Key Questions in US Disability Policy: Employment and Beyond

Manasi Deshpande

University of Chicago and NBER

Institute for Research on Poverty 2018 Forum

September 25, 2018
Substantial expansions of SSDI and SSI in recent decades
Key questions in US disability policy

1. What are the effects of disability programs on employment?

2. How do disability programs affect outcomes beyond employment?

3. How do application costs affect who applies for disability programs, and what role does economic opportunity play?
Key questions in US disability policy

1. What are the effects of disability programs on employment?

2. How do disability programs affect outcomes beyond employment?

3. How do application costs affect who applies for disability programs, and what role does economic opportunity play?
Theory on disability programs and employment

- Multiple theoretical channels through which disability programs can affect employment:

  1. Income effect (reduce work)
     - Recipients work less because of income transfer

  2. Incentive effect or moral hazard (reduce work)
     - Recipients work less because of program rules: e.g., benefits phase out if they work, or fear of removal if they work

  3. Long-term dynamic effects (reduce or increase work)
     - Recipients work less because of skill depreciation or LF detachment
     - Recipients work more because of better health or quality of life
Empirical evidence on disability programs and employment

- Channels matter for policies that try to encourage work
  - E.g., if income effect dominates, then more generous benefit phase-outs will not increase work

- Most studies estimate income and substitution effects together
  - Consensus: disability benefits reduce work moderately among adult disability recipients ($\approx 30\%$ reduction in LFP)
    
    Bound (1989); Chen and van der Klaauw (2008); von Wachter, Manchester, and Song (2011); Maestas, Mullen, and Strand (2013); French and Song (2013); Moore (2015)

- Much less evidence on long-term dynamic effects, or on effects on children and young adults
SSI children have poor long-term outcomes

- SSI provides cash benefits and health insurance to 1.3 million low-income children with disabilities
  - Poor outcomes: SSI adolescents with mental and behavioral conditions have 45% drop-out rate and 30% arrest rate (Hemmeter et al. 2008)

- What is the effect of removing children from SSI at age 18 on adult employment and income?
  - 40% of SSI children removed at age 18 based on judgement that they can work in adulthood
  - Deshpande (2016): children removed from SSI at age 18 earn on average just $4,000/year in labor market
Deshpande (2016): effect of SSI on young adult employment

Deshpande (2016), "Does Welfare Inhibit Success? The Long-Term Effects of Removing Low-Income Youth from the Disability Rolls"

- **Research question**
  - What is the effect of removing SSI children from SSI at age 18 on adult earnings and income?

- **Methodology**
  - Use birthdate discontinuity created by 1996 PRWORA reform in age 18 redetermination policy
  - Use SSA admin data to track child earnings and income into adulthood
Despande (2016): PRWORA change in age 18 policy

Proportion receiving age 18 review

Date of 18th birthday

Age 18 review

Est. 0.864*** (0.006)
Deshpande (2016): PRWORA change in age 18 policy

Unfavorable age 18 review

Est. 0.386*** (0.008)
Deshpande (2016): removed increase earnings slightly

Change $2,638* ($1,551)
Control $1,386
Deshpande (2016): removed earn $4,000/yr in labor market
Deshpande (2016): earn less than other disadvantaged youth

Annual earned income

Age

Annual earnings (thousands $)

Stay on SSI (control)

Removed from SSI (treatment)

Youth on AFDC

Denied SSI applicants

Annual earned income
**Deshpande (2016): summary**

- **Question:** what is the effect of removing low-income youth from SSI at age 18 on adult outcomes?

- **Removal:** lose $73,000 (PDV) in observed income over next 16 years, or 80% of original SSI loss.

### Annual effect of SSI removal on income

<table>
<thead>
<tr>
<th>SSI income</th>
<th>Earnings</th>
<th>Other transfer</th>
<th>Total observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>-8000</td>
<td></td>
<td>-4000</td>
<td>0</td>
</tr>
<tr>
<td>-4000</td>
<td>-2000</td>
<td>-4000</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>-4000</td>
<td>-2000</td>
<td>-2000</td>
</tr>
<tr>
<td>0</td>
<td>2000</td>
<td>2000</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>-2000</td>
<td>4000</td>
<td>-2000</td>
</tr>
<tr>
<td>0</td>
<td>-6000</td>
<td>4000</td>
<td>-6000</td>
</tr>
<tr>
<td>0</td>
<td>4000</td>
<td>4000</td>
<td>0</td>
</tr>
</tbody>
</table>
Key questions in US disability policy

1. What are the effects of disability programs on employment?

2. How do disability programs affect outcomes beyond employment?

3. How do application costs affect who applies for disability programs, and what role does economic opportunity play?
How do disability program costs compare to benefits?

- Costs include distortion of incentives
  - Disability benefits reduce work moderately among disability recipients ($\approx 30\%$ reduction in LFP)
    - Bound (1989); Chen and van der Klaauw (2008); von Wachter, Manchester, and Song (2011); Maestas, Mullen, and Strand (2013); French and Song (2013); Moore (2015)

- Benefits include improvements in well-being
  - Limited research on benefits to recipients, such as consumption, well-being, and health effects
  - Deshpande, Gross, and Su (2018): disability programs reduce financial distress of recipients substantially
DGS (2018): evidence on benefits of disability programs

Deshpande, Gross, and Su (2018), "Disability and Distress: The Effect of Disability Programs on Financial Distress"

- **Research question**
  - What is the effect of disability programs on financial distress?

- **Methodology**
  - Use age-based discontinuity in disability eligibility standards to estimate effects of SSDI and SSI programs on measures of financial distress
  - Link SSA admin records to financial records on bankruptcy, foreclosure, eviction, and home transactions
DGS (2018): use age-based eligibility rules in DDS process

Chen and van der Klaauw (2008) used the Survey of Income and Program Participation (SIPP) linked to SSA application and award data to study the effect of receiving disability benefits on labor supply. SSA evaluates disability-program applicants with a five-stage process, described in Figure 4. During the first two stages, examiners deny applicants if they have engaged in substantial gainful activity since onset of their disability (stage 1) or if their impairment is not severe (stage 2). During stage 3, applicants with listed medical impairments are allowed onto the program. During stage 4, applicants are denied if the examiner deems that they could still do the work that they had done before the disability onset.

Figure 4: Stages of the Disability Determination Process

- **Stage 1**: Substantial Gainful Activity?
  - Yes → Initially Denied
  - No → Stage 2

- **Stage 2**: Severe Impairment?
  - Yes → Stage 3
  - No → Initially Denied

- **Stage 3**: Listed Medical Impairment?
  - Yes → Initially Allowed
  - No → Stage 4

- **Stage 4**: Capacity for Past Work?
  - Yes → Stage 5
  - No → Initially Denied

- **Stage 5**: Capacity for Any Work? (Medical-Vocational Grid)
  - Yes → Initially Allowed
  - No → Initially Denied

Notes: Figure presents the stages of the Social Security Administration's disability determination process. In stage 1, disability-program applicants who are earning at substantial gainful activity levels ($1,180 per month in 2018) are denied. In stage 2, applicants who are determined to have a non-severe impairment are denied. In stage 3, applicants whose diagnosis meets the medical listings are allowed. In stage 4, applicants who are determined to have capacity for past work are denied. In stage 5, applicants who are determined to have capacity for any work are denied, while those determined not to have capacity for any work are allowed. Finally, during stage 5, examiners evaluate whether the applicants who cannot do past work can adjust to another type of work. Examiners divide applicants into cells based on...
DGS (2018): more lenient standards just above 50 and 55
DGS (2018): combine age 50 and 55 cutoffs

Initial allowance

<table>
<thead>
<tr>
<th>Allowance rate</th>
<th>Months from age 55 at initial decision date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2</td>
<td>-24</td>
</tr>
<tr>
<td>0.25</td>
<td>-18</td>
</tr>
<tr>
<td>0.3</td>
<td>-12</td>
</tr>
<tr>
<td>0.35</td>
<td>-6</td>
</tr>
<tr>
<td>0.4</td>
<td>0</td>
</tr>
<tr>
<td>0.45</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>
DGS (2018): risk of foreclosure or sale drops across cutoff

Foreclosure or net sale within 3 years after decision

Rate of foreclosure or sale: -24 - -18 - -12 - -6 - 0 - 6 - 12 - 18 - 24

Age relative to cutoff at initial decision date

Rate of foreclosure or sale vs. Age relative to cutoff at initial decision date

-24 - -18 - -12 - -6 - 0 - 6 - 12 - 18 - 24
DGS (2018): risk of bankruptcy drops across cutoff

Bankruptcy rate

Bankruptcy within 5 years after decision

Age relative to cutoff at initial decision date

Bankruptcy rate
DGS (2018): home purchases increase across cutoff

Home purchase within 1 year after decision

Home purchase rate

Age relative to cutoff at initial decision date

-24 -18 -12 -6 0 6 12 18 24

Home purchase rate

0.016 0.017 0.018 0.019 0.02 0.021

Age relative to cutoff at initial decision date

-24 -18 -12 -6 0 6 12 18 24
DGS (2018): summary

- **Question:** what is the effect of disability programs on financial distress of recipients?

- **Findings**
  - Within three years, disability allowance *reduces*
    - Likelihood of foreclosure or home sale by at least 40%
    - Likelihood of bankruptcy filing by at least 20%
    - Likelihood of foreclosure, home sale, or bankruptcy by at least 30%
  - Within one year, disability allowance *increases*
    - Home purchases by at least 20%
Key questions in US disability policy

1. What are the effects of disability programs on employment?

2. How do disability programs affect outcomes beyond employment?

3. How do application costs affect who applies for disability programs, and what role does economic opportunity play?
Who gets disability benefits?

Two critical margins for determining who gets disability benefits:

1. Disability determination process
   - Main screening mechanism: 42% of applicants allowed at initial level, 16% allowed on appeal

2. Application process
   - Costs of applying include time out of labor market, time and effort to complete application
   - **Deshpande and Li (2018):** higher application costs discourage applicants with moderately severe disabilities and low education levels
DL (2018): who is discouraged by higher application costs

Deshpande and Li (2018), "Who is Screened Out? Application Costs and the Targeting of Disability Programs"

- **Research question**
  - Who is discouraged from applying when the difficulty of applying for disability programs increases?

- **Methodology**
  - Since SSA field offices provide assistance with application, study effect of office closings on the number and type of disability applicants
  - Use detailed SSA admin data on applicant characteristics
DL (2018): SSA field office closings increase app costs
DL (2018): disability applications fall by 10%

Estimated Reduced Form Estimate: -0.100*** (0.029)

Quarter relative to closing Applications

Number of applicants (log)
DL (2018): number of recipients falls by 16%

Reduced form estimate -0.155*** (0.030)

Quarter relative to closing

Number of allowances (log)

Est. -0.155*** (0.030)
DL (2018): medium- and high-severity more discouraged

Number of applicants by severity (log)

-0.4 -0.3 -0.2 -0.1 0 0.1

Quarter relative to closing

Low -0.048 (0.030)
Med -0.338*** (0.050)
High -0.173*** (0.037)
V high -0.033 (0.027)
DL (2018): low-education applicants more discouraged

Number of applicants by education (log)

Quarter relative to closing

Reduced form estimate

- HS dropout: -0.142*** (0.028)
- HS graduate: -0.074*** (0.028)
- College grad: -0.050* (0.029)
Question: how does increasing application costs affect the targeting of disability programs?

Findings

- Closings reduce applications by 10% and allowances by 16%
- Effects persistent for at least two years after closing
- Disproportionately affect applicants with moderately severe conditions and low education levels
- Less effect on those with low-severity conditions, likely because they have few economic opportunities
Key questions in US disability policy

1. What are the effects of disability programs on employment?
   ▶ Moderate discouragement effect for adults, small for low-income youth
   ▶ More evidence needed on long-term dynamic effects

2. How do disability programs affect outcomes beyond employment?
   ▶ Evidence of large reductions in financial distress
   ▶ More evidence needed on consumption, health, and well-being

3. How do application costs affect who applies for disability programs, and what role does economic opportunity play?
   ▶ Higher application costs affect disadvantaged applicants
   ▶ More evidence needed on both determination and application margins