



FIRM INVESTMENT, LABOR SUPPLY, AND THE DESIGN OF SOCIAL INSURANCE: EVIDENCE FROM ACCOMMODATIONS FOR WORKPLACE DISABILITY

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Return to work programs can play a key role in improving labor force participation of individuals with disabilities, a key consideration in SSDI policy. Yet, few studies have analyzed the impact of related employer-based programs in the U.S. or considered the impact of policies affecting employer incentives to accommodate workers after injury. We study a unique return-to-work program that directly incentivizes employers to accommodate injured workers and leverage quasi-experimental variation, coupled with detailed administrative data, to identify some of the first estimates of the effects of these incentives.

Firm Incentives and Accommodations for Workers with Disabilities

In this paper, we study the role of firm accommodation incentives in the context of workplace injuries. Workplace injury is a major source of disability risk and labor force exit in the United States. In 2015, there were nearly three million nonfatal occupational injuries and illnesses (BLS, 2017), and around one-third of SSDI recipients report disabilities originating from workplace injury (Reville and Schoeni 2004). Many workplace injuries are covered by workers' compensation programs, which provide one of the earliest forms of intervention for disabled workers and thus provide a potential avenue for firm engagement. Given this backdrop, we have two main objectives in this paper. The first is to contribute quasi-experimental evidence on the effect of early-stage firm accommodation incentives on labor market outcomes for injured workers using detailed administrative claims and wage data. The second is to evaluate the welfare implications of firm accommodation incentives and optimal workers' compensation design within a dynamic bargaining model of workers and firms, using our empirical estimates to identify the model.

Our empirical context is the workers' compensation program in Oregon. A relatively unique feature of the Oregon program is the Employer at Injury Program (EAIP), which provides incentives for employers to accommodate injured workers as they return to work. EAIP provides funds for physical accommodations as well as wage subsidies for injured employees to help defray costs related to, for example, flexible work arrangements or retraining. In 2013, almost 2,000 employers were provided EAIP benefits for accommodating over 8,000 workers, at a total cost of \$19 million (ODBCS, 2016). To examine the effect of accommodation incentives on both firm and worker behavior, we exploit a change in the EAIP wage subsidy rate in January 2013 from 50 percent to 45 percent. We analyze detailed administrative data of Oregon workers' compensation claims from 2005 through 2015 and linked to longitudinal quarterly wage records of claimants from 2000 through 2019.



Our main analysis uses a difference-in-differences strategy to evaluate the policy change. To do this, we use machine learning techniques to assign individuals to “control” and “treatment” groups based on their predicted use of EAIP (the use of EAIP means that both the employer has offered accommodation and that the employee has accepted and decided to return to work). We then develop and estimate a model of workplace disability and workers' compensation to explore potential inefficiencies in accommodation decisions and assess the implications for optimal policy. The model is a dynamic bargaining model between workers and firms in an environment with labor market frictions, worker turnover, and a workers' compensation program financed by firms. Workers are subject to injury risk, which potentially entails temporary disutility of work, a persistent loss of productivity, and a higher probability of exit from the labor force.

Firms may under-accommodate without appropriate incentives.

Comparing the treatment and control groups before and after 2013, we use difference-in-difference models to estimate the effect of the policy change on EAIP take-up, employment, retention, and earnings up to eight quarters after injury. We find that the subsidy change causes EAIP use to decline by 5.5 percentage points off a base of 28 percent in the treatment group, or a 20 percent decline. Furthermore, simulations from the structural model suggest that without appropriate incentives, the firm may not provide sufficient accommodation at the level that would be most beneficial to society. The model provides insight on two possible reasons why firms may under-accommodate. First, if workers leave the firm after receiving accommodation, firms may pay the costs of accommodating but may not benefit from the gains of the rehabilitated productive worker. Secondly, many workers' compensation insurance policies are structured so that firms are not fully exposed to workers' compensation costs, so they do not feel the financial consequences (positive or negative) of their accommodation decisions completely.

Accommodation improves labor market outcomes for workers with disabilities.

We further estimate that the decline in the wage subsidy was associated with commensurate declines in employment, earnings, and hours worked among workers with disabilities who otherwise may have been accommodated had the subsidy not changed. We estimate that the subsidy change leads to a four percentage point decrease in employment and a decrease of over \$1,000 in earnings per quarter (approximately 15 percent off a base of \$6,800), but no detectable changes in the probability of moving to a different firm. Estimates from the structural model imply that a wage subsidy of 40 percent would maximize worker welfare, with the largest gains going to workers with a low disutility of work.

Implications

- In the absence of incentive policies like wage subsidies, firms may not provide sufficient accommodation at the level that would be most beneficial to society.
- Disability policy could consider a combination of incentives to firms as well as assistance for workers in order to provide comprehensive support that could benefit both workers and employers.

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