The effects of a youth wage subsidy on employment

Amina Ebrahim
Research Associate, UNU-WIDER
PhD candidate, University of Cape Town

CSAE Conference
17 March 2019, Oxford
Introduced 1 January 2014 for 3 years ending 31 December 2016

Low wage subsidy for youth earning below R6,000 (£314) per month

Government decided to extend the policy for another 2 years ending February 2019. Recently further extended for 10 years.
Details of the ETI

Eligibility

Employees
- Hired after 1 October 2013
- Between 18-29 years old
- South African citizen
- Cannot be related to employer

Employers
- Registered for Pay-As-You-Earn (PAYE) – formal sector
- No public companies
- No debt owed to SARS
- Claimable from 1 January 2014
Details of the ETI

**Payment vehicle** – reduction tax bill

**Basis for computing subsidy** – monthly earnings

**Subsidy duration** – 24 months, reduction in amount after 12 months

<table>
<thead>
<tr>
<th>Monthly pay (ZAR)</th>
<th>First 12 months</th>
<th>Next 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2000</td>
<td>50% of monthly pay</td>
<td>25% of monthly pay</td>
</tr>
<tr>
<td>2000 – 4000</td>
<td><strong>R1,000</strong></td>
<td><strong>R500</strong></td>
</tr>
<tr>
<td>4000 – 6000</td>
<td><strong>1000 – (0.5x(monthly pay-4000))</strong></td>
<td><strong>1000 – (0.25x(monthly pay-4000))</strong></td>
</tr>
</tbody>
</table>
ETI evaluation

Examine the policy 6 months and 12 after its inception. No statistically significant change in the probability of youth employment (Ranchhod and Finn 2015, 2016).

Study of the perceptions of the ETI in the Vaal triangle. Firms support the policy but the majority of admit to not creating any new jobs (De Jongh et al., 2016).

Comparative analysis on the ETI with similar policies enacted in different countries. The ETI unlikely to reach its goal of due to firm lack of awareness, the short duration and absence of compulsory skills training (Odendaal, 2016).
Data used

**Individual income tax (IRP5)**
- Anonymised
- Job level tax data
- Unaudited

**Company Income Tax (CIT)**
- Firm level data

Unit of analysis is Tax Ref No
- Larger firms may have many PAYE Reference Numbers

Time Period
- Tax Year
- 2013 – 2015
  1 Mar ‘12 – 28 Feb ‘15
Industry distribution of ETI firms

- Manufacturing: 26%
- Wholesale & Retail: 22%
- Financial & Insurance: 18%
- Professional: 12%
- Accommodation & Food service: 12%
- Construction: 9%
- Other: 6%
## Firm size classes: ETI vs non-ETI firms

<table>
<thead>
<tr>
<th>Firms size</th>
<th>ETI</th>
<th>Take-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 Employees</td>
<td>3,400</td>
<td>3%</td>
</tr>
<tr>
<td>6-10 Employees</td>
<td>4,442</td>
<td>9%</td>
</tr>
<tr>
<td>11-50 Employees</td>
<td>13,548</td>
<td>21%</td>
</tr>
<tr>
<td>51-200 Employees</td>
<td>7,417</td>
<td>50%</td>
</tr>
<tr>
<td>201+ Employees</td>
<td>3,038</td>
<td>69%</td>
</tr>
<tr>
<td><strong>Total number of firms</strong></td>
<td><strong>31,845</strong></td>
<td><strong>13%</strong></td>
</tr>
</tbody>
</table>
Methodology

Conditional Difference-in-Differences approach (cDiD)

Step 1: Remove any ineligible firms (public sector firms)

Step 2: Calculate propensity score for each firm

Step 3: Identify a matched treatment and control firm

Step 4: Check balance of treatment and control groups

Step 5: Estimate a difference-in-differences model
## Results from the cDiD

<table>
<thead>
<tr>
<th></th>
<th>Tax year 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth employment</td>
<td>3.902***</td>
</tr>
<tr>
<td></td>
<td>(0.204)</td>
</tr>
<tr>
<td>Non-youth employment</td>
<td>4.780***</td>
</tr>
<tr>
<td></td>
<td>(0.380)</td>
</tr>
<tr>
<td>Total employment</td>
<td>8.704***</td>
</tr>
<tr>
<td></td>
<td>(0.594)</td>
</tr>
</tbody>
</table>

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
# Matching within firm size: cDiD results

<table>
<thead>
<tr>
<th>Firm size</th>
<th>Youth employment FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 5 employees</td>
<td>1.766*** (0.067)</td>
</tr>
<tr>
<td>6 – 10 employees</td>
<td>2.226*** (0.183)</td>
</tr>
<tr>
<td>11-50 employees</td>
<td>2.511*** (0.125)</td>
</tr>
<tr>
<td>51 – 200 employees</td>
<td>7.428*** (1.034)</td>
</tr>
<tr>
<td>201+ employees</td>
<td>19.71 (56.7)</td>
</tr>
</tbody>
</table>

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Conclusion

We see a *significant change* in the *overall demand* for youth labour.

We find that firms with more than 200 do not display a significant increase in labour demand for youth.

Similar to results in other studies we see an increase in the overall and non youth labour at firms that claim the ETI.
As the 2016, 2017 and 2018 tax data is now available we hope update this analysis and separately track youth before, during and after the policy to see if there has been any effect on their income.

Examine displacement effects, firing of non-youth or non-eligible workers to claim the tax incentive.
www.wider.unu.edu
Helsinki, Finland