

Evaluating Alternative Poverty Measures: A View from an Interagency Technical Working Group

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Virtual presentation

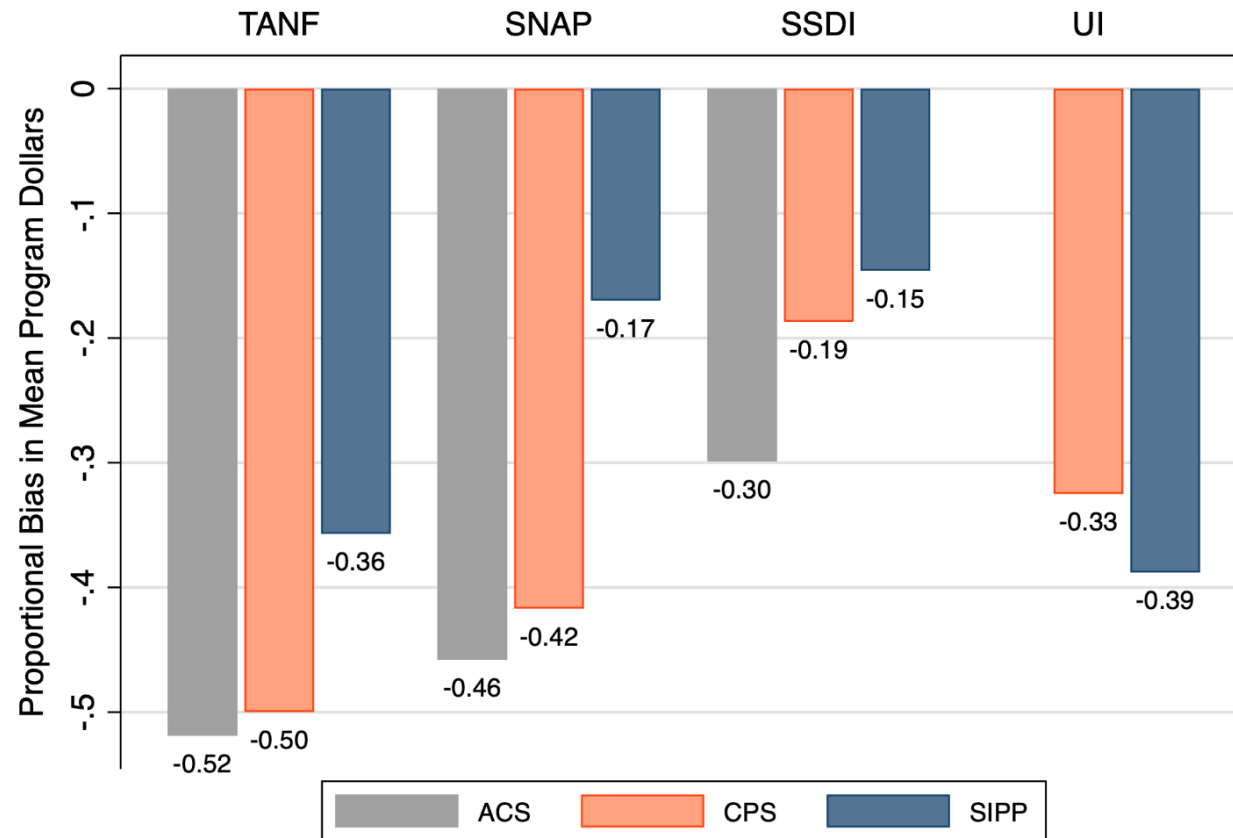


Outline

- Motivation for the Interagency Technical Working Group (ITWG)
- Establishment of the ITWG
- Summary of recommendations
- Specific recommendations
 - ▶ Process
 - ▶ Income poverty measure
 - ▶ Consumption poverty measure
 - ▶ Recommendations applying to both resource measures
- Implementation and future directions

Motivation #1: Household Surveys Understate Income

Proportional Bias in Mean Program Dollars, by Program and Survey, 2000–2012



Source: Meyer, Mok, and Sullivan (2015)

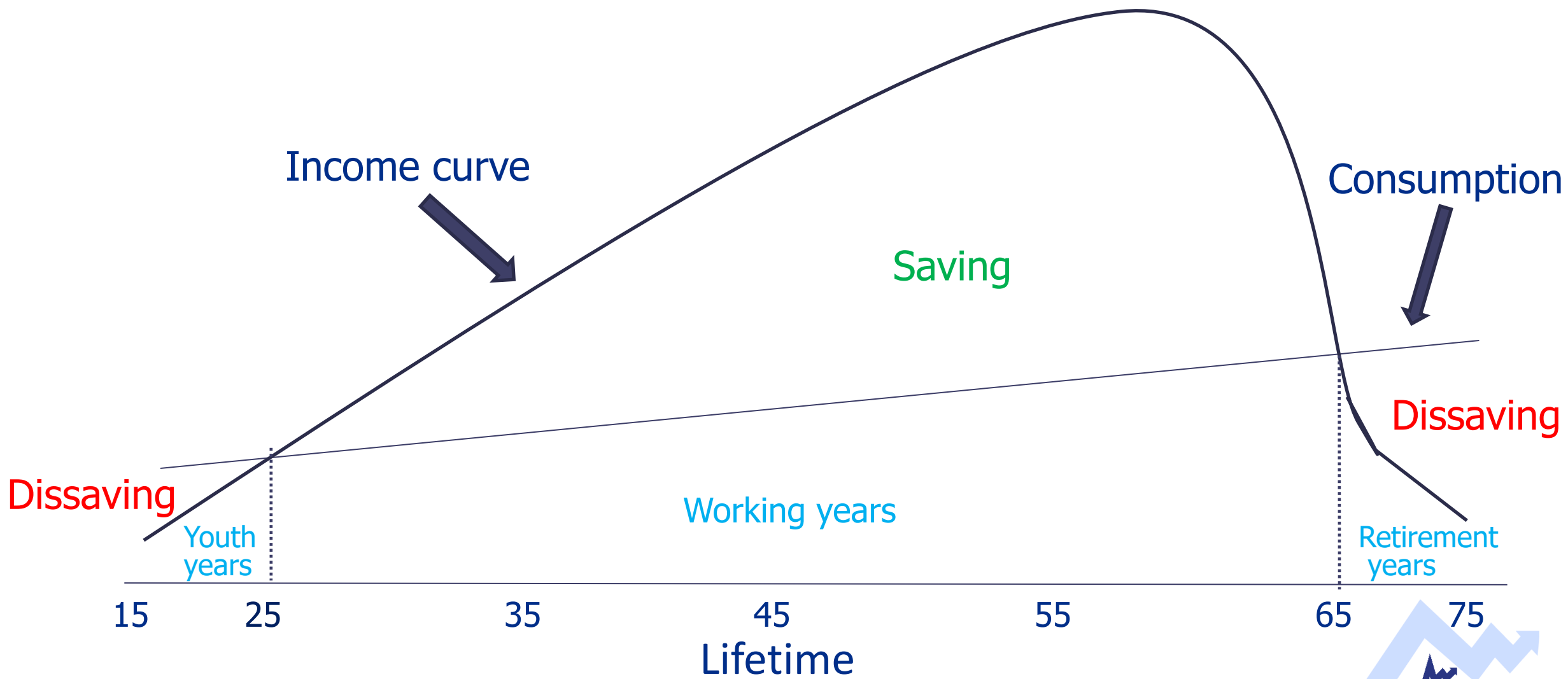
Linked administrative data
can correct for survey
underreporting.

Motivation #2: Advantages of Consumption

- Empirical: evidence suggests that consumption poverty provides useful information
 - ▶ Data quality
 - Less underreporting (based on comparisons to PCE) than for income
 - Groups such as the elderly and students may have little income, but are often well-off
 - ▶ Comparisons to other indicators of material deprivation
 - Consumption poverty measures may do a better job of identifying those who are materially deprived using other indicators (some of these measures are consumption-based like being a homeowner, owning a car; while others are not like being a college graduate)
- Theoretical: a better measure of ...
how one lives as opposed to how one could live

Life Cycle Theory of Consumption

suggests that individuals plan their consumption and savings behavior over the course of their lives



Establishment of the ITWG

- By Chief Statistician of the United States
- Chartered to consider alternative poverty measures that would supplement but not replace existing measures
- Members were subject matter experts from 11 federal agencies
- 46 meetings over 2 years (January 2019 to January 2021)
- Interim report released in February 2020 (almost 20,000 comments from the public received)
- Final consensus report, with 36 recommendations, released in January 2021 (see <https://www.bls.gov/evaluation/final-report-of-the-interagency-technical-working-group-on-evaluating-alternative-measures-of-poverty.pdf>)



Summary of Recommendations

- Unidimensional poverty measure
 - ▶ Resource measure
 - ▶ Thresholds
 - ▶ When resources below thresholds, a person is considered poor under a headcount measure
- Recommended resource measures
 - ▶ Extended income combining household survey and administrative data
 - ▶ Consumption using household survey data, augmented with administrative data, and imputed flow of services for housing and durables
- Report includes little on thresholds – discussion relegated to future groups to address

Recommendations on Process

■ Production

- ▶ U.S. Bureau of the Census (income) and Bureau of Labor Statistics (consumption) create/publish poverty measures as soon as possible
- ▶ Each year, publish poverty measures within 12 months of survey data collection

■ Development

- ▶ New National Academy of Sciences panel to resolve major undecided issues
- ▶ New Interagency Technical Working Group to address ongoing implementation issues

■ Research

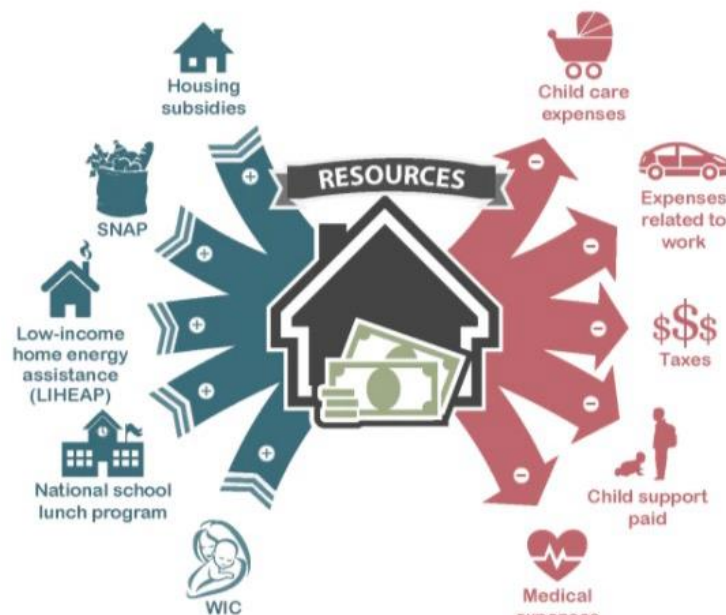
- ▶ Recommend research to inform specific aspects of alternative poverty measures

Income Measure Recommendations



Income – What to Include? How to Define?

- All monetary income (including child support and alimony)
- Non-cash income and in-kind transfers (public and private)
- Tax credits
- Subtract from income, expenditures “needed” for consumption



But what about other expenditures “needed”?

- education
- health care

Subtractions from Income

- Federal, state, and local income taxes and payroll taxes
- Child support and alimony payments
- Childcare expenditures needed to work
 - ▶ Cap childcare expenditures based on those necessary to work
 - ▶ Pursue research on capping method



Data Source for Income-Based Measures

- Primary data source for production of the income resource measure
 - ▶ Current Population Survey Annual Social and Economic Survey (CPS-ASEC)
- Geographic area for estimates
 - ▶ State level
 - ▶ With disaggregation by urban and rural areas

Correcting for Missing/Misreported Data in Income

- Combining administrative data with survey data is the preferred approach for adjusting survey data to correct for misreporting and missing data
- Use regression-based modelling when administrative data linkage not possible or advisable
- Important considerations
 - ▶ Availability and permission to use administrative records in production
 - ▶ Administrative record quality
 - ▶ Trade-off between timeliness and accuracy

❖ *NOTE: applies both to income and consumption*

National Experimental Well-being Statistics (NEWS)

Ongoing research project within the U.S. Census Bureau that can be used to support the ITWG's recommendations on an extended measure of income...

- Focus: to rethink how one can produce income and resource statistics
- Moves beyond work characterizing measurement error or correcting specific sources, toward estimates that address as many measurement issues as possible with complete geographic coverage
- Status
 - ▶ Currently experimental
 - ▶ Long term: move to regular production
- Transparent and replicable
 - ▶ Fully document methodological decisions
 - ▶ Make linked microdata and code available to approved external researchers



Consumption Measure Recommendations



Consumption—What to Include? How to Define?

■ Expenditures



■ In-kind benefits



■ Flow of services



- ❖ Exclude expenditures
 - Allocations to pensions and life insurance are assumed to enhance future consumption
 - Owned shelter and vehicle purchases
- ❖ To include or exclude?
 - Health expenses
 - Education expenditures

Consumption: Service Flows from Non-financial Assets

- Why account for service flows?
 - ▶ Because we do not “consume” the house or car, instead we “consume” the flows of services (market or consumption value) from these
- Primarily two main valuation approaches used internationally
 - ▶ User costs
 - ▶ Rental equivalence
- Both used to measure changes over time in the value for the flow of services consumed by owner-occupants or vehicle owners
- In theory, both approaches should produce equivalent values, but rarely do empirically
- Literature
 - ▶ Focuses on owner-occupied housing
 - ▶ Implication that the same or similar methods can be used for durables or non-financial assets like vehicles (see ILO 2003, paragraph 292)



Consumption: Service Flows Defined in Terms of User Costs

- ***Costs of producing (using) the service:*** “...**user cost approach** attempts to measure the *changes in the cost* to owner-occupiers of using the dwelling; user costs account for both recurring costs and the opportunity cost of having money tied up in the dwelling rather than being used for some other purpose” (ILO 2004, p. 179).
- Components of user costs
 - ▶ Recurring costs like mortgage interest payments, property taxes, property insurance, and routine maintenance and repairs (including those for major appliances included in the shelter unit when covered by the rental contract)
 - ▶ Opportunity costs of investing in this shelter property as opposed to another asset or for another purpose
 - ▶ Depreciation rate
 - ▶ Expected appreciation rate
 - ▶ Income tax rate (advantages of owning: lowers user costs)

Consumption: Service Flows Defined in Terms of Rental Equivalence

- ***Selling price of the service:*** “...rental equivalence approach attempts to measure the *change in the price* of the housing service consumed by owner-occupants by estimating the market value of those services” (ILO 2004, p. 180)
- Market rent that landlord would charge for a unit (selling price of the service provided by the housing structure)
- The rent an owner occupant would pay to rent her own home
- In the U.S., service flows from major appliances (e.g., refrigerators, stoves) are included in comparable rental units, unlike in many European countries, and thus are implicitly included in rental equivalence
- Most often used valuation approaches
 - ▶ Imputed rents (e.g., from regression models) + “premium”
 - ▶ Reported rental equivalence (asked in CE Interview)

Data Source for Consumption-based Measures

- Primary data source for production of the consumption resource measures
 - ▶ Consumer Expenditure Survey Interview Component (CE)

- Geographic area for estimates
 - ▶ Preference: estimates produced at the state level
 - ▶ Interim: estimates produced at Census Division level

- *Current status:* No plans to expand the CE sample to cover all States in U.S.

Correcting for Missing/Misreported Data in Expenditures

- As with income, continue to research, and possibly implement, ways to reduce survey burden and improve the quality of resulting data through increased access and use of administrative data

Ongoing research within the BLS

- Developing streamlined Interview questionnaire (some in progress, others first phase April 2023)
 - ▶ Reduce the level of detail started April 2021 (e.g., for apparel, can no longer distinguish between men and women, or boys and girls, or infants; only by age group: 18 years and older; 0-17 years of age)
 - ▶ Facilitate the use of records
 - ▶ Some changes to the order and section organization
- Developing Consumer Assisted Recorded Interview (CARI) for Interview to be implement in July 2022; goal to improve data collection and question wording

Funding for a Consumption Measure

- Funding support to BLS to research the nature and construction of a potential consumption-based poverty measure and improve the CE program in support of improved poverty measurement
- No funding appropriation from Congress
- However, continues to be much interest within BLS supporting this work
- *Related:* BLS research initiative to develop a comprehensive consumption measure of economic well-being

Current BLS Initiative to Produce a Comprehensive Consumption Measure

- Researchers and staff with support from outside researchers
- CE Interview and Diary, plus American Time Use Survey
- Consumption defined
 - ▶ Start with OECD 2013 Framework, augmented with guidelines from ILO (2003) and UNECE (2017)
 - ▶ *Consumption expenditure* - value of consumption goods and services used or paid for by a household to directly meet its needs
 - Purchase of select goods and services in the market
 - In-kind transfers from employers
 - Household's own production of goods and services consumed (e.g., from owner-occupied housing, owned vehicles, durables)
 - Transfers in-kind from other households (e.g., gifts) and from businesses
 - ▶ **GOAL: Actual final consumption** - sum of
 - Consumption expenditure
 - Public in-kind transfers

Source: OECD (2013), *OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth*, OECD Publishing, Paris, Chapter 5. Household Consumption, p.104.



Recommendations for Both Resource Measures



Service Flows from Owned Housing and Vehicles

Consumption

- Implicit rents
 - Reported rental equivalence
 - Imputed rents (e.g., from regression models) + “premium”
- User costs of capital
 - Current market value of home or vehicle
 - Nominal mortgage or loan rate
 - Depreciation, maintenance and repairs, insurance
 - Property tax rate
 - Income tax rate (will lower user costs)
 - Expected appreciation rate (will lower user costs)

Net Implicit Income

- Implicit rents or user costs
- Minus operating expenses
 - Mortgage or vehicle loan interest
 - Depreciation, maintenance and repairs, insurance
 - Property tax
 - For owned housing, adjust for tax advantage

Health Insurance

- Two sets of income resource measures and two sets of consumption resource measures should be produced
 - ▶ One with a value of health insurance
 - ▶ One without a value of health insurance
- Issues for implementation in poverty measurement
 - ▶ Value of health insurance should not depend on the disability or health status of individuals
 - ▶ Cap value of health insurance at some share of total resources
 - ▶ Health insurance should not comprise majority of resources
- Requires further research
 - ▶ Treatment of health/medical out-of- pocket expenditures not covered by insurance, e.g., co-pays, deductibles, prescription drugs, and over the counter items

Education

- Expenditures on education be excluded
 - ▶ Why? Because education generally considered an investment in human capital
- Recommendation regarding whether and how to treat education within resource measures
 - ▶ Continued research
 - ▶ Additional stakeholder and expert engagement

Recommendations for Thresholds, Poverty Statistics, and Future Work



Thresholds

■ Interim thresholds

- ▶ Seek additional expert input for interim thresholds
- ▶ Do not delay resource measure production
- ▶ When resource measures ready, apply interim thresholds immediately

■ Final thresholds require additional research

- ▶ Price indices for updating thresholds
- ▶ Equivalence scales that reflect differing needs of adults and children
- ▶ Possibility of geographic adjustments

Implementation and Future Research

- U.S. Census Bureau to continue research to link survey and administrative data, and adjust income based on spending not available for consumption
- Bureau of Labor Statistics in the process of producing an initial consumption well-being measure that could be used for a consumption poverty measure
- Working group recommended future research
 - ▶ Multi-dimensional poverty measures
 - ▶ Incorporating the homeless and other populations excluded from surveys
 - ▶ Timely income and poverty measurement

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