The returns to voucher-financed training on wages, employment and job tasks

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Motivation

- Many European countries provide training vouchers to subsidize employees’ training costs.
- For training in general, the large literature on the wage returns finds mixed results, varying between zero returns to training and large positive effects.
- The impact of training on non-pecuniary returns is smaller: Employment was less often investigated. And there is no paper analyzing how training influences what people do at work, i.e. whether training affects individuals’ job tasks.

Research Question:
- Does training co-financed by a German voucher program affect wages, employment and job tasks?

Identification Strategy

- The returns to training are estimated by comparing the change of the outcomes across time of a treatment group (i.e. participants in voucher-financed training) with the corresponding change of a control group.
- The control group consists of non-participants who intended to participate in training and who received a training voucher, but had to cancel their plans due to a random event (e.g. cancelation of the course or change of time/location by the training provider, illness or a family-related reason).
- Socio-demographics and job characteristics are balanced between the groups: Out of 17 variables, only age, married and part-time contract differ slightly. Pre-treatment outcomes do not differ significantly (Table 1).

Results and Conclusion

- Since 2008, the German training voucher program Bildungsprämie reduces training costs by 50% up to 500 Euro. 2/3 of the employees from the lower part of the wage distribution were eligible for the voucher (~25 million employees with low and medium income).

Data:
- The survey was conducted with voucher recipients who received a training voucher in 2010. Individuals were interviewed by telephone for the first time shortly after they had received the voucher. The second interview took place 12 months after the first interview.
- For both panel waves, information on 1,102 individuals is available.

**The Voucher Program and Data**

- The voucher program is financed by the federal government and implemented by the private sector.
- Participants provide their personal data and are assigned to a specific voucher.
- Vouchers can be used for different types of training, including general vocational training and specific skills.

Table 2: Estimated effects of voucher-financed training

<table>
<thead>
<tr>
<th>Training, wages and employment</th>
<th>Coefficient (Std. Err.)</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of training courses</td>
<td>1.0370 *** (0.2038)</td>
<td>2,186</td>
</tr>
<tr>
<td>Gross monthly income</td>
<td>-17.2099 (75.8419)</td>
<td>1,762</td>
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<tr>
<td>Employed (y/n)</td>
<td>-0.0141 (0.0288)</td>
<td>2,204</td>
</tr>
<tr>
<td>Unemployed (y/n)</td>
<td>-0.0018 (0.0202)</td>
<td>2,202</td>
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</tbody>
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**Job tasks of employees**

- Routine manual tasks
- Nonroutine manual tasks
- Routine cognitive tasks
- Nonroutine analytic tasks
- Nonroutine interactive tasks

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<tr>
<td>1,828</td>
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Notes: All regressions control for marital status and children, and apply individual fixed effects. The regressions of job tasks also control for employment variables. Standard errors (shown in parentheses) are clustered at the individual level. Significance levels: ** p < 0.01, *** p < 0.001.

Conclusion

- Training has no impact on wages, employment, but increases the likelihood to be engaged in nonroutine analytic tasks (see Table 2).