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# Do Payroll Taxes in the United States Create Bunching at Kink Points?

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In the United States, Federal Insurance Contributions Act (FICA) taxes fund Social Security and Medicare. Since 1990, FICA taxes have included a 6.2 percent Social Security tax on earnings up to the taxable earnings maximum and an additional 1.45 percent tax for Medicare. These rates apply to both the employee and the employer such that while the employee pays 7.65 percent directly, the total FICA tax rate is 15.3 percent. The taxable earnings maximum is increased annually based on average national wage. In 2015, the maximum was set at \$118,500. FICA taxes are typically directly withheld from employees' paychecks such that changes in the payroll tax are often immediately observable to taxpayers. Payroll taxes are an important source of revenue to the federal government and the primary mechanism for tax payments among most households. More than 65 percent of households in the United States pay more in payroll taxes than income taxes in a year. This percentage is especially high at lower incomes and decreases consistently as earnings increase.

After years of stability in the payroll tax schedule, there have been two recent short-term payroll tax reforms. Moreover, policymakers have frequently proposed raising or eliminating the payroll tax cap to generate additional revenue for Social Security. Despite a vast literature on the responsiveness of taxpayers to income taxes in the United States, we have little knowledge about labor supply behavioral responses to payroll taxes specifically. The recent policy changes offer a unique opportunity to study the magnitude of such responses. Understanding the sensitivity of labor earnings to payroll taxes is especially important in predicting the ramifications of altering the payroll tax schedule.

As a response to the Great Recession, several policies were enacted to increase the amount of household disposable income. These policies also changed labor supply incentives. In 2009 and 2010, the Making Work Pay Tax Credit (MWPTC) provided 6.2 percent of earned income up to a maximum of \$400 for individuals or \$800 for married couples. In 2011 and 2012, the payroll tax holiday reduced the employee portion of the Social Security tax rate from 6.2 percent to 4.2 percent. This rate reduction affected those with earnings below the

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payroll cap. Both policies altered labor supply incentives. More recently, the Patient Protection and Affordable Care Act increased the Medicare tax rate by 0.9 percent for incomes above \$200,000 (\$250,000 for married couples). We have little empirical evidence to predict the consequences of these tax changes.

Using Social Security Administration data from 2008 to 2011, I test for changes in the labor earnings distribution, especially around the thresholds created by the MWPTC and payroll tax holiday. The MWPTC reduced the tax rate up to \$6,451 of annual earnings (\$12,903 for married couples). The payroll tax holiday changed the incentives around the existing payroll tax cap (\$106,800). If individuals respond to payroll taxes, then the number of people with earnings close to these thresholds should change in the years that the policies were in effect.

Despite the relative small size of the recent payroll tax reforms, I find rather large behavioral responses to the MWPTC, primarily around the \$12,903 threshold. This responsiveness is driven by individuals with self-employment income, suggesting that individuals responded more on the income reporting margin than true labor supply changes. I find smaller, but statistically significant, effects around the payroll tax cap. These estimates were not driven by the self-employed population, which is consistent with a true labor supply effect. These results suggest scope for affecting labor supply through payroll taxes. They also imply that raising the payroll tax cap must account for the subsequent labor supply behavioral responses.

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