## Job security and fertility decisions: Evidence from a temporary work reform\*

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## **1** Extended abstract

Alternative work arrangements are on the rise across all OECD countries (Katz and Krueger, 2019; Boeri et al., 2020). An increasing share of the workforce is employed as temporary workers, through temp agencies, or as self-employed. Young workers are overrepresented in these alternative work arrangements (OECD, 2002, 2020). In this paper, we study how job security – represented by access to permanent positions – affect fertility choices such as the age at first birth and the total number of children.

Having children increases the cost of living, both in terms of running costs (food and clothing) and in terms of larger investments, such as buying a larger place to live. As these costs are not isolated to one period, families need stable income to afford them. As temporary work means higher risk of unemployment and less stable income, it is likely to affect couples' fertility decisions. Several studies show that women postpone childbearing until they have finished studies (Liefbroer and Corijn, 1999; Lappegård and Rønsen, 2005), and survey evidence underlines the importance of secure income for the decision to have a child (Cools and Strøm,

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In this paper, we use high quality population wide data from administrative registers in Norway to investigate the relationship between labour market arrangements and fertility transitions. Specifically, we leverage a change in legislation regarding temporary employment to obtain causal estimates of how temporary versus a permanent positions affects the transition into parenthood and higher order births.

In the first part of this paper, we show how typical "life trajectories" in Norway have changed from 1995 and up until 2021. We describe the age profiles for being in education, being employed (temporarily or permanently), couple formation through cohabitation and marriage, and for having children. By use of cluster analysis we show the typical sequences of education, work and family decisions among young people, and how these sequences have changed over time. The lack of detailed descriptive evidence of the relationship between education-to-work transitions and fertility decisions, and how alternative work arrangements at the beginning of the career plays a part, motivate this part of the analysis.

In the second part of the paper, we study how temporary work affects age at first birth and number of children by using an shift in the legislation on temporary contracts. In July 2015, the Norwegian government implemented a reform that lowered employment protection in Norway. Before the reform, temporary contracts were only allowed under special circumstances, such as seasonal work or temporary replacement for a worker on leave. After the reform, temporary contracts of up to one year were allowed for all regular jobs.

Although the reform was implemented nationally, there is local variation in the implementation of the reform. Municipal political majorities could overrule the national policy leading to so called "refusing municipalities". As a result, the reform was only partially implemented across Norway, yielding quasi-experimental variation between municipalities in the temporary job share. We exploit this variation to identify the effect of temporary work on fertility outcomes. We show that the refusing municipalities had similar demographics and industry structure, and were on similar pre-trends in employment and temporary employment shares. We can therefore use them as a control group in a difference-in-differences estimation.

Figure 1: Difference between treatment and control groups conditional on observable characteristics, 2010-2019



Notes: The figure shows the adjusted mean differences between treatment and control municipalities, relative to the reference period. The reference period is marked by the solid line, and is 2014 for the employment estimates and 2015 for the temporary job estimates. Due to a change in the employer/employee registers' reporting regime in 2014, the measure for temporary contracts cannot be estimated reliably in 2014, as a temporary job is defined by its duration in the registers and all jobs in the old regime ended by definition in 2014. The estimates are adjusted for sex, immigrant status, age and age squared. Standard errors are clustered at the municipality level (as of May 2015). Spikes show the 90% confidence intervals.

In Figure 1, we show how the reform affected the probability of being employed (left panel) and the probability of being employed with a temporary contract (right panel). Notably, the reform did not change overall employment; there are no statistically significant differences between the treatment and control municipalities either before or after the implementation of the reform in 2015. The right panel of the figure shows, however, that the reform did change the probability of being employed in a temporary position, as measured by being observably employed with the same employer for less than 12 months.<sup>1</sup> After the reform, the probability of having a temporary job increases steadily by up to 0.2 percentage points (corresponding to a four percent increase relative to the pre-reform mean), while employment probabilities are unaffected. Hence, we believe this change in legislation induces quasi-experimental variation between treatment and control municipalities in the probability of having a temporary job relative to a permanent one.

<sup>&</sup>lt;sup>1</sup>Due to a change in the employer/employee registers' reporting regime in 2014, the measure for temporary contracts cannot be estimated reliably in 2014, as a temporary job is defined by its duration in the registers and all jobs in the old regime ended by definition in 2014.

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