics
 - What is the best possible estimate given all the data currently available at Census for a given income/resource statistic?
 - Address multiple sources of bias simultaneously
 - Apply research on addressing each

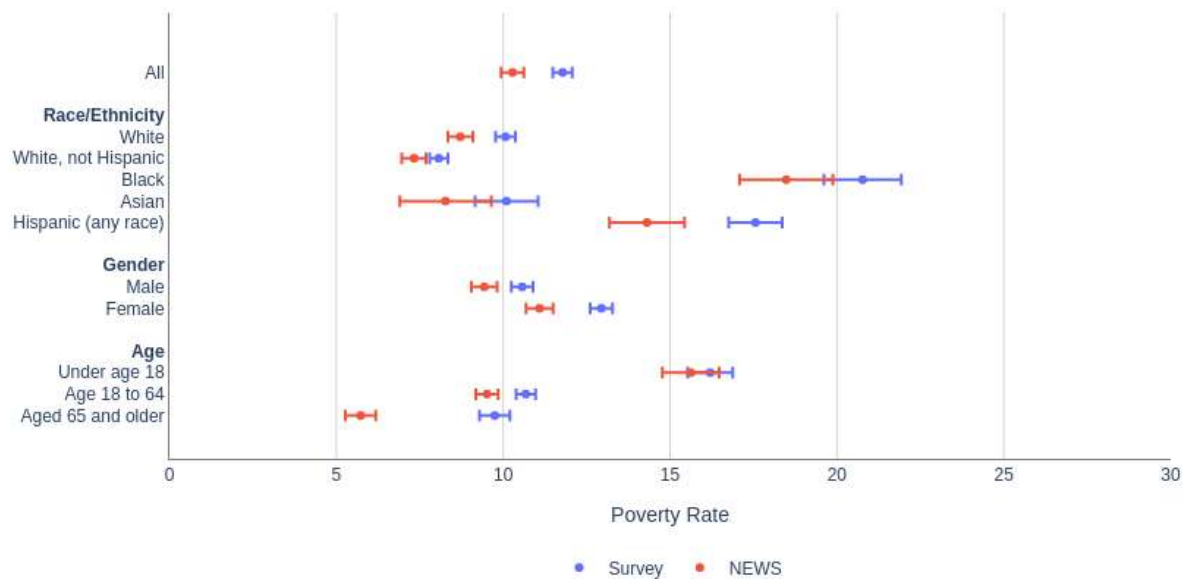
What Are We Planning?

- Release by mid January
 - More income/resource concepts - taxes, credits, and in-kind transfers, Supplemental Poverty Measure
 - Improved methods
 - Better – integrate machine learning models into imputation, more flexible weighting algorithm, better model to combine survey and administrative earnings
 - Faster – to move toward a goal of rapid releases with incomplete data
- More years (in addition to 2018)
 - 2019 and 2020 coming early next year
 - Other years after (should be relatively straightforward to do 2017-2022)
 - Other years require some additional work
 - Survey redesign (before 2017)
 - Unavailable administrative data (after 2022)

Results from Upcoming Release Income Measures

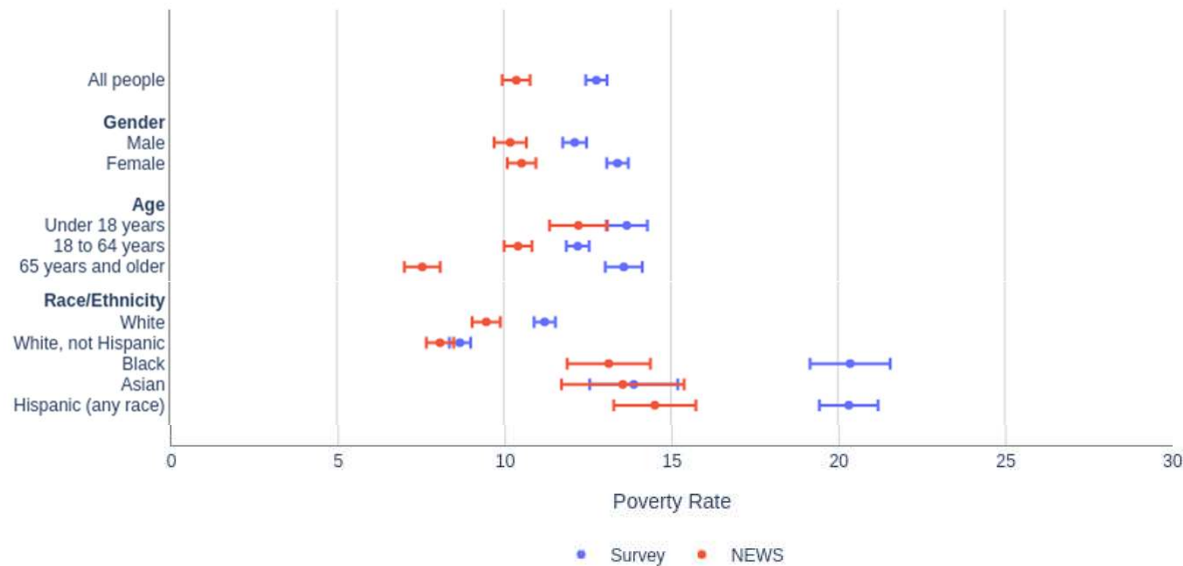


Results from Upcoming Release Official Poverty Measure



Source: 2019 Current Population Survey Annual Social and Economic Supplement linked to administrative, decennial census, and third-party data.

Results from Upcoming Release Supplemental Poverty Measure



Source: 2019 Current Population Survey Annual Social and Economic Supplement linked to administrative, decennial census, and third-party data.

Future Plans

- Integrate new data from IRS
 - Recently approved change in regulations
- Prepare for more years
 - Handle incomplete administrative data
 - Either because not available in the past or not yet available for timely estimates
- Finer geographies
 - Integrate American Community Survey data (~33x as large a sample as CPS ASEC)
 - Better use full universe administrative data

Feedback

Paper and estimates available at:

<https://www.census.gov/data/experimental-data-products/national-experimental-wellbeing-statistics.html>

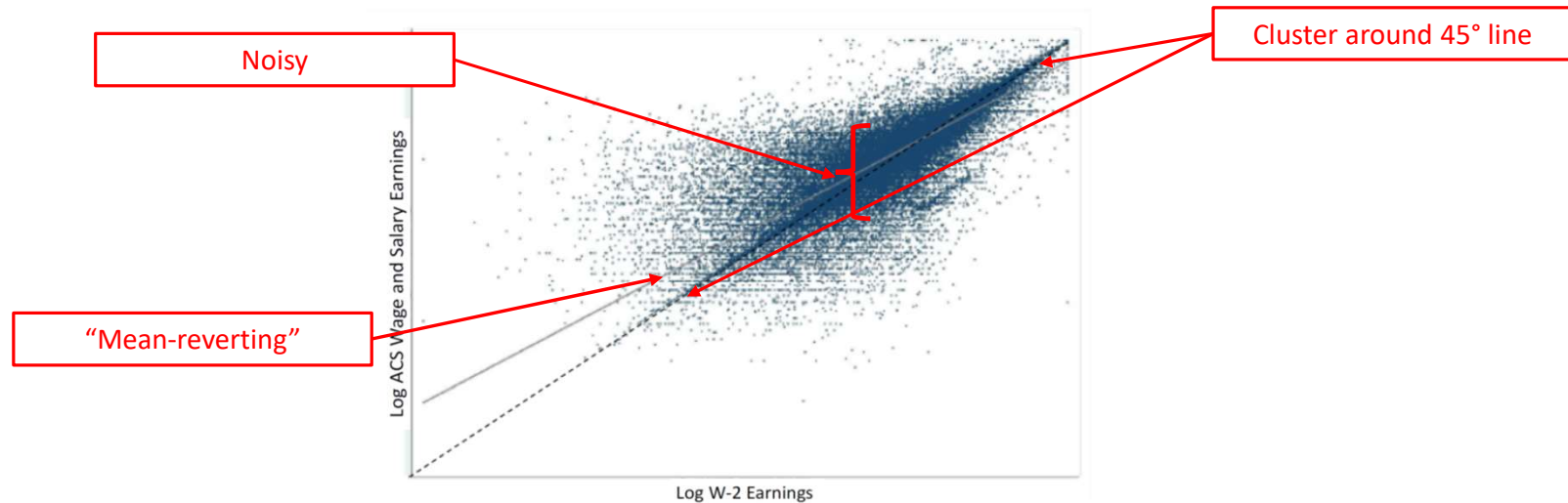
Please e-mail any comments, concerns, suggestions, and feedback to:

census.newsproject@census.gov

Extra Slides

Different Earnings Sources

W-2 vs. Survey Responses



Source: O'Hara et al. (2017) using the 2011 ACS linked to 2010 W-2 records.

Earnings Model

- Given observed
 - y_s - survey earnings
 - y_a - job-level administrative earnings
 - X - observable characteristics (in survey or administrative data)
- y^* - unobserved true earnings

Earnings Model

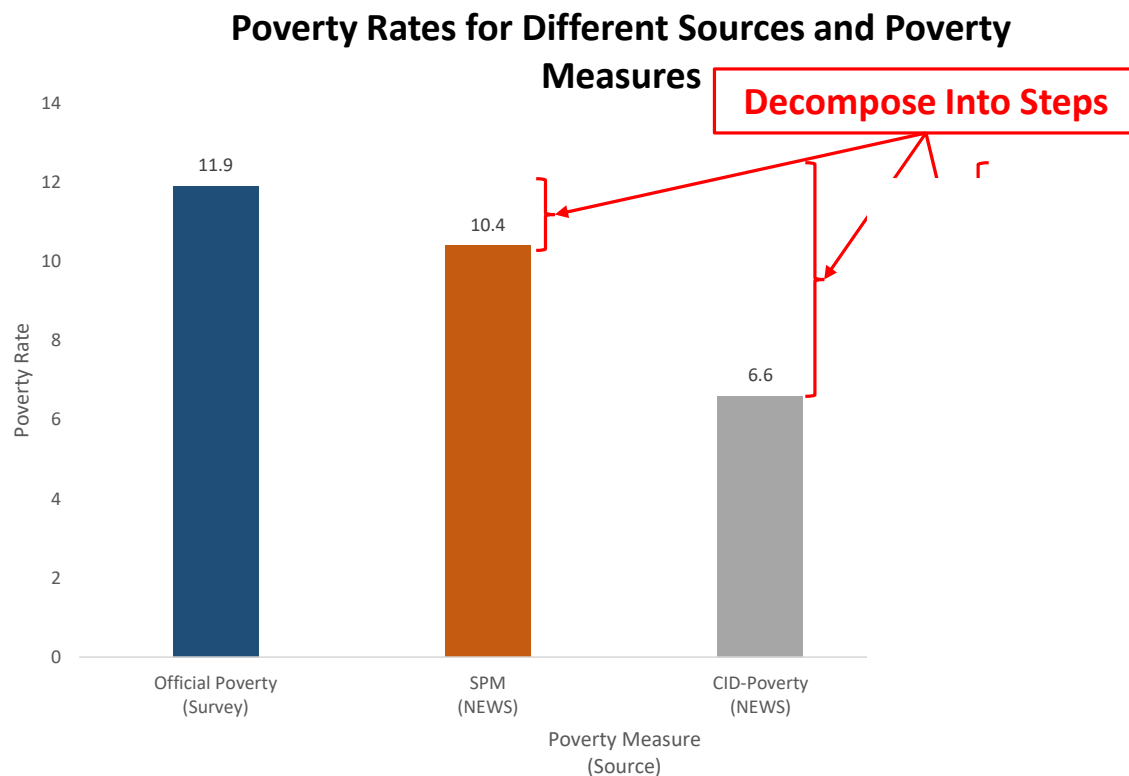
- Facts/Assumptions

- Administrative earnings are generally correct – evidence from audit studies
 - However, when *adrec* is incorrect, it can have missing earnings (under the table pay)
- Survey earnings agree with administrative earnings more than would be expected under standard measurement error assumptions
- Survey earnings are noisy, but we assume they are informative of the truth when *adrec* is not correct
 - They may pick up some of the earnings that *adrecs* are missing
 - When they're wrong, y^* could be less than or greater than y_a or y_s
 - Particularly important at low earnings levels

Earnings Model

- Model
 - Estimate $p(y_a = y^*|X)$ and $p(y_s = y^*|X)$ from observable $p(y_a \approx y_s|X)$
 - Then set earnings as:
 - y_a , if we draw $p_a \leq p(y_a = y^*|X)$, otherwise
 - y_s , if we draw $p_s \leq p(y_s = y^*|X)$, otherwise
 - Take a draw from an estimated posterior distribution of $f(y|X, y_a, y_s)$

Preliminary Results from Upcoming Release



Comparing NEWS to CID

Conceptual Differences

Changes in Poverty Moving From Official Poverty to Improved NEWS/CID Poverty Measures



Source: 2019 Current Population Survey Annual Social and Economic Supplement linked to administrative, decennial census, and third-party data and Meyer and Wu (2024) results from the Comprehensive Income Dataset (CID).

Comparing NEWS to CID

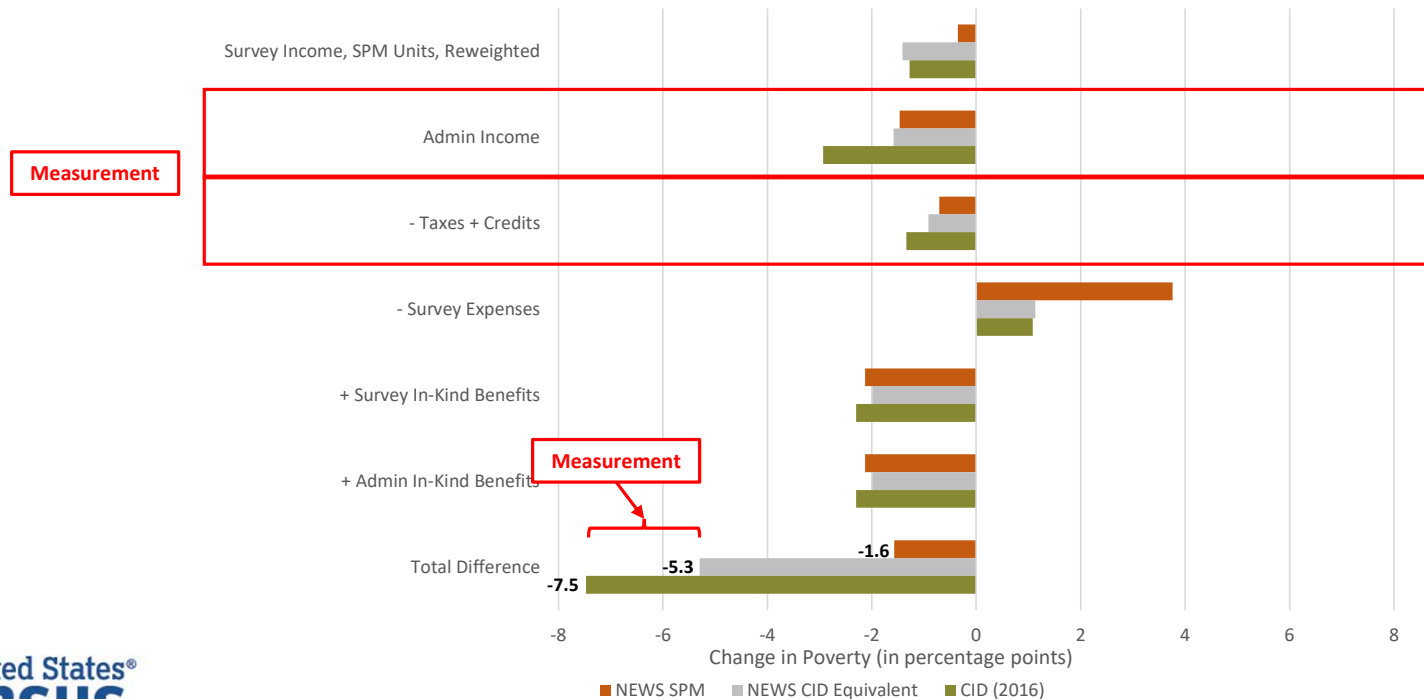
Conceptual Differences

- Thresholds (Survey Income, SPM Units, Reweighted): **1 pp**
 - SPM – thresholds vary by geography, housing tenure (renters and owners with w/out mortgage), and are based on consumption
 - CID – thresholds use OPM poverty line for 2 parent, 2 child households and use SPM equivalence scale to adjust for other units
- Survey Expenses: **2.3 pp**
 - CID – does not deduct child care expenses and medical out-of-pocket expenditures from resources, which the SPM does
- Impact – $(\text{NEWS CID} - \text{NEWS SPM}) / (\text{CID} - \text{Survey OPM})$ across all steps
 - 3.8 pp
 - 50 percent – share of difference between OPM and CID estimated CID poverty

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Comparing NEWS to CID

Measurement Differences

- Admin Income: **1.3 pp**
 - NEWS – estimates a model of measurement error for earnings and draws earnings from a predicted distribution conditional on observables for individuals where we estimate the administrative data is not accurate
 - CID – Takes the maximum of administrative and survey earnings reports in specific cases, which comprise 37 percent of all individuals classified as poor with the Survey OPM
 - Both – use survey earnings when administrative earnings = 0 and survey earnings > 0
- Taxes and Credits: **0.4 pp**
 - Using the *actual* tax filing information, there is too little EITC for tax units in the survey
 - NEWS – we are exploring how to address the shortcoming, which seems to come from too few weighted units at AGI levels that receive high EITC amounts (compared to SOI aggregates). Fix pending in future releases.
 - CID – estimate taxes for units that *did not file taxes*. The additional EITC (and child tax credits) partially address the EITC shortfall relative to SOI aggregates and also decreases poverty.
- Impact – $(CID - NEWS\ CID) / (CID - Survey\ OPM)$ across all steps
 - 2.2 pp
 - 29 percent – share of difference between OPM and CID estimated CID poverty $(NEWS\ CID - NEWS\ SPM) / (CID - Survey\ OPM)$