Impact Evaluation of an ESF-Funded ALMP for People with Disabilities

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Established in 2008 by four economists
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Expertise in:
- employment policy
- social policy
- education policy
- quality of business environment
- better regulation
Outline

- Employment of the disabled in the EU
- Paradigm shift and the SROP 1.1.1 programme
- Data
- Selection and impact evaluation methodology
- Results and discussion
- Conclusions
- Lessons and suggestions regarding evaluation
Employment of the disabled in Hungary

Source: Eurostat, 2002 LFS
Employment of the disabled in Hungary

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Source: Eurostat, 2002 LFS
Employment of the disabled in Hungary

Source: Eurostat 2002 LFS, BI calculations
People with disabilities in Hungary

Prevalence of disability, age 20-64

Source: OECD
Policy answer – a paradigm shift in LMPs

- Shift from pension-type benefits towards active labour market measures
  - Hungarian example: SROP 1.1.1 ALMP
    - target: people with disabilities
    - goal: reactivation/reemployment
    - 2008-2013
    - mentoring, counselling, training, wage subsidy
    - average package: either training or wage subsidy + mentoring and labour market counselling
Programme participants

• Recipients of a new rehabilitation subsidy
  o At least 50% loss in work capacity
  o Replaced disability pension, insurance based
  o Offered automatically with no sanctions if refused to participate
  o Coverage: 1/4 of the pool (~6,500 out of ~28,000)

• Recipients of an incapacity benefit
  o 40-50% loss in work capacity
  o Coverage: low (~4,000 out of ~150,000)
Evaluation results of ALMP’s are controversial (Kluve, 2010, Hudomiet and Kézdi, 2008)

- National Supported Work Programme, USA
  (Ham and LaLonde, 1996)
  - 90/65/40% reemployment
  - Long term impact: 10% points
- New Deal for Disabled People, UK
  (Orr et al., 2007)
  - Impact: 7-11% points
Data sources

• NLO programme participation records (treated)
  ○ entering between 01 March 2008 - 31 Dec 2010

• NLO unemployment register (control)
  ○ 100% sample of the unemployed between 01 Mar 2008 - 31 Dec 2010

• Tax registry data on start of work contract
  ○ for control and treated, until Oct 2012

→ linked together at the level of the individual
Variables in the NLO data

- age, sex, education
- disability
- previous spells of unemployment
- spells of benefit receipt
- programme participation (entry, exit)
- measures within complex programme
- date of entering job
Time frame

Entries into the programme

Crisis


Entries into employment/unemployment
Selection into the programme

Selection model

$$P(TREATED = 1|X) = \Phi(X'\beta)$$

Programme participants are more educated

- New rehabilitation subsidy recipients (2/3): self-selection
- Old rehabilitation subsidy recipients (1/3): creaming?
## Selection into the programme

<table>
<thead>
<tr>
<th></th>
<th>Treated group</th>
<th>Control group</th>
<th>Test</th>
<th>Differ?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of people</td>
<td>10,911</td>
<td>153,275</td>
<td>t-test</td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>0.45</td>
<td>0.47</td>
<td>t-test</td>
<td>yes</td>
</tr>
<tr>
<td>Age</td>
<td>43.95</td>
<td>46.22</td>
<td>t-test</td>
<td>yes</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.11</td>
<td>0.11</td>
<td>t-test</td>
<td>yes</td>
</tr>
<tr>
<td>Type of settlement</td>
<td>.</td>
<td>.</td>
<td>chi2-test</td>
<td>yes</td>
</tr>
<tr>
<td>Education</td>
<td>.</td>
<td>.</td>
<td>chi2-test</td>
<td>yes</td>
</tr>
</tbody>
</table>

Source: BI calculations from NLO data
Focus: the uneducated

- Primary education at most (8th grade or less)
- Recorded in the unemployment register
  - All controls were registered
- Not participated in other programs

\[ \downarrow \]

\[ \sim 1,700 \text{ participants} \]
### Focus: the uneducated

<table>
<thead>
<tr>
<th></th>
<th>Included participants</th>
<th>Excluded participants</th>
<th>Test</th>
<th>Differ?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of people</td>
<td>585</td>
<td>4,345</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>44.740</td>
<td>45.550</td>
<td>t-test</td>
<td>yes</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td>chi2-test</td>
<td>no</td>
</tr>
<tr>
<td>Settlement size</td>
<td></td>
<td></td>
<td>chi2-test</td>
<td>yes</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td>chi2-test</td>
<td>yes</td>
</tr>
<tr>
<td>Employment in/after</td>
<td>0.510</td>
<td>0.470</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td>Employment after</td>
<td>0.070</td>
<td>0.080</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td>Employment – medium term</td>
<td>0.530</td>
<td>0.490</td>
<td>t-test</td>
<td>yes</td>
</tr>
<tr>
<td>No reentering – short term</td>
<td>0.870</td>
<td>0.890</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td>No reentering – medium term</td>
<td>0.870</td>
<td>0.890</td>
<td>t-test</td>
<td>no</td>
</tr>
</tbody>
</table>

Source: BI calculations from NLO data
Impact evaluation: the method

- Impact of programme participation on the probability of reemployment / reentering unemployment (TOT)
- Compare to counterfactual
  - Selection of a control group by matching (one-on-one nearest neighbour matching combined with propensity score estimation)
  - Control group with same observed characteristics (age, sex, education, employment history, location)
### Treated vs. control group comparison - men

<table>
<thead>
<tr>
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<th>Treated group</th>
<th>Control group</th>
<th>Test</th>
<th>Differ?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>46.05</td>
<td>46.64</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td><strong>Unemployment rate</strong></td>
<td>0.11</td>
<td>0.11</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td><strong>Unemployment history</strong></td>
<td>104.23</td>
<td>225.62</td>
<td>t-tcst</td>
<td>no</td>
</tr>
<tr>
<td><strong>Employment history</strong></td>
<td>798.48</td>
<td>928.60</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td><strong>Long term unemployed</strong></td>
<td>0.49</td>
<td>0.49</td>
<td>t-test</td>
<td>no</td>
</tr>
<tr>
<td><strong>Type of settlement</strong></td>
<td>.</td>
<td>.</td>
<td>chi2-test</td>
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Source: BI calculations from NLO data
Impact of SROP1.1.1 w/w/o wage subsidy

Employment rate

- **Treated**
  - Men: 53%
  - Women: 55%

- **Control**
  - Men: 2%
  - Women: 2%

No wage subsidy

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Impact of SROP 1.1.1 – long term unemployed

Employment rate

- **Men**
  - Treated: 46%
  - Control: 2%
  - No wage subsidy: 22%

- **Women**
  - Treated: 46%
  - Control: 1%
  - No wage subsidy: 21%
Impact of SROP 1.1.1 – w/wout wage subsidy

Did not return to unemployment register

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Treated No wage subsidy</th>
<th>Treated</th>
<th>Control</th>
<th>Treated No wage subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>60%</td>
<td>81%</td>
<td>75%</td>
<td>71%</td>
<td>69%</td>
</tr>
<tr>
<td>Women</td>
<td>60%</td>
<td>75%</td>
<td>75%</td>
<td>71%</td>
<td>69%</td>
</tr>
</tbody>
</table>

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Impact of SROP 1.1.1 – different impacts from different outcome variables

Treated:
- Employment rate: 53%
- Did not return to unemployment: 81%

Control:
- Employment rate: 2%
- Did not return to unemployment: 60%
Impact of SROP 1.1.1 – different impacts from different outcome variables

<table>
<thead>
<tr>
<th>Treated</th>
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</thead>
<tbody>
<tr>
<td>Employment rate</td>
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</tr>
<tr>
<td>Did not return to unemployment</td>
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</tr>
<tr>
<td>53%</td>
<td>60%</td>
</tr>
<tr>
<td>81%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Impact of SROP 1.1.1 – different impacts from different outcome variables

Treated

- Employment rate: 53%
- Did not return to unemployment: 81%
  - B. work: 60%
  - Inactive: 2%

Control

- Employment rate: 60%
- Did not return to unemployment: 2%
  - Black work: 60%
  - Inactive: 2%
Impact of SROP 1.1.1 – different impacts from different outcome variables

Treated

- Employment rate: 53%
- Did not return to unemployment: 81%
  - B. work: 53%
  - Inactive: 28%

Control

- Employment rate: 60%
- Did not return to unemployment: 2%
  - Black work: 38%
  - Inactive: 22%
### Impact of SROP 1.1.1 – different impacts from different outcome variables

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<td>81%</td>
<td>2%</td>
</tr>
</tbody>
</table>

- **B. work**:
  - Treated: 60%
  - Control: 2%

- **Inactive**:
  - Treated: 36%
  - Control: 98%
Impact of SROP 1.1.1 – The lower and upper bounds of the estimated effects

**Employment rate**
- **Treated**: 53% (21% points increase)
- **Control**: 2% (51% points increase)

**Did not return to unemployment**
- **Treated**: 81%
- **Control**: 60%

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Robustness checks

- Several outcome variables
  - Both from employment and unemployment data
  - With/without public employment
- Resampling has no effect
  - Controls were chosen without replacement – may affect the impact
- Significance check in many specifications, robust SE clustered by zip code
Conclusions and discussion

• Much larger than international evidence - upward bias
• Possible selection bias in unobserved characteristics (e.g. motivation, ethnicity), OVB
• Includes deadweight loss and substitution effects
• Training and mentoring improves reemployment even without wage subsidy
• Significant impact for long term unemployed as well
Suggestions regarding evaluation of ALMPs

• NLO register suitable for ex-post impact evaluation if linked to tax/employment data
  ○ relatively cheap and available soon after

• Quality of analysis could be improved by:
  ○ recording all characteristics that determine eligibility
  ○ additional variables (e.g. level of disability, duration of employment spell)
  ○ qualitative surveys on selection process
  ○ recording costs at the level of the participant
  ○ randomisation
Thank you for your attention!
References


Political barriers to welfare reform. Budapest Institute Research Project

Evaluation of active labour market policy measures. Budapest Institute Research Project