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Privatizing public services and strategic behavior: The impact of incentives to reduce workers' compensation claim duration

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ABSTRACT

During the 1990s, the state of Ohio contracted out Workers' Compensation (WC) case management, incorporating a large bonus payment intended to reward reduced claim duration. The bonus is essentially a decreasing function of average days away from work, excluding claims longer than 15 months. In response, duration is predicted to decrease for claims with moderate injuries and increase for some severe claims so that claimants will miss more than 15 months of work and be excluded from the calculation. I show that contractors increased duration for severe claims but find no evidence that contractors successfully reduced duration for moderate claims. However, contractors received large bonus payments. This is likely because the financial reward to merely excluding a small share of severe claims from the calculation of the bonus payment is large enough to enable TCMs to receive the full bonus. These contractor responses are inconsistent with state intentions, suggesting public entities should anticipate strategic behavior when crafting performance-based incentives.

1. Introduction

In recent decades, the public sector has privatized an increasing variety of services, ranging from public utilities in many developing countries to defense, prisons, schools, and social services in the United States. As the number of services subject to privatization grows, a key concern is how to best structure contracts to support programmatic goals and mitigate unintended consequences. In this paper, I study one such privatization effort, contracting out case management services in the state of Ohio's Workers' Compensation (WC) program—a large social insurance program that provides medical care and cash benefits to workers injured on the job. The contracts include a substantial performance-based component, and I show that the contractors respond strongly to the incentive structure. However, because of the nonlinear incentive structure, some responses are inconsistent with the state's intentions. In addition to documenting these unintended consequences, I also identify one mechanism the contractors use to carry out this strategic behavior. The conclusions of this analysis can inform other privatization efforts, especially those that evaluate contractors based on program recipient outcomes, as in social services.

In the United States, several social service programs have been subject to privatization, including welfare, job training, and WC. Contracts for these privatization efforts often incorporate a performance-based component rewarding program participant outcomes, such as leaving the welfare rolls, employment upon completion of job training, and the focus of this paper—reducing the amount of time injured workers spend away from work for WC. Previous work examining such privatization efforts primarily focuses on contracts that quantify performance using post-training wages or employment (e.g., Courty and Marschke, 2008; Heckman et al., 2002). These papers show that short-run outcomes improve in an effort to increase performance, as measured by the performance standards, but find no change in long-run outcomes. In this paper, I examine the impact of a different type of contract—one that rewards reductions in the duration of benefit receipt rather than post-program outcomes. Like welfare, injured workers receive WC benefits while out of work, so reducing duration will decrease program costs. Therefore, the findings from this analysis are directly applicable to evaluations of case managers in programs such as welfare or unemployment, other public programs that face higher costs when recipients receive benefits longer.

Similar to Unemployment Insurance, benefits and costs for WC vary across states, and state policymakers are concerned that high employer costs will make their state less attractive to business. Employer costs for WC rose by over 25% between 1987 and their peak in 1993. In response, many states passed policy reforms in an effort to reduce these employer costs.[1] In this paper, I examine one such reform enacted by the state of

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[1] Several different policies were enacted, some addressed employer costs directly by deregulating premiums or expanding opportunities for self-insurance. Other policies sought to decrease costs by reducing the total amount of benefits paid to injured workers, either by making it more difficult for benefits to be awarded or by attempting to get injured workers back to work sooner. Although there is some empirical evidence about the efficacy of these reforms (e.g., Boden and Ruser, 2003; and Neumark et al., 2007), these papers examine reforms that differ from the privatization intervention examined in this paper, and many unanswered questions remain.

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Ohio; the state contracted out WC case management responsibilities to companies called Third-Party Case Managers (TCMs) with the hope that, as private companies, TCMs might be able to get injured workers back on the job more efficiently than if the state continued to manage WC claims.[2]

Two years after the TCMs were introduced in Ohio, the state incorporated a large bonus incentive payment intended to reward the TCMs for getting injured workers back on the job sooner. The impact of this bonus payment on claim duration is the focus of this paper. The exact structure of the payment is quite intricate, but it is essentially a decreasing function of average days away from work for claims meeting two criteria. First, the state selected a subset of detailed injuries to "incentivize," so a claim is only included in the payment calculation if the worker is diagnosed with one of the "incentivized" injuries. Second, a claim having an incentivized injury is excluded from the calculation of average days away from work if the injured worker does not return to his or her job within 15 months. As a result of this provision, the policy does not penalize TCMs for a particularly bad draw of claims. However, it gives TCMs a perverse incentive to actually *increase* duration for some claims with incentivized injuries so that the claimants miss more than 15 months and are then excluded from the calculation of average days away from work used to compute the bonus payment.

Therefore, the structure of the bonus payment suggests that a profit-maximizing TCM will react with heterogeneous responses as a claim develops over time. It takes an average of seven days after an injury for a TCM to learn of the claim from the doctor. So duration for shorter, less severe injuries that are resolved before one week passes should not differ for incentivized injuries. If the injured worker is still away from work when the TCM learns of the claim, the case manager will initially attempt to get the injured worker back on the job as soon as possible. The case manager will continue to endeavor to expedite return-to-work until the claim extends long enough that the claimant could feasibly remain out of work past 15 months. At this point, it is profitable for the TCM to extend the claim beyond 15 months so that it is excluded from the bonus payment calculation. One possible way a case manager might extend a claim is by enrolling the injured worker in vocational rehabilitation to re-train claimants for work.

To test whether the TCMs maximized the bonus payment by attempting to reduce duration for moderately severe claims and increasing duration for severe claims, I acquired administrative claims data for all claims occurring between 1995 and 2002. I use variation in the implementation of these policies over time and across injury to determine whether or not the policy changes have any impact on claim duration. The structure of the bonus suggests it will not have any effect on the most minor claims because these claimants return to work before the TCM becomes involved, and this is confirmed in the data. The case managers are predicted to successfully reduce duration for those claimants having moderately severe injuries because as soon as claims are filed, the injured workers are exposed to an aggressive return-to-work campaign. However, I find no evidence that the bonus induces TCMs to reduce duration of moderately severe claims; results from quantile regression confirm that duration does not increase for these claims. One reason TCMs may not have focused efforts on reducing duration for this group may be because the financial reward to keeping *severe* claims out of work longer—and out of the calculation of the bonus payment—is so large that TCMs did not need to get moderately severely injured claimants back to work sooner to receive the full bonus payment.

Duration is predicted to increase for claimants with severe injuries because claims lasting longer than 15 months are excluded from the calculation of the bonus payment. I test for this response in several ways and conclude the bonus increases duration for severe claims with incentivized injuries. Restricting attention to severe claims, I find that the bonus increases average days away from work by nearly three weeks for claims having incentivized injuries. I verify that this corresponds to the predicted strategic behavior on the part of the TCMs because the probability a claim spans more than 15 months rises by over 30% for claims having an incentivized injury. Since the most severe claims comprise a disproportionate share of program costs, the intended reduction in employer costs was not realized.

With the administrative data, I test one mechanism that case managers may use to influence claimants to remain out of work past 15 months—vocational rehabilitation. On average, the timing of the program is consistent with its use as a method to strategically increase duration past 15 months, and incentives to employers and TCMs are consistent with increasing use of vocational rehabilitation. After the bonus is in place, claims having incentivized injuries are over 50% more likely to receive vocational rehabilitation.

I also estimate the overall effect of TCMs because it is possible that simply contracting out services impacted claim duration. To quantify this, I must assume that introducing TCMs was the only change to duration in Ohio between 1995 and 2002, an assumption that is unlikely to hold. Nevertheless, I find that after the TCMs began operation average duration fell for all minor claims, even if the claim had a non-incentivized injury. In total, although contracting out services to TCMs modestly reduces days away from work for the majority of minor claimants, the net result of the bonus payment is an overall increase in days away from work. I estimate the bonus payment costs the state over $8.5 million per year in additional benefits paid.

2. Workers' compensation, third-party case managers, and the bonus payment

2.1. Workers' compensation insurance

States mandate that employers provide WC insurance at the benefit levels set by each state. Employers may purchase WC insurance from private companies, from the state, or, if the company is large enough, the employer may self-insure.[3] Nationwide, approximately 50% of benefits are paid by private insurers, and state insurers and self-insured employers each pay 25% (Sengupta et al., 2009).[4] In five states, including Ohio, private insurance is not offered so all smaller employers purchase public insurance and larger employers may self-insure.[5]

WC claims fall into two categories: "medical only" or "cash benefits." A worker is injured on the job and seeks medical care from a doctor who certifies that the injury is work-related. Those claimants who only receive medical care and return to work within one week are called medical only recipients. Claimants missing more than one week of work receive both medical care and cash benefits and are labeled cash benefit recipients. Although only 20% of claims receive cash benefits, they incur nearly 95% of benefits—medical care and cash payments. Furthermore, costs are concentrated in a fraction of the cases; 35% of cash beneficiaries are responsible for 80% of costs (Sengupta et al., 2009). Therefore, the most productive efforts to reduce benefits paid will target particularly severe claims.

Payments cease when the injured worker heals and returns to work.[6] Conflicting motives regarding claim duration make it difficult for injured workers, employers, insurers, or state policymakers to influence when a claim will end. A worker who values leisure may wish to remain out of work longer when benefits are more generous

[2] In Ohio and the larger WC community, TCMs are referred to as Managed Care Organizations (MCOs); however, I refer to them as TCMs to avoid confusion with health insurance MCOs, which are structured differently.

[3] If an employer purchases WC, the premiums are an increasing function of how risky the employer's business is (base premium) and the employer's loss history (experience rate). Smaller employers simply pay these base premiums, and WC premiums are experience rated for larger or riskier employers.

[4] In states that offer all three forms of insurance, only employers with poor loss histories acquire public insurance.

[5] The five states are Ohio, North Dakota, Washington, West Virginia, and Wyoming.

[6] In some cases, the worker only heals partially and returns to work in a restricted capacity or is permanently disabled and receives permanent benefits.