Nonmarket Work Among Working-Age Disability Beneficiaries: Evidence From the American Time Use Survey

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Introduction

• 8 M+ disabled workers received SSDI in 2012

• A lack of labor market participation does not preclude other labor inputs in the form of nonmarket work

• Time diary data are often used to estimate the economic value of nonmarket work (National Research Council 2005)
Disability, Participation, and Time Use

• Many beneficiaries indicate a desire to work or to develop new skills

• Adults with work/functional limitations report substantial nonmarket time (Anand & Ben-Shalom 2014)
  – Household labor: 80-144 minutes/day
  – Child care: 15-38 minutes/day
  – Volunteering: 7-11 minutes/day
Study Goals and Data

1. Estimate beneficiaries’ daily nonmarket time

2. Calculate replacement wages if nonmarket activities were compensated in the market

3. Compare the contribution of nonmarket labor inputs to GDP and aggregate SSDI payments
Study Goals and Data

1. Estimate beneficiaries’ daily nonmarket time

2. Calculate replacement wages if nonmarket activities were compensated in the market
   – Occupation: hours-weighted means from CPS Outgoing Rotation Groups; O*NET Job Zones for skill level

3. Compare the contribution of nonmarket labor inputs to GDP and aggregate SSDI payments
   – National: World Bank, Social Security Administration
Method

- **Sample**: 1,028 adults aged 18-64 reporting SSDI receipt for their own disability

- **Nonmarket time use categories**: housework, care work, consumer purchases, obtaining services, volunteering *(Frazis and Stewart 2011)*

- **Replacement wage calculations**: generalist, specialist, quality-adjusted specialist
• Beneficiaries spend the most time in household activities—specifically, housework and food and drink preparation
• Over 1.5 hours is spent in care work, per day
• Total nonmarket time adds to 4 hours and 20 minutes per day
Replacement Wage Crosswalk

<table>
<thead>
<tr>
<th>Type of nonmarket activity</th>
<th>Market Occupation</th>
<th>2012 wage</th>
<th>Necessary preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housework</td>
<td>Maids and housekeeping</td>
<td>$11.31</td>
<td>2. Some</td>
</tr>
<tr>
<td>Food and drink preparation</td>
<td>Food preparation workers</td>
<td>$10.17</td>
<td>1. Little</td>
</tr>
<tr>
<td>Appliance, tool, toy repair</td>
<td>Home appliance repairers</td>
<td>$17.90</td>
<td>3. Medium</td>
</tr>
<tr>
<td>Animals and pets</td>
<td>Nonfarm animal caretakers</td>
<td>$10.90</td>
<td>1. Little</td>
</tr>
</tbody>
</table>

**Generalist:**
Total annual nonmarket hours $\times$ hourly maid wage $\times$ # beneficiaries

**Specialist:**
Hours per activity $\times$ matched market occupation wage $\times$ # beneficiaries

**Adjusted specialist:**
Hours per activity $\times$ efficiency adjusted market occupation wage $\times$ # beneficiaries
Table 1: Nonmarket Labor Inputs as % of GDP and SSDI Expenditures

<table>
<thead>
<tr>
<th>Year</th>
<th>G</th>
<th>S</th>
<th>AS</th>
<th>G</th>
<th>S</th>
<th>AS</th>
<th>G</th>
<th>S</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$88.3</td>
<td>$93.4</td>
<td>$85.0</td>
<td>0.72</td>
<td>0.76</td>
<td>0.69</td>
<td>134.6</td>
<td>142.3</td>
<td>129.5</td>
</tr>
<tr>
<td>2006</td>
<td>$102.1</td>
<td>$107.0</td>
<td>$97.3</td>
<td>0.74</td>
<td>0.77</td>
<td>0.70</td>
<td>131.6</td>
<td>137.8</td>
<td>125.4</td>
</tr>
<tr>
<td>2008</td>
<td>$119.9</td>
<td>$124.8</td>
<td>$113.5</td>
<td>0.81</td>
<td>0.85</td>
<td>0.77</td>
<td>132.6</td>
<td>138.0</td>
<td>125.5</td>
</tr>
<tr>
<td>2010</td>
<td>$135.0</td>
<td>$142.8</td>
<td>$130.0</td>
<td>0.90</td>
<td>0.95</td>
<td>0.87</td>
<td>134.0</td>
<td>141.7</td>
<td>129.0</td>
</tr>
<tr>
<td>2012</td>
<td>$150.2</td>
<td>$153.6</td>
<td>$139.7</td>
<td>0.93</td>
<td>0.95</td>
<td>0.86</td>
<td>132.3</td>
<td>135.3</td>
<td>123.0</td>
</tr>
</tbody>
</table>

G = generalist wage, S = specialist wage, AS = adjusted specialist wage. Select years.

- In 2012, total labor inputs valued between $139.7 and $153.6 billion
- Overall, inputs valued between .69% (2003) and .98% (2011) of GDP
- Overall, inputs valued between 123% (2012) and 146% (2003) of SSDI payments
Summary

- Beneficiaries spend over 30 hours per week in nonmarket work
  - 13 hours per week in household activities
  - 11 hours per week in care work

- Inputs as % of GDP comparable in size to farms, educational services, nursing facilities

- Inputs surpass aggregate average SSDI payments across all years and methods
Implications

- Beneficiaries report substantial work—although not in the market
- Coordination of market opportunities?
Citations

• **Time Use as Nonmarket Production**

• **Disability and Time Use**

• **ATUS-occupation crosswalk**

• **Full paper**
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