

Discussion of Final Report of the Interagency Technical Working Group (ITWG) on Evaluating Alternative Measures of Poverty:

Consumption as a Resource Measure

Thesia I. Garner

Bureau of Labor Statistics (BLS)

Division of Price and Index Number Research (DPINR)

FCSM 2021 Research and Policy Conference

November 4, 2021

(revised October 30, 2021)



Outline

- Why a consumption-based measure of resources?
- What to include? How to define?
- Recommendations and comments
 - ▶ Select challenging components (i.e., education, health, non-financial assets)
 - ▶ Data quality including administrative data
 - ▶ Data source
 - ▶ Funding
- Implementation and future direction

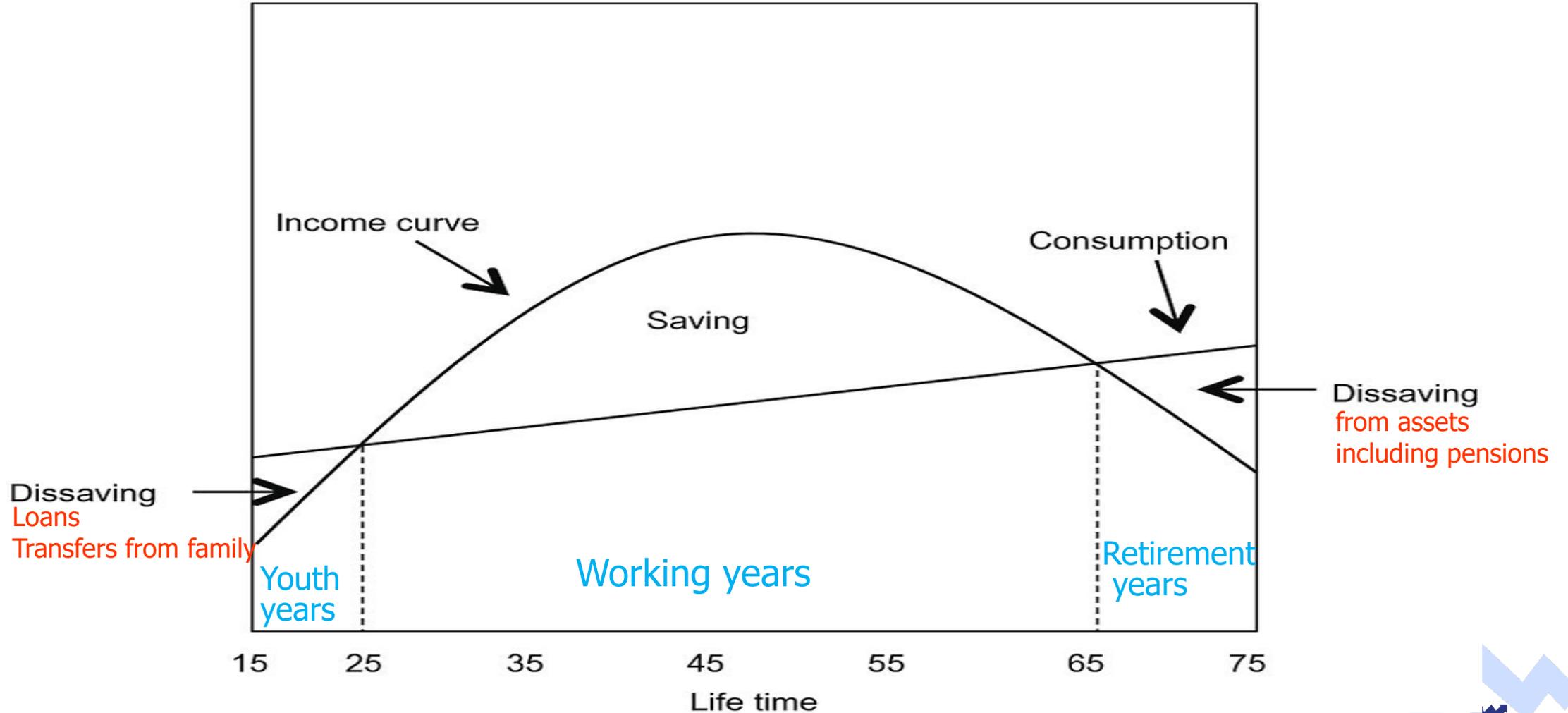
Why a Consumption-Based Measure of Resources?

- Focus on not how we could live, *but how we do live...*
- Consumption-based measure may more directly capture the resources available to a family if it records the consumption that was actually achieved
- Conceptually, such a measure reflects long-run “resources” and one’s ability to smooth consumption over life cycle
- Depends on
 - ▶ Current income; public and private transfers/in-kind benefits; assets (financial and non-financial); access to credit
 - ▶ Stage in one’s life-cycle, changes in family composition
 - ▶ Expectations/uncertainty about future income, employment, inflation, bequest motives, preferences
 - ▶ Time
- Examples of pros and cons
 - ▶ Good measure to identify who is poor based on material deprivation
 - ❖ Empirical studies suggest that people *may* report more accurately expenditures (a component of consumption) than income
 - ▶ May not be a good if interested in short-term impacts of temporary fluctuations income



Life Cycle Theory of Consumption

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



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 to measure change 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)

Rental Equivalence and Adjustments for Renter-like Expenditures

- Rental equivalence question in CE Interview

If someone were to rent this “dwelling” how much do you think it would rent for monthly, unfurnished and without utilities?

- Optional treatments for owner shelter-related expenses (those not implicitly included in rental equivalence)
 1. Exclude all
 2. Ratio adjust as is done for Consumer Price Index to make them “renter-like”, for example
 - Adjust expenditure for homeowners’ insurance premium by a factor of 0.41 to reflect the share that only covers “contents and personal items” (tenants’ insurance)
 - Adjust expenditures for homeowners’ landscape maintenance by a factor of 0.061 to reflect share not covered by rental equivalence (rental contracts that require renter to maintain the yard at their own expense)

Recommendations



Accounting for Health in Consumption

- Recommendations #5, 13, 14, 15, 16
- Recommendation 5. *The Working Group recommends that the **Bureau of Labor Statistics develop and publish two new sets of research measures of consumption-based resources***
 1. *Includes a value of health insurance (e.g., market value, willingness to pay, fungible value)*
 2. *Does not include a value of health insurance*
- Treatment of **non-premium medical out-of-pocket expenditures not covered by insurance**, e.g., co-pays, deductibles, prescription drugs, and over the counter items requires **further research**
- Current status
 - No plans in response to ITWG Report
 - Related: BLS research initiative to develop a consumption measure of economic well-being, and measure of consumption expenditures for distributional accounts (CE-PCE project)



Recommendations #17, 19: Education

- *17. The Working Group recommends that expenditures on **education be excluded** from the recommended extended income-based and consumption-based resource measures because education is generally considered an investment in human capital.*
 - *19. The Working Group recommends **continued research and additional stakeholder and expert engagement** on whether and how to treat education within resource measures.*
- Current status
- No plans in response to ITWG Report

Recommendation # 27: Service Flows from Non-financial Assets

- *27. The Working Group recommends that the value of service flows from owner-occupied shelter and the value of the service flows from owned vehicles be included in the consumption resource measures.*



➤ Current status

- CE Interview already includes rental equivalence for owner-occupied housing
- Related: BLS research to produce flow of services cars and trucks

Recommendations #6, 23: Administrative Data

- *6. The Working Group recommends that the Census Bureau and the Bureau of Labor Statistics use, where available and when appropriate, **administrative data to supplement or replace the use of survey data for developing the recommended measures.***
- *23. The Working Group recommends that the **advisory structure** recommended previously should vet decisions about data sources, adjustment strategies, and other assumptions. This advisory structure should **consider and discuss continued research into availability and applicability of administrative data sources.***
- Current status
 - No plans in response to ITWG Report
 - Related: regular CE work to improve data quality
 - Proof of concept project: match of CE Interview and HUD administrative data for 2013 to 2017 for voucher recipients and consumer units living in public housing (under revision)



Recommendation #22 (in part): Model-Based Approaches

■ ... *Regression-based modeling (with or without individual-level or aggregate administrative data) can also improve the quality of estimates of income, expenditures, and program participation...*

➤ Current status

- No plans in response to ITWG Report
- Related: research for Supplemental Poverty Measure (SPM) thresholds could be adapted for production of consumption-based resource
 - Imputation of non-collected in-kind benefits in the CE for NSLP, WIC, home energy assistance using CPS ASEC in combination with CE, and NSLP and WIC benefits data from USDA
 - Imputation of “market” rents, using CE Interview data for renters paying “market” rents and renters living in public housing, rent-controlled units, receiving financial assistance with rent (e.g., voucher), rent as pay

Recommendation #24: Data Quality

■ *24. The Working Group recommends that the Census Bureau and the **Bureau of Labor Statistics 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 in surveys, including the ... CE.***

Current status

- No plans in response to ITWG Report
- Related: regular CE work to improve data quality
 - Developing streamlined Interview questionnaire (some on 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



Recommendation # 26: Data Source

➤ 26. *The Working Group recommends that the **Bureau of Labor Statistics** use the **CE Interview Survey** data to **research and develop a consumption-based resource measure.***

➤ Current status

- Response to ITWG Recommendation #26: planned presentation on consumption resource poverty during ASSA/AEA Annual Meetings 2022
- Related: BLS research initiative to develop a consumption measure of economic well-being

Recommendations # 28, 29: Geographic Area for Estimates

- *28. The Working Group recommends that the **CE Interview** serve as the **primary data source** for the production of the consumption resource measures, with **estimates produced at the state level**.*
- *29. The Working Group recommends that the **current CE Interview Survey** serve as the **interim data source** for the production of the consumption resource measures, with **estimates produced at the Census Division level**.*

➤ Current status

- No plans in response to ITWG Recommendations



Recommendation # 25: Funding

- *25. The Working Group recommends **funding support** of the work to develop the new recommended measures, including funding to support 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. A proposal requesting \$7.1 million was included in the fiscal year 2021 President's Budget.*

- \$7.1 million included in President's FY2021 Budget request to Congress for BLS
 - ▶ Conduct research on potential consumption-based poverty measure
 - ▶ Improvement in CE program in support of production-quality SPM thresholds

- Funds not included in the final FY2021 appropriation from Congress

- Current status
 - No additional plans in response to ITWG Report (request made in 2020 during ITWG meetings)
 - Continues to be much interest within BLS supporting this work
 - Related: BLS research initiative to develop a consumption measure of economic well-being



Recommendation #1: Engage with Stakeholders

- *The Working Group recommends that the Census Bureau and the Bureau of Labor Statistics engage with stakeholders and other experts throughout the development of the recommended measures...*

➤ Current status

- No plans in response to ITWG Report
- Related BLS research initiative to develop a consumption measure of economic well-being
 - Consumption Symposium, virtual in September 22-23, 2021 (see https://stats.bls.gov/cex/consump_symposium.htm)
 - Federal Statistics Advisory Committee (FESAC) meeting, December 10, 2021
 - Research presentation during ASSA/AEA 2022



Challenges for a Consumption Resource Measure: Implementation Issues and Future Direction

■ Implementation

▶ Consumer Expenditure Survey

- Interview, Diary, both
- Sample size, geography
- No to little data collected on in-kind transfers (public, private)
- Misreporting and under-estimates
- Redesign efforts could complicate production of a consistent measure of consumption over time

▶ Administrative data (e.g., public in-kind benefits)

- Availability, coverage, quality, timeliness
- Permission to use
- Alignment with survey concepts
- Disagreement between administrative and survey sources

▶ Imputation methods

■ Future Direction: integrate ITWG Recommendations with BLS initiative to produce a consumption measure of economic well-being



Contact

Thesia I. Garner, Ph.D.

Chief, Division of Price and Index Number Research
Office of Prices and Living Condition
Bureau of Labor Statistics
Washington, DC 20212

Garner.Thesia@BLS.gov

Office telephone: (202) 691 6576



Current CE Design



- 4 waves of personal interviews
- 3-month recall
- Large or recurring expenditures

- 2 one-week household paper* diaries
- Contemporaneous recall
- Small, frequently purchased items



**Consumer Expenditure Survey
Estimates**

CE Design

➤ CE Diary and Interview

➤ CE Interview

- ❖ Current design: 4 interviews, 3- month reference period
- ❖ No requirement that consumer units remain in 4 quarters (quarterly data assumed independent; no longitudinal weights)
- ❖ Consumer units (CUs) enter the sample on a rolling, not calendar-year, basis (data collection period, for example, **first interview in June 2020** reference period of March, April, and May 2020; and **last interview in February 2021** with reference period of December 2020 through February 2021)
- ❖ Relevant data for consumption measure: expenditures, rental equivalence of owned home, stock of owned vehicles, presence of health insurance (private-self, employer-provided, Medicaid, Medicare, other government), CU demographic variables



Gemini Redesign Plan

You are here!

2013:
Redesign Plan
approved

2015:
Proof of
Concept
Test
complete

2016:
Incentives
Test
complete

2020: Large
Scale
Feasibility
Online Diary
Test (LSF)
complete

2022:
Online Diary
Implementation

2023 onwards:
Phased
Implementation of
Streamlined
Questionnaire

BLS Production of a Consumption Measure

■ Who?

- ▶ Researchers and staff in Divisions of Price and Index Number Research (DPINR) and Consumer Expenditure Surveys (DCES) with assistance from OEUS and outside research community
- ▶ Support from Commissioner Beach (April 2021)

■ What?

- ▶ *OECD 2013 Framework definition*
- ▶ *Consumption expenditure* - value of consumption goods and services used or paid for by a household to directly meet its needs
 - purchase of goods and services in the market
 - consumption flows from owner-occupied housing, vehicles, and durables
 - in-kind transfers from employers
 - barter of goods and services
 - household's own production of goods and services consumed
 - transfers in-kind from other households (e.g., gifts) and from businesses
- ▶ **GOAL: Actual final consumption** - sum of
 - consumption expenditure
 - value of social transfers in kind provided by government and non-profit institutions



Activities at BLS: Consumption Symposium and Beyond

■ Consumption Symposium

▶ Topics

- Theory, concepts
- Non-traditional views/measures of consumption (e.g., time in consumption, within household sharing/allocation, as part of multidimensional measures)
- In-kind benefits and use of administrative data
- Durables
- Health insurance
- Home production

■ Next steps

- ▶ Internal/external document (past, present, future)
- ▶ Building on earlier CE framework (2000)
 - Follow international standards/guidelines
 - Moving from CE publication definition of expenditures to consumption measure of economic well-being
 - Developing measures for uses (e.g., CE to PCE distributional accounts, poverty measurement)