Colloque sur l’évaluation des politiques publiques de l’emploi

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Differential effects of Swedish Active Labour Market Programmes for unemployed adults during the 1990s

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POLICY MOTIVATION

✧ The ‘Swedish Model’
   
   a wide range of programmes

   Evaluation of differential programme effects
   → identify best-performing (types of) programmes

✧ Institutional link between passive and active components of labour market policy
   participation in ALMPs renews eligibility to unemployment compensation

✧ Data
   large, comprehensive, representative, long period
EVALUATION PROBLEM

UNITS
adults entitled to unemployment benefits
who register as unemployed for their 1st time (in 1994)
→ 30,800 individuals, followed up to end Nov 1999

TREATMENTS
The 1st ‘treatment’ interrupting the 1st unempl. spell
– labour market training
– work experience
– job introduction
– relief work
– trainee replacement
– job subsidies
– longer job search in open unemployment
  • Everyone will eventually join a programme, provided unemployed long ‘enough’
  • Decisions taken over time in unemployment: participate now versus not participate for now

OUTCOMES
– employment probability over time
– compensated unemployment probability over time
<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AIM</th>
<th>ACCESS</th>
<th>TRAINING</th>
<th>TASK</th>
<th>COST&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPL. SERVICES</td>
<td>fill job openings quickly</td>
<td></td>
<td>job-seeker activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LABOUR MARKET TRAINING (AMU)</td>
<td>teach skills in demand</td>
<td>&gt;20</td>
<td>formal vocational</td>
<td></td>
<td>1,753</td>
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<tr>
<td>WORK PRACTICE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Work experience placement (ALU)</td>
<td>prevent benefit exhaustion; contact with working life</td>
<td>entitled</td>
<td>on-the-job practice</td>
<td>otherw. not performed</td>
<td>1,169</td>
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<tr>
<td>Workplace introduction (API)</td>
<td>contact with working life</td>
<td>≥20</td>
<td>practical vocational</td>
<td>otherw. not performed</td>
<td>879</td>
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<tr>
<td>TEMPORARY JOB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Relief work</td>
<td>specially created temporary jobs, also to avoid benefit exhaustion</td>
<td>&gt;25</td>
<td>on-the-job practice</td>
<td>otherw. not performed</td>
<td>1,157</td>
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<tr>
<td>Trainee replacement</td>
<td>unemployed replaces employee on study leave</td>
<td>≥20</td>
<td>on-the-job practice</td>
<td>regular</td>
<td>964</td>
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<tr>
<td>JOB SUBSIDIES</td>
<td>establish permanent employment relation</td>
<td>≥20</td>
<td>on-the-job practice</td>
<td>regular</td>
<td>751</td>
</tr>
<tr>
<td></td>
<td>≥6m unemp</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<sup>a</sup> USD per month per participant
## Selected individual descriptive statistics, by type of exit from first unemployment spell

<table>
<thead>
<tr>
<th></th>
<th>Treated Experience</th>
<th>Treatment Introduction</th>
<th>Relief</th>
<th>Replacement Subsidy</th>
<th>Exits from unemployment</th>
<th>non-particip. Employed</th>
<th>Regular Educated</th>
<th>Attrition</th>
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<tbody>
<tr>
<td>Age at entry (years)</td>
<td>38</td>
<td>41</td>
<td>37</td>
<td>40</td>
<td>38</td>
<td>39</td>
<td>38</td>
<td>35</td>
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<tr>
<td>Gender (female)</td>
<td>44</td>
<td>44</td>
<td>50</td>
<td>27</td>
<td>79</td>
<td>34</td>
<td>47</td>
<td>77</td>
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<tr>
<td>Foreign</td>
<td>6</td>
<td>7</td>
<td>21</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>7</td>
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<tr>
<td>Educat.: compulsory</td>
<td>30</td>
<td>34</td>
<td>35</td>
<td>34</td>
<td>18</td>
<td>33</td>
<td>26</td>
<td>25</td>
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<tr>
<td>vocat. upper sec.</td>
<td>53</td>
<td>41</td>
<td>35</td>
<td>50</td>
<td>49</td>
<td>47</td>
<td>45</td>
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<td>18</td>
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<td>9</td>
<td>27</td>
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<td>22</td>
<td>20</td>
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<tr>
<td>Educat. for job (yes)</td>
<td>65</td>
<td>65</td>
<td>59</td>
<td>67</td>
<td>77</td>
<td>68</td>
<td>73</td>
<td>68</td>
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<tr>
<td>Experience: some</td>
<td>10</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>17</td>
<td>13</td>
<td>12</td>
<td>15</td>
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<tr>
<td>good</td>
<td>84</td>
<td>80</td>
<td>64</td>
<td>83</td>
<td>72</td>
<td>83</td>
<td>83</td>
<td>76</td>
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<tr>
<td>KAS</td>
<td>6</td>
<td>6</td>
<td>14</td>
<td>15</td>
<td>5</td>
<td>13</td>
<td>8</td>
<td>6</td>
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<tr>
<td>Previous wage (SEK)</td>
<td>641</td>
<td>667</td>
<td>602</td>
<td>665</td>
<td>555</td>
<td>647</td>
<td>665</td>
<td>591</td>
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<tr>
<td>Previous hours: 40</td>
<td>84</td>
<td>83</td>
<td>80</td>
<td>86</td>
<td>68</td>
<td>88</td>
<td>81</td>
<td>75</td>
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<tr>
<td>Sector</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>admin., manag</td>
<td>20</td>
<td>17</td>
<td>18</td>
<td>6</td>
<td>9</td>
<td>16</td>
<td>13</td>
<td>18</td>
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<tr>
<td>sales</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>9</td>
<td>5</td>
<td>23</td>
<td>11</td>
<td>14</td>
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<tr>
<td>production</td>
<td>32</td>
<td>25</td>
<td>19</td>
<td>49</td>
<td>6</td>
<td>23</td>
<td>26</td>
<td>11</td>
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<td>services</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>14</td>
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<tr>
<td>Looks for part-time</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>7</td>
<td>12</td>
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<tr>
<td>Part-time unempl.</td>
<td>12</td>
<td>12</td>
<td>22</td>
<td>7</td>
<td>35</td>
<td>16</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Needs guidance</td>
<td>17</td>
<td>11</td>
<td>20</td>
<td>11</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Days unemployed</td>
<td>232</td>
<td>349</td>
<td>507</td>
<td>277</td>
<td>217</td>
<td>319</td>
<td>249</td>
<td>329</td>
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<tr>
<td>Days on programme</td>
<td>116</td>
<td>148</td>
<td>141</td>
<td>137</td>
<td>125</td>
<td>146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>1,387</td>
<td>2,983</td>
<td>425</td>
<td>654</td>
<td>483</td>
<td>426</td>
<td>15,972</td>
<td>2,680</td>
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</table>
adaptation of multiple treatment propensity score matching

$K+1$ mutually exclusive treatments

$Y_i^0 , Y_i^1 , ..., Y_i^K \rightarrow$ potential outcomes

$T_i \in \{0, 1, ..., K\} \rightarrow$ actual treatment assignment

Parameters of interest:

$$E(Y^K - Y^{k'} | T=k) = E(Y^K | T=k) - E(Y^{k'} | T=k)$$

for $k, k' \in \{0, 1, ..., K\}, \ k \neq k'$

CIA to identify $E(Y^{k'} | T=k)$:

$$T \perp (Y^K, Y^{k'}) | X=x, \ \forall \ x \in C^*, \ T \in \{k, k'\}$$

for $k, k' \in \{0, 1, ..., K\}, \ k > k'$

Common support
CIA IN OUR CASE

1\textsuperscript{ST} DECISION: WAIT OR JOIN A(NY) PROGRAMME

Control for all variables that – conditional on having spent a given amount of time in unemployment – influence both \(\Rightarrow\) decision to join a programme and \(\Rightarrow\) potential outcomes

2\textsuperscript{ND} DECISION: PROGRAMME CHOICE

(caseworker is the decision-maker – Harkman, 2000)

Given

\begin{itemize}
  \item individual characteristics
  \item overall judgement by caseworker
\end{itemize}

independent randomness in programme assignment
PLAUSIBILITY OF CIA

SELECTION INTO THE SWEDISH PROGRAMMES AND KEY AVAILABLE REGRESSORS

1st-time unemployed
Elapsed unempl. duration
Pre-unemployment wage
Part-time unemployment
Entitlement status
Running out of benefits

Employment history
Subjective likelihood of employment

Potential returns from participation

Potential costs of participation

Age
Gender
Part-time unemployment
Specific & general education
Job-specific experience
Occupation sought
Citizenship ...

Job-seeker

Selection into the programs

Caseworker

Subjective overall evaluation of job-seeker’s situation and character

Part-time employed
Looking for part-time job
Willing to move
Able to take job at once
In need of guidance
Difficult to place
Offered a program

Local conditions

County
Month

At the individual’s office and that time:
Local programme rate (‘program capacity’)
Local program mix
Outcome: employment probability over time

Labour Market Training

Work Practice - ALU

-7.4***

-5.6***

Work Practice - API

Relief Work

-1.4

-6.5***

Trainee Replacement

Job Subsidy

1.3

19.3***
JOINING VS WAITING

Outcome: benefit collection probability over time

Labour Market Training: 6.7***

Work Practice - ALU: 9.0***

Work Practice - API: 8.9***

Relief Work: 10.8***

Trainee Replacement: 2.9**

Job Subsidy: -3.0***
## Differential Effects

### Average Differential Effect of Joining Programme A Rather Than Programme B

For Participants in Programme A (averaged over 5 years since program start)

#### (A) Employment Probability

<table>
<thead>
<tr>
<th></th>
<th>Training</th>
<th>Work Practice</th>
<th>Relief</th>
<th>Replacement</th>
<th>Subsidies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>3.9 ***</td>
<td>-0.1</td>
<td>-11.5 ***</td>
<td>-21.4 ***</td>
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<tr>
<td>Work practice</td>
<td>-3.4 ***</td>
<td>-1.5</td>
<td>-13.6 ***</td>
<td>-26.1 ***</td>
<td></td>
</tr>
<tr>
<td>Relief</td>
<td>-4.3 ***</td>
<td>2.6</td>
<td>-9.0 **</td>
<td>-24.1 ***</td>
<td></td>
</tr>
<tr>
<td>Replacement</td>
<td>6.3 ***</td>
<td>5.8 **</td>
<td>-2.1</td>
<td>-19.3 ***</td>
<td></td>
</tr>
<tr>
<td>Subsidies</td>
<td>23.9 ***</td>
<td>26.1 ***</td>
<td>27.6 ***</td>
<td>16.1 ***</td>
<td></td>
</tr>
</tbody>
</table>

#### (B) Benefit Collection Probability

<table>
<thead>
<tr>
<th></th>
<th>Training</th>
<th>Work Practice</th>
<th>Relief</th>
<th>Replacement</th>
<th>Subsidies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>-1.3</td>
<td>1.0</td>
<td>9.0 ***</td>
<td>10.0 ***</td>
<td></td>
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<tr>
<td>Work practice</td>
<td>2.2 ***</td>
<td>0.7</td>
<td>8.6 ***</td>
<td>13.8 ***</td>
<td></td>
</tr>
<tr>
<td>Relief</td>
<td>4.2 ***</td>
<td>0.6</td>
<td>4.6 **</td>
<td>12.6 ***</td>
<td></td>
</tr>
<tr>
<td>Replacement</td>
<td>-5.8 ***</td>
<td>-2.6 **</td>
<td>-3.8 **</td>
<td>7.1 ***</td>
<td></td>
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<tr>
<td>Subsidies</td>
<td>-10.1 ***</td>
<td>-12.8 ***</td>
<td>-14.0 ***</td>
<td>-6.7 ***</td>
<td></td>
</tr>
</tbody>
</table>
TO CONCLUDE ...

① best performer by far: employment subsidies

② followed by trainee replacement

③ and by a long stretch, labour market training

④ relief work, API and ALU

• compared to longer job search:
  < employment rates & > benefit collection probability
  → use of such programs to re-qualify for benefits

• pair-wise comparison:
  not significantly different

COST SIDE

ranking of the programs in terms of effectiveness almost perfectly reversed as in terms of expensiveness
Policies Implications

Employment subsidies ≡ THE solution?

1. CIA?
2. legal challenges
3. indirect effects
   ✩ general equilibrium effects: substitution/displacement?
   ✩ dead-weight effects?

What about trainee replacement schemes then?

1. among the cheapest
2. performs satisfactorily
3. wider effects
   ✩ ‘double-dividend’ or deadweight loss?
   ✩ deadweight in terms of deputies
   ✩ displacement effects

Those programmes most similar to regular employment

❖ best for their participants (micro studies)
❖ largest displacem. & dead-weight effects (macro studies)

→ difficult trade off for labour market policy