Exercise: Hardship in Durham County

18% of residents in 2014 were food insecure; what does that mean?

16% of residents were poor; what does that mean?

44% of children lived in “low-income” households; what does that mean?

Age 78 was life expectancy at birth, vs. age 81 in Orange County; what does that mean?
Learning Objectives

Define deprivation, poverty, and economic hardship.

Introduce the federal poverty level (FPL).

Profile sources of poverty and hardship data.

Sketch alternate measures of deprivation.

Show practical applications of local data.

Part 1: Defining Deprivation
Defining Deprivation

Deprivation refers to a lack of resources adequate to satisfy basic needs.

Deprivation measures usually focus on a subset of the population.

Deprivation measures often are used to compare and contrast population groups.

Measures use absolute or relative standards.

Four Types of Measures

Direct: A measure based on the lack of a basic material good (*food insecurity*).

Indirect: A measure that uses one variable as a proxy for meeting basic needs (*poverty*).

Subjective: A measure related to the perceptions of a community (*polling*).

Relative: A measure tied to a living standard (% of median income).
Example: Direct and Indirect Measures

### Food Insecurity and Poverty in Durham County, 2013

<table>
<thead>
<tr>
<th></th>
<th>Estimated Total Population</th>
<th>Estimated Number of Persons</th>
<th>Estimated Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Insecurity</td>
<td>276,494</td>
<td>50,380</td>
<td>18.2%</td>
</tr>
<tr>
<td>Poverty</td>
<td>275,648</td>
<td>45,790</td>
<td>16.6%</td>
</tr>
</tbody>
</table>


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Part 2:
The Federal Poverty Level
The Federal Poverty Level (FPL)

The FPL, an indirect measure, is the main measure of deprivation used in the US.

Created in 1965, the FPL aims to measure in $ what a minimally ‘decent’ consumption level would be for different family types.

The FPL ideally was an income floor, under which a family could not survive, but in 1969, it became the official poverty measure.

The Two Parts of the Poverty Measure

Resource Count: Money income, or certain types of income received before certain tax payments.

Income Threshold: The level below which a unit is deemed “poor;” it is based on 1950s spending patterns, adjusted for family size and inflation.
Federal Poverty Thresholds in 2014

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Poverty Threshold</th>
<th>50% of Poverty Threshold</th>
<th>100% of Poverty Threshold</th>
<th>150% of Poverty Threshold</th>
<th>200% of Poverty Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>One person</td>
<td>$12,771</td>
<td>$6,386</td>
<td>$15,592</td>
<td>$18,107</td>
<td>$24,142</td>
</tr>
<tr>
<td>Two persons</td>
<td>$15,379</td>
<td>$7,690</td>
<td>$15,993</td>
<td>$23,069</td>
<td>$30,758</td>
</tr>
<tr>
<td>Three persons</td>
<td>$18,850</td>
<td>$9,425</td>
<td>$24,505</td>
<td>$28,275</td>
<td>$37,700</td>
</tr>
<tr>
<td>Four persons</td>
<td>$22,320</td>
<td>$11,150</td>
<td>$31,419</td>
<td>$35,190</td>
<td>$44,060</td>
</tr>
<tr>
<td>Five persons</td>
<td>$26,695</td>
<td>$14,348</td>
<td>$37,304</td>
<td>$43,043</td>
<td>$57,390</td>
</tr>
<tr>
<td>Six persons</td>
<td>$32,473</td>
<td>$16,237</td>
<td>$42,213</td>
<td>$46,710</td>
<td>$64,946</td>
</tr>
<tr>
<td>Seven persons</td>
<td>$36,927</td>
<td>$18,464</td>
<td>$48,005</td>
<td>$53,391</td>
<td>$73,854</td>
</tr>
<tr>
<td>Eight persons</td>
<td>$40,968</td>
<td>$20,484</td>
<td>$53,235</td>
<td>$61,452</td>
<td>$81,936</td>
</tr>
<tr>
<td>Nine or more persons</td>
<td>$49,021</td>
<td>$24,511</td>
<td>$63,727</td>
<td>$75,532</td>
<td>$98,042</td>
</tr>
</tbody>
</table>


Example: Poverty Rates in the Triangle

<table>
<thead>
<tr>
<th>Poverty Rates by Age Groups, Triangle Counties, 2014</th>
<th>Total Poverty Rate</th>
<th>Poverty Rate: Under Age 18</th>
<th>Poverty Rate: Ages 18-64</th>
<th>Poverty Rate: Ages 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chatham</td>
<td>16.7%</td>
<td>24.6%</td>
<td>16.4%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Durham</td>
<td>16.4%</td>
<td>20.7%</td>
<td>16.4%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Orange</td>
<td>14.1%</td>
<td>9.7%</td>
<td>17.2%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Wake</td>
<td>11.6%</td>
<td>14.6%</td>
<td>11.3%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Triangle</td>
<td>15.8%</td>
<td>13.0%</td>
<td>13.0%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Limitations of the FPL

The FPL no longer measures deprivation.
Most “food insecure” households above the FPL.

Technical limitations include the following:
It is a binary measure: poor or not poor.
It ignores geographical differences in living costs.
It overstates food spending.
It ignores modern expenses like child care.
It is a pre-tax measure, so it overstates income.
It omits the value of non-cash transfer payments.

Part 3:
Sources of Poverty Data
US Census Bureau

The Office of Management and Budget sets the poverty measure, & the Census Bureau prepares the annual estimates.

Most estimates come from sample surveys so are subject to various statistical errors.

Data often appear with a 1-year lag (e.g., 2015 in 2016).

Sources of Census Bureau Data

The Annual Social & Economic Supplement is the sources of national estimates.

Archived copies at https://v.gd/rm2114

The American Community Survey (ACS) is the source of state and local estimates.

American FactFinder at factfinder.census.gov

The Small Area Income & Poverty Estimates (SAIPE) provides school district estimates.

Annual estimates at https://v.gd/S8HwzB
The American Community Survey (ACS)

Begun in 2005, the ACS is a representative survey of social, economic, & housing traits.

Provide regular, detailed data for every geography.

The ACS is a continuous survey that collects data for a rolling period, not a specific date.

Values bounded by a margin of error at a given confidence level (90%).

Places with 65,000+ residents have 1-year estimates; all places have 5-year estimates.

Example: Poverty in Robeson County

<table>
<thead>
<tr>
<th>Poverty Rates for Selected Racial/Ethnic Groups, Robeson County, 2010-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All People</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
</tr>
<tr>
<td>African American</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Native American</td>
</tr>
</tbody>
</table>

Source: Census Bureau, American Community Survey, 5-Year Estimates, 2010-2014.
ACS Variables

A strength of the ACS is that it allows for the cross-tabulation of poverty data by various demographic and economic traits.

Variables include the following:

- Age, household type, race, ethnicity, sex, nativity, educational attainment, disability status, veteran status, language spoken, employment, earnings

Be mindful of small sample sizes and data consistency.

Part 4:

Alternate Measures
Supplemental Poverty Measure (SPM)

The SPM, a Census Bureau produce since 2011, addresses some of the flaws in the FPL.

The SPM modifies the money income definition to account for non-cash transfer payments; taxes; medical, work, and child care expense; and geographical differences.

The SPM generally yields a higher poverty rates for all persons, lower rates for children, and higher rates for older adults.

Example: FPL vs. SPM in United States

<table>
<thead>
<tr>
<th>Poverty Rates by Age Groups, United States, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Poverty Rate</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>FPL</td>
</tr>
<tr>
<td>SPM</td>
</tr>
</tbody>
</table>

Measures of Material Deprivation

**Food insecurity**: Measures of people who are hungry or at risk of hunger.

- USDA has state-level estimates; Feeding America county-level ones ([https://v.gd/dgEFam](https://v.gd/dgEFam)).

**Shelter insecurity**: Measures of people who lack housing or affordable/quality housing.

- ACS has cost/quality data; NC Coalition to End Homelessness local counts ([https://v.gd/1g27cG](https://v.gd/1g27cG)).

**Health insecurity**: Census measures of those who lack health insurance.

Capability Deprivation

**Capability deprivation** is the idea that income is only one determinant of a person’s quality of life and that deprivation involves more than a lack of income.

- **Well-being** involves expanding opportunities.

The **Measure of America** project measures capability deprivation in relation to the domains of health, education, and income.

- Data for US House districts at [https://v.gd/ihlxX0](https://v.gd/ihlxX0)
Part 5: Practical Applications

Economic Hardship in Catawba County

Q. How many Catawba County residents experienced economic hardship in 2013?

Steps. 1) Define terms; 2) identify data sources; 3) access data; 4) tabulate results.

Answer. Based on steps, multiple answers:

- Poverty rate (<1x FPL): 16.5%, 25,195 people
- Food insecurity rate: 14.2%, 23,930 people
- Working poor (<2x FPL): 41.2%, 62,905 people
- Housing burden rate (renters): 44.9%, 8,642 units
Recap

There are many ways of measuring deprivation.

The main measure used in the US is the federal poverty level, which is an indirect measure that tracks money income based on sample surveys.

At the local level, the American Community Survey is the best source of poverty data.

Alternate measures can provide more detailed data on economic hardships and deprivation.

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