Conceptualizing and Measuring Poverty

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What is poverty? How do we measure it?

- Three general approaches
  - Absolute
  - Relative
  - Capabilities & Well-being

- Two primary measures in the US
  - Official
  - Supplemental Poverty Measure
    - WI Poverty Measure

- Measuring poverty dynamics
Measuring poverty

- Poverty is a social indicator, a status determined by a comparison of needs vs. resources for individuals in a family unit
  - Needs: How do you set the poverty line?
  - Resources: What do you include in the income/package?
    - Cash earnings
    - Pre-tax, post-tax
    - Cash benefits
    - Non-cash benefits
  - Over what family unit? (& how adjust for family size & economies of scale)
Definitions of Poverty (1)

• **Absolute poverty**
  – Income below some dollar amount
  – Used in the U.S.
    ~$25,000 for family of 4, in 2017
  – Advantages
    • Easy to measure
    • Easy to see trends
  – Disadvantages
    • What about changes in standard of living?
    • Cannot do international comparisons
Example 1: US poverty 1959-2014

- Under 18
- 18 to 64
- 65 & over
Definitions of Poverty (2)

• **Relative Poverty**
  - Income below some point on the distribution
  - Used in the rest of the developed world
    • Below half of median income is one approach (~$29,500 in US in 2017)

– **Advantages**
  • Reflects that individuals live in social contexts (inequality; social distance)
  • Allows for international comparison

– **Disadvantages**
  • Can never “end” poverty
  • No sense of need
Example 2: Child poverty in 29 countries*

* Child lives in family with income less than half of the median family income for the country  
  Source: UNICEF Office for Research on Children, 2013)
Definitions of Poverty (3)

• Poverty as low capabilities
  – Low levels of health, education, well-being
  – Experiences of hardship
  – Advantages
    • Better measure of people’s actual life circumstances
  – Disadvantages
    • Wellbeing and/or hardship is hard to measure
    • Expectations of capabilities change over time
      – e.g. health, education
Example 3a: Children of “low family affluence” *

*Scale of “low family affluence” based on # of family cars, family vacations, computers, and whether child has own bedroom.

Source: UNICEF Office for Research on Children, 2013)
Example 3b: Food insecurity

Trends in prevalence rates of food insecurity and very low food security in U.S. households, 1995-2016

Note: Prevalence rates for 1996 and 1997 were adjusted for the estimated effects of differences in data collection screening protocols used in those years.

Measuring poverty in the U.S.

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U.S. Official Poverty Measure

• Absolute approach (Approach #1)
  • **Compare income to a defined poverty threshold**
    ▪ Set in 1963
      ▪ Minimal nutritional requirements of a typical American family,
      ▪ Multiplied the costs of low food diet by 3
      ▪ Adjusted for family size, # of children, urban/rural
  • **Compare gross (pre-tax) income to thresholds**
  • **Family units are married parents and children**
  • **Only adjustment over time is to adjust poverty thresholds for inflation (CPI)**
Current U.S. Poverty Thresholds

• Thresholds for official measure are the 1963 thresholds, adjusted for 50+ years of inflation
  • 1963 - $3,130 (family of 4)
    • 36 million people
    • 20% of population
  • 2016 ~ $24,560 (family of 4)
    • 41 million people
    • 13% of population
• Do these amounts buy the same things in both periods?
Criticisms of U.S. Official Poverty Measure

- Thresholds not adjusted for changes in standard of living over time
  - not adjusted for geographic cost of living adjustments

- Resources do not include non-cash benefits (e.g., SNAP) or tax credits (e.g., EITC)
  - Do not account for costs of payroll & income taxes, medical expenses, child care & other work-related expenses

- Many other more detailed criticisms in 1995 NAS report

- 2010 adoption of federal Supplemental Poverty Measure for research purposes
## Two Poverty Measures

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<th><strong>Official Measure</strong></th>
<th><strong>Supplemental Poverty Measure</strong></th>
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<tr>
<td><strong>Threshold</strong></td>
<td>Official poverty line 3x cost of minimum food diet in 1963, adjusted for prices (CPI) only</td>
<td>• Basic expenses <em>(food, clothing, shelter, utilities x 1.2)</em> averaged over 5 yrs  &lt;br&gt;• Adjusted for geographic costs of living differences</td>
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<tr>
<td><strong>Resources</strong></td>
<td>Gross (before tax) cash income includes cash government benefits like social security, workers comp., and unemployment ins.</td>
<td>More Family Resources  &lt;br&gt;Cash income as in left panel:  &lt;br&gt;+/– Taxes &amp; tax credits  &lt;br&gt;• Non-cash benefits (inc. SNAP)  &lt;br&gt;• Work expenses (inc. childcare)  &lt;br&gt;• Out-of-pocket medical expenses  &lt;br&gt;• Child support paid to another family</td>
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<tr>
<td><strong>Family Unit</strong></td>
<td>Census “family” unit</td>
<td>Expanded Family Unit  &lt;br&gt;Census family + unmarried partner &amp; foster children;</td>
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*URBAN INSTITUTE*
SPM rates differ from official rates (poverty by state)

Based on 3 years of CPS data (2011-2013).
SPM shows lower child poverty rate & higher elderly poverty rate than the official measure

Source: Short (2015). Supplemental Poverty Measure: 214 (Census Bureau)
Child and Elderly Poverty in Wisconsin in 2013, Under Different Poverty Measures

Note: All poverty rates measured with WPM thresholds and include adjustments for work expenses. Source: IRP tabulations of 2013 ACS data. (IPUMS)

Source: IRP tabulations of American Community Survey Data, 2008-2016

Notes: *2016 significantly different from 2015 in official poverty & WPM


Note: SNAP = Supplemental Nutrition Assistance Program. To simplify the figure, effects averaged over two years are shown for 2008–2009 and 2010–2011; for year-to-year impacts in 2008–2011, see earlier reports.
Both Measures Valuable

- **Official measure**
  - Used as basis of eligibility for assistance, & for distributing funds across states
  - Easy to track poverty over time (CPS trend back to 1959)
  - Readily available at state, county, level (ACS data)
  - Can measure (crudely) on any survey that gathers income information & family size

- **Supplemental Poverty Measure** (for research purposes)
  - More comprehensive measure
  - Better at capturing effect of government benefits
  - Threshold is tied to current conditions (& geography)
  - Requires MUCH more data, hard to estimate unless using CPS, (hard to implement in other survey research)
Measuring Poverty Dynamics

• How does monthly poverty differ from annual poverty? How many people are poor once (for a two-month spell) over the course of a year?

• How many children are poor at least one year in their 18-year childhood? For 9 or more years?
Poverty rate under different time frames (SIPP data)

Source: Edwards, Dynamics of Economic Well-being: Poverty, 2009-2012 (Census Bureau, Jan 2014)
Notes: Using methods of official poverty rate
**Poverty rate under different time frames (SIPP data)**

Source: Edwards, Dynamics of Economic Well-being: Poverty, 2009-2012 (Census Bureau, Jan 2014)

Notes: Ever poor means at least two months of poverty in one year
Poverty rate under different time frames (SIPP data)

Source: Edwards, Dynamics of Economic Well-being: Poverty, 2009-2012 (Census Bureau, Jan 2014)

Notes: Ever poor means at least two months of poverty in a year.
39% of children poor at least once before age 18

Source: Ratcliffe, 2015, based on PSID data for children born between 1968 and 1989. Persistently poor- poor at least half the years from birth to 17. Ever-poor, not persistently are poor at least one year but less than half the years.
75% of black children ever poor

Source: Ratcliffe, 2015, based on PSID data for children born between 1968 and 1989. Persistently poor- poor at least half the years from birth to 17. Ever-poor, not persistently are poor at least one year but less than half the years.
Recap

- Different ways to measure poverty
  - Absolute
  - Relative
  - Capabilities & Well-being

- Two primary measures in the US
  - Official
  - Supplemental Poverty Measure
    - Results differ (by state, by age)

- People move in and out of poverty