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# **Employment effects of a payroll-tax cut – evidence from a regional tax exemption experiment**

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# Employment effects of a payroll-tax cut—evidence from a regional tax exemption experiment \*

by

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## Abstract

In this paper we evaluate the effects of a regional experiment that reduced payroll-taxes by 3–6 percentage points for three years in Northern Finland. We match each firm in the target region with a similar firm in the control region and estimate the effect of the payroll-tax reduction by comparing employment and wage changes within the matched pairs before and after the start of the experiment.

According to our results the reduction in the payroll-taxes led to somewhat faster wage growth in the target region. The increase in wages offset roughly half of the impact of the payroll tax cut on the labour costs. The remaining labour cost reduction had no significant effects on employment.

Keywords: Payroll-tax, Labour demand, Tax incidence, Propensity score matching

JEL-codes: J18, J23, J38, J58, J65, J68

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# 1 Introduction

A reduction of payroll-taxes lowers wage costs and hence boosts the demand for labour. However, the employment effect crucially depends on the incidence of the payroll-taxes. If the tax cut leads to higher wages that offset the reduction in taxes, the tax cut has no effect on employment.

Past evidence on the incidence and on the employment effects of payroll-tax changes is mixed. Studies that rely on time-series or cross-country variation in the national payroll-tax produce widely varying estimates of tax incidence. An important problem in such approaches is the omitted variables bias. In the time-series studies, there may be simultaneous changes in other variables that affect wages and employment. In the cross-country studies it is difficult to control for all the differences in wage-setting institutions. These unobserved across-country differences may be correlated with the differences in the level of taxation and employment. Therefore, a more promising approach is to examine the effects of changes in taxes or other mandatory employer contributions when these changes differ across otherwise similar firms. Prime examples of such studies include Bohm & Lind (1993) who evaluate employment effects of regional wage subsidies in the Northern Sweden, Gruber (1994) who evaluates the effects of mandated maternity benefits in the US, Gruber (1997) who examines the changes in the mandatory pension contributions in Chile, and Johansen & Klette (1998) who examine the effects of regional differences in payroll-taxes in Norway. These studies typically find that the changes in the payroll-taxes are almost completely shifted into wages with little effect on labour costs or employment.

In this paper we evaluate employment and wage effects of a regional experiment in Northern Finland. This experiment abolished employer contributions to the National Pension Scheme and to the National Health Insurance for firms located in the targeted high unemployment regions. Prior to the experiment, these employer contributions varied between 2.95 and 6 percent of the wage bill, depending on the capital intensity and the size of the firm. From January 1<sup>st</sup> 2003, all private employers in the 20 target municipalities located in the Northern Finland and on the islands along the























































