Economic Disadvantage: Usefulness for Identifying High Risk Populations
IDPH Office of Women’s Health and Family Services

What is Economic Disadvantage?

Economic disadvantage, also commonly called “concentrated disadvantage”, is a standardized measure for the economic strength of a community. While it is similar to measuring poverty, it encompasses more than just income level to determine a community’s economic standing. The components of concentrated disadvantage include poverty, use of public assistance (including cash assistance, social security, and food stamps), unemployment, female-headed households, and density of children. The literature has shown that these factors are highly associated with each other. Together, they approximate the level of economic disadvantage experienced by a community.

How is Economic Disadvantage Calculated?

Economic disadvantage is calculated at the county or census tract level based on five variables collected in the U.S. Census and American Community Survey (ACS):

• % of families under the poverty line
• % of persons living in households receiving public assistance (cash assistance, SSI, SNAP)
• % of individuals 16 and older in the labor force who are unemployed
• % of households headed by single females
• % of persons under 18 years of age

For this analysis, 2010 Census and 2008-2012 ACS data were used. The state average composite score was used as the standard for comparing level of disadvantage across communities. In doing this, one can identify the communities with the highest levels of disadvantage. The following pages show economic disadvantage at the county-level across Illinois, as well as economic disadvantage at the census tract level within counties that were identified as high disadvantage counties.

Why is Economic Disadvantage Important for Health?

Within a community, concentrated disadvantage can impact health through indicate reduced access to health care, social services, resources, skills, work, education, technology, nutrition, and safety. Economic disadvantage has also been shown in the literature to be associated with many health outcomes across the lifespan. In Illinois, we assessed the relationship of economic disadvantage with several birth outcomes and markers of service use or risk level. These outcomes and risk markers for poor birth outcomes are shown in tables 1 and 2.

Because economic disadvantage is such a strong marker for health outcomes, it may be a useful indicator for identifying target communities for public health interventions. Economic disadvantage data is available at more specific geographic areas than what is available for many health outcomes, so it can be particularly useful for determining how to allocate resources and programs within a county or within a city.
Economic Disadvantage in Illinois
By County, 2008-2012

Top 10 Disadvantaged Counties
A: Winnebago County
B: Cook County
C: Kankakee County
D: Vermilion County
E: Macon County
F: Marion County
G: St. Clair County
H: Saline County
I: Alexander County
J: Pulaski County

Level of Disadvantage
(compared to state average)
- Green: Low Disadvantage
- Light Green: Low-Medium Disadvantage
- Orange: Medium-High Disadvantage
- Red: High Disadvantage

Top 10 disadvantaged counties are outlined in bold line

Data Sources:
Economic Disadvantage is a summary index created from five variables in the 2008-2012 American Community Survey (ACS) and 2010 Census files, as recommended by AMCHP Life Course Indicator Set.

Shapefiles: 2010 Census TigerLine Files

0 50 100 200 Miles
Table 1. Illinois Birth Outcomes by Level of County Economic Disadvantage
(data source: 2008-2010 certified Illinois birth certificate files, HFS Electronic Data Warehouse; 2009-2011 certified Illinois death certificate files, HFS Electronic Data Warehouse)

<table>
<thead>
<tr>
<th></th>
<th>Infant Mortality Rate per 1,000 births</th>
<th>Low Birth Weight births (&lt;2500g)</th>
<th>Very Low Birth Weight births (&lt;1500g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009-2011</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td>Quartile 1 - Low Disadvantage</td>
<td>5.0 per 1,000</td>
<td>7.0 %</td>
<td>1.11 %</td>
</tr>
<tr>
<td>Quartile 2 - Low-Med Disadvantage</td>
<td>5.5 per 1,000</td>
<td>7.4 %</td>
<td>1.35 %</td>
</tr>
<tr>
<td>Quartile 3 - Med-High Disadvantage</td>
<td>5.7 per 1,000</td>
<td>7.6 %</td>
<td>1.38 %</td>
</tr>
<tr>
<td>Quartile 4 - High Disadvantage</td>
<td>6.9 per 1,000</td>
<td>8.8 %</td>
<td>1.60 %</td>
</tr>
<tr>
<td>Healthy People 2020 Objectives</td>
<td>6.0 per 1,000</td>
<td>7.8 %</td>
<td>1.40 %</td>
</tr>
</tbody>
</table>

Table 2. Risk Markers for Poor Birth Outcomes, by Level of County Economic Disadvantage
(data sources: 2010 certified Illinois birth certificate files, HFS Electronic Data Warehouse; 2009-2011 certified Illinois death certificate files, HFS Electronic Data Warehouse)

<table>
<thead>
<tr>
<th></th>
<th>Teen Birth Rate per 1000 women ages 15-19</th>
<th>Less Than Adequate Prenatal Care</th>
<th>Homicide Rate: per 100,000 persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2010</td>
<td>2009-2011</td>
</tr>
<tr>
<td>Quartile 1 - Low Disadvantage</td>
<td>19.0 per 1,000</td>
<td>17.2 %</td>
<td>1.9</td>
</tr>
<tr>
<td>Quartile 2 - Low-Med Disadvantage</td>
<td>22.5 per 1,000</td>
<td>15.2 %</td>
<td>2.3</td>
</tr>
<tr>
<td>Quartile 3 - Med-High Disadvantage</td>
<td>28.6 per 1,000</td>
<td>20.2 %</td>
<td>3.3</td>
</tr>
<tr>
<td>Quartile 4 - High Disadvantage</td>
<td>39.8 per 1,000</td>
<td>26.4 %</td>
<td>9.8</td>
</tr>
</tbody>
</table>
Economic Disadvantage 2008-2012
Macon County, By Census Tract

Level of Disadvantage
(compared to state average)
- Low Disadvantage
- Low-Medium Disadvantage
- Medium-High Disadvantage
- High Disadvantage

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Shapefiles: 2010 Census TigerLine Files

Economic Disadvantage 2008-2012
Saint Clair County, By Census Tract

Level of Disadvantage
(compared to state average)
- Low Disadvantage
- Low-Medium Disadvantage
- Medium-High Disadvantage
- High Disadvantage

East Saint Louis & other suburbs
Belleville

Data Sources:
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Shapefiles: 2010 Census TigerLine Files
Economic Disadvantage 2008-2012
Winnebago County, By Census Tract

Level of Disadvantage
(compared to state average)
- Low Disadvantage
- Low-Medium Disadvantage
- Medium-High Disadvantage
- High Disadvantage

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Shapefiles: 2010 Census TigerLine Files

Economic Disadvantage 2008-2012
Cook County, By Census Tract

Level of Disadvantage
(compared to state average)
- Low Disadvantage
- Low-Medium Disadvantage
- Medium-High Disadvantage
- High Disadvantage

Data Sources:
Economic Disadvantage is a summary index created from five variables in the 2008-2012 American Community Survey (ACS) and 2010 Census files, as recommended by AMCHP Life Course Indicator Set.
Shapefiles: 2010 Census TigerLine Files