Effects of subsidizing the first employee – Empirical evidence from Finland

Ensimmäisen työntekijän palkkaustuen vaikutukset – Empiirinen analyysi Suomesta

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Abstract

This[1] paper studies the effects of the first employee employment subsidy that was in force in Finland from 2007 to 2011. Businesses that had no employees in the previous 12 months could receive the subsidy to hire the first employee. The subsidy was granted by the ELY center from application and amounted to 30% of the wage costs for the first year and 15% for the second year excluding payroll taxes. The employment contract had to be permanent and for at least 25 hours per week. The subsidy was first available in a few high unemployment municipalities in northern and eastern Finland, but was extended to cover a large share of municipalities in 2008 and small areas were added in 2009 and 2010. The areas added to the subsidy area from 2008 onward included economically average areas in addition to worse performing areas.

The subsidy was supposed to encourage non-employer firms to become employers. Becoming an employer is not a trivial step for a firm: there are fixed costs in becoming an employer for the first time both naturally and due to bureaucracy (such as learning the legal responsibilities of an employer), and it generally implies a relatively large increase in business activity that may require large investment and increase in risk. Actually, more than half of Finnish companies are non-employer firms. Consequently, political discussion has suggested that there is large employment potential in non-employer firms. However, the special case of non-employer firms and the determinants of becoming an employer have not yet received much attention in economic literature. Therefore, there is no evidence on the effectivity of such subsidies yet.

Using tax register data of all Finnish companies from 2000 to 2013, I study the effects of the subsidy on the probability of becoming an employer using a Difference-in-Differences framework. The analysis is restricted to the border of the subsidy area to exclude the largest regional differences in economic trends. The change in the rate of becoming an employer in the subsidy area is compared to the change in the control area. Therefore, the treatment area is the municipalities on the border of the subsidy area where the subsidy is available. Correspondingly, the control area is the municipalities on the border of the subsidy where the subsidy is not available i.e. the neighboring municipalities of the treatment area. Comparisons of pre-treatment trends suggest that the common trends assumption is not violated and difference-in-differences can be used. Placebo regressions are also conducted and they do not raise serious concerns about the validity of the method.

To identify the effect on non-employer firms, I restrict the analysis to firms that have zero employees in the year before the subsidy period and follow whether they became employers in the subsidy period. Similarly, in the pre-subsidy period, i.e. the four years before the subsidy, the firms that had zero employees in the previous year are included. Here, only the areas where the subsidy became available in 2008 and the corresponding control area are included (i.e. neighboring municipalities of the 2008 treatment municipalities where the subsidy is never available). Therefore, in the subsidy period i.e. 2008–2011 firms that have zero employees in 2007 are included and in 2004–2007 firms that have zero employees in 2003 are included. Then, I do simple Diff-in-Diff regressions using a Dummy for being an employer by the first, second, third or fourth year as the outcome variable. In short, I study whether the subsidy affected the rate of becoming an employer in a span of four years.

The results suggest that there is no significant effect on the hiring probability. This result does not change when the analysis is restricted to groups of firms that are more likely to hire: firms excluding sole proprietorships, new firms or VAT-liable firms (firms that have a turnover of more than 8,500 euros). In addition, I estimate the effect on hiring probability using a proportional

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[1]Finnish abstract below.

hazards model where firms at risk of hiring the first employee are defined as those that had zero employees in the previous year. This approach enables me to account for the time in which a firm has been a non-employer. These results support the conclusions from the simple Diff-in-Diff regressions that the subsidy did not increase hirings.

In addition to the effect on non-employer firms, the subsidy can affect the overall probability to become an employer firm as it encourages starting a business, or may discourage exiting, as well as encourages existing non-employer firms to hire. However, this effect is much more difficult to study because there is no clear target group in the data. This question is studied here using data aggregated to the municipality*industry level where the outcome variable of interest is the number of firms. These results do not suggest that the subsidy significantly affected the number of firms. Using, for example, the number of employer or non-employer firms as the outcome variables does not change the results. Therefore, no effect at the exit/entry margin is found.

The results, therefore, suggest that the first employee subsidy did not have a significant effect on existing non-employer firms or at the firm exit/entry margin. The estimates are also precise, except in some subgroups, implying that labor demand elasticity of non-employer firms is very small. The results are robust across different firm groups, so the elasticity is not very different between, for example, all firms and new firms. The results can be due to non-employer firms consisting mainly of self-employed people who are not responsive to hiring incentives so that the affected group of firms is really small. If there are large constraints in becoming an employer that may cause many firms to remain non-employers and the subsidy can help them overcome these constraints, the subsidy should increase the probability of becoming an employer significantly. Thus, the results imply that either the constraints were not significant or the subsidy was not effective in abolishing them. The ineffectiveness of the subsidy can be due to poor implementation and design – the payment and application process included some bureaucracy and firms were not well informed about the subsidy, which may be a reason for the low participation rate.