Using the ACS to Calculate National and State-Level Federal Program Participation Ratios for Working-Age People with Disabilities

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• The contents of this presentation do not necessarily represent the policies of the U.S. Department of Education or any other federal agency (Edgar, 75.620 [b])
Motivation for the Study

• Recent studies have focused on the participation of working-age people with disabilities (PWD) in safety-net programs at the national level

• Less is known about state-level variation in program participation among PWD

• State-level statistics can help us assess:
  – How well each state is meeting the needs of working-age PWD
  – How changes in states’ policies and economic conditions affect participants and expenditures

• State-level statistics cited by the media do not account for variation in disability prevalence or sampling error
Objectives

• Produce state-level information on disability program participation
  – Use a statistic that is consistent across states

• Address the following challenges:
  – Underestimation of program participation in survey data
    • Meyer et al. (2009)
    • Wheaton (2008)
    • Stapleton et al. (2012)
  – Previous estimates based on relatively small sample sizes, resulting in large sampling variance
  – Most surveys exclude those living in group quarters, including many PWD
Data

• State-level information from published administrative reports
  – Social Security Administration (SSA)
    • Annual Statistical Report on Social Security Disability Insurance (SSDI) (December 2009)
    • Supplemental Security Income (SSI) Annual Statistical Report (December 2009)
  – Centers for Medicare & Medicaid Services (CMS)
    • Medicare Enrollment Reports (July 2010)
    • Medicaid Statistical Information System State Summary Datamart (MSIS SSD) (December 2009)
  – Rehabilitation Services Administration
    • Annual Review Report (fiscal year 2010)
  – Department of Veterans Affairs
    • Annual Benefits Report (fiscal year 2010)
    • Veteran population tables (September 2010)
• State-level estimates of the number of PWD from the ACS
  • 2008–2010 3-year estimates and margins of error (MOEs) from American FactFinder tool
  • Include institutionalized PWD when possible
Method and Limitations

- Participation ratio:
  \[
  \frac{\hat{X}}{\hat{Y}} = \frac{\text{number of participants according to administrative reports}}{\text{estimated number of PWD according to ACS disability sequence}}
  \]

- Standard errors (Census Bureau 2010):
  - \(SE(\hat{X}) = 0\)
  - \(SE(\hat{Y}) = \text{MOE}(\hat{Y})/1.645\)
  \[
  SE\left(\frac{\hat{X}}{\hat{Y}}\right) = \frac{1}{\hat{Y}} \sqrt{\frac{\hat{X}^2}{\hat{Y}^2} [SE(\hat{X})]^2 + \hat{X}^2 [SE(\hat{Y})]^2}
  \]

- The denominator (and therefore the ratios) can be biased upward or downward compared with participation rates
  - Includes many not eligible for program participation
    - Impairment not sufficiently severe
    - Insufficient work history
    - Undocumented immigrants
  - Omits many who participate or are eligible
    - ACS six-question disability sequence captures 66 percent of those receiving SSDI and/or SSI benefits (Burkhauser et al. 2014)
State Variation in the Percentage of PWD (1)

Note: The error bars represent 95 percent confidence intervals.
State Variation in the Percentage of PWD (1)

Note: The error bars represent 95 percent confidence intervals.
State Variation in the Percentage of PWD (2)

Note: The error bars represent 95 percent confidence intervals.
## Published Program Statistics

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Working-Age (18–64) Participants</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Published Program Reports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSDI</td>
<td>8,317,351</td>
<td>December 2009</td>
</tr>
<tr>
<td>SSI</td>
<td>4,450,840</td>
<td>December 2009</td>
</tr>
<tr>
<td>SSDI or SSI</td>
<td>11,455,339</td>
<td>December 2009</td>
</tr>
<tr>
<td>Medicare</td>
<td>7,007,981</td>
<td>July 2010</td>
</tr>
<tr>
<td>Vocational rehab (VR) applicants</td>
<td>604,095</td>
<td>FY 2010</td>
</tr>
<tr>
<td>Veterans' compensation</td>
<td>2,033,435</td>
<td>FY 2010</td>
</tr>
<tr>
<td>Veterans' pension</td>
<td>121,100</td>
<td>FY 2010</td>
</tr>
<tr>
<td><strong>MSIS Datamart</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>7,050,416</td>
<td>December 2009</td>
</tr>
<tr>
<td>Medicaid and Medicare</td>
<td>3,267,968</td>
<td>December 2009</td>
</tr>
</tbody>
</table>
State Program Participation Ratios: SSA (1)

Participants per 100 PWD

Note: The error bars represent 95 percent confidence intervals.
State Program Participation Ratios: SSA (2)

The error bars represent 95 percent confidence intervals.

Note: The error bars represent 95 percent confidence intervals.
State Program Participation Ratios: CMS (1)

Note: The error bars represent 95 percent confidence intervals.
State Program Participation Ratios: CMS (2)

Note: The error bars represent 95 percent confidence intervals.
Cross-State Relationship: SSI and Medicaid

![Graph showing the relationship between SSI and Medicaid participation ratios across different states. The graph includes points for DC, MA, ME, and NV. The x-axis represents the SSI Participation Ratio, and the y-axis represents the Medicaid Participation Ratio. There is a strong positive correlation between the two participation ratios.](image-url)
SSDI/SSI Versus Medicare/Medicaid

Participants per 100 PWD

<table>
<thead>
<tr>
<th></th>
<th>SSDI or SSI</th>
<th>Medicare or Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td>DC</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>MA</td>
<td>42</td>
<td>29</td>
</tr>
<tr>
<td>ME</td>
<td>43</td>
<td>16</td>
</tr>
<tr>
<td>CA</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>NV</td>
<td>33</td>
<td>10</td>
</tr>
</tbody>
</table>

Legend:
- Blue bar: SSDI or SSI
- Red bar: Medicare or Medicaid
Summary

• Combining administrative information and ACS data provides useful state-level statistics on program participation

• Cross-state variation in SSDI/SSI participation ratios for working-age PWD is remarkably large
  – The two highest estimates (Massachusetts and New York) are more than twice as large as the lowest estimate (Alaska)
  – There is considerable variation across states in the distribution of participants between SSDI and/or SSI

• Cross-state variation in participation ratios is greater for Medicare/Medicaid than for SSDI/SSI
  – Reflects the extent to which Medicaid covers PWD who are neither SSI nor SSDI participants
  – Particularly in DC, MA, and ME, many SSDI-only beneficiaries are eligible for both Medicare and Medicaid services

• Estimated participation ratios may be biased downward or upward compared with actual participation rates
  – This is not necessarily a problem for cross-state analysis
Policy Questions

- Are participation ratios low in certain states because many people are not receiving benefits for which they are medically and financially eligible?
  - Or are many of those who are medically eligible not financially eligible:
    - Because they work and their earnings are too high?
    - Because they have not worked enough in the past to qualify for SSDI and have other income/assets that make them ineligible for SSI?
  - Is there a large pool of medically eligible nonparticipants who would likely participate if their financial circumstances deteriorate?

- Are there significant numbers of SSDI-only beneficiaries (1) living in states with relatively low Medicaid coverage for this group and (2) unable to obtain personal services not covered by Medicare?
  - Are they experiencing significant hardship because of out-of-pocket expenditures?
  - To what extent does this variation reflect variation in the availability of Medicaid Buy-In for SSDI-only beneficiaries who work?
For More Information

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