On the Design of Paid Sick Leave:
A Structural Approach

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October 26, 2022

JOB MARKET PAPER
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Abstract

What is the optimal paid sick leave system? To answer this question, I combine individual-level data on paid sick leave claims with a model of sick pay insurance provision. I start by providing evidence that workers respond to the monetary incentives induced by the benefit scheme—i.e., workers engage in moral hazard behavior. I also document that workers respond to non-monetary shifts in the temptation for shirking behavior induced by the day of the week a worker falls sick. I use these patterns to inform a model of sick pay insurance. In the model, risk-averse workers face a health risk and decide how many days to be on leave. Workers are insured by a risk-neutral social planner who chooses the optimal contract to maximize social welfare, considering workers' behavioral responses. Social welfare is a function of workers' utility and the potential production losses induced by sick pay provision. The main empirical challenge to estimating the model is to disentangle the underlying distribution of health from workers' preferences. To overcome this challenge, I combine the individual-level data on sick pay utilization with detailed medical assessments of recovery times associated with each health condition. This strategy allows me to construct the underlying distribution of health without imposing parametric assumptions. To estimate workers' preferences parameters, I exploit the days of the week a sick leave claim is filed as quasi-exogenous shifters of the temptation for shirking behavior as the main source of variation. Finally, I use the estimated model to derive the optimal sick pay contract and estimate the welfare gains of its implementation. I find that the optimal system would provide more insurance for short term sickness and less insurance, i.e., lower replacement rates, for longer sickness spells relative to the current system. I estimate that workers are willing to give up 1.53% of their earnings to be insured under the optimal policy.

Keywords: optimal social insurance; moral hazard; sick pay; welfare effects

JEL codes: I12, I13, I18, J22, J28, J38