Unions and the decision to apply for and the receipt of workers' compensation benefits

Woock, Christopher

February 2009

UNIONS AND THE DECISION TO APPLY FOR AND THE RECEIPT OF WORKERS' COMPENSATION BENEFITS

CHRISTOPHER WOOCK
The Conference Board
845 Third Avenue
New York, NY 10022
christopher.woock@tcb.org
212-339-0415

Keywords:

Union; Workers' Compensation; National Longitudinal Survey of Youth; Workplace Injury

JEL Codes:

J5, I1

* The author would like to thank Jim Ziliak and Barry Hirsch for comments on an earlier draft. The data and programs used in this article can be obtained from the author upon request.

UNIONS AND THE DECISION TO APPLY FOR AND THE RECEIPT OF WORKERS' COMPENSATION BENEFITS

Abstract: Using a unique set of questions in the National Longitudinal Survey of Youth 1979 provides some direct evidence on the mechanism through which union coverage increases WC receipt. Delineating the effects of unions on the decision to apply and the receipt of WC benefits reveals that unions substantially increase the probability of applying conditional on injury, but decrease the probability of receipt conditional on applying.

1. Introduction

Applying for and receiving Workers' Compensation (WC) insurance in not an automatic outcome following a workplace injury. The structure of the WC system, the nature of the worker's job and socioeconomic situation, and various other factors affect the injured worker's decision to apply for WC. Likewise, factors such as the type and severity of the injury, and the events surrounding the injury influence decisions to award WC benefits to an applicant. A number of researchers have addressed the incentives injured workers face in their decision to apply for Workers' Compensation. However, much of this work ignores the role of unions in influencing both the decision to apply for WC and the receipt of benefits.

Hirsch, Macpherson, and DuMond (1997) used merged panels of the 1977-1992 March Current Population Surveys to estimate the influence of union status on the receipt of WC benefits. Limited by their data source, Hirsch et al (1997) assumed the application decision is captured by whether the individual receives WC. Only Lakdawalla, Reville, and Seabury (2007) have modeled the decision to apply separately from the receipt of benefits. The role of union membership was secondary to their focus on the influence of individual health insurance on WC filing, and their analysis stopped with the decision to apply. Here I make use of a set of questions in the National Longitudinal Survey of Youth 1979 to estimate a union's influence on the decision to apply and, conditional on applying, the receipt of benefits.

Today, about 97% of workers are covered by either their state's WC program, or by one of two Federal WC programs (Meyer 2002). Eligibility begins immediately with employment; unlike unemployment insurance laws there is no work history requirement. By law the employer is liable to the employee for losses associated with a workplace injury, and (in most states) is required to purchase insurance to cover this liability (Biddle 2001). Generally, the injured employee must notify their employer, file the claim with the appropriate agency, and submit to examination by an appropriate physician. The process varies by state, and can be quite complex.

Unions play several important roles in the case of a workplace injury. The union provides the collective voice for workers to better communicate with the employer (Budd 2007). Without unions, workers may be less likely to request non-pecuniary benefits, such as improved

workplace safety or accommodations for injured workers, for fear of retaliation. As Hirsch et al (1997) note, due to the threat of union grievance "(m)anagers are not likely to discourage legitimate claims for workers' compensation…" and managers would be less likely "to monitor and penalize workers for questionable claims." Second, as Budd (2007) notes, "labor unions can facilitate workers' knowledge and use of existing benefits." Kramer (2008) shows union members are more likely to be aware of their parental leave benefits provided under the Family and Medical Leave Act, while Gustman and Steinmeier (2005) found union employees have greater knowledge of their social security and pension benefits. Both the collective voice and the facilitation of information by unions suggest that union members, all else equal, should have a higher probability of filing a workers' compensation claim.

Conditional on applying, is there a role for unions in influencing the *receipt of benefits*? The facilitation role of the union, as mentioned, provides support for the worker should the employer challenge the claim. Union representatives may also have legal access to information that might strengthen an application, including safety records, data on a plant's hazardous conditions, and the firm's past WC experiences. Collective bargaining agreements may contain provisions that streamline the application process, reducing the likelihood of application errors. In contrast, by facilitating the application process, unions may increase the number of unqualified claims.

3. Data and Estimation Issues

The National Longitudinal Survey of Youth 1979 (NLSY79) consists of a sample of American men and women born in the late 1950's and early 1960's that was nationally representative as of 1979. From 1988 to 2000 the NLSY79 asked a unique series of questions about on-the-job injury or illness, including information about what month and year it occurred, whether (and how many) days of work were missed, whether the worker had applied for Workers' Compensation, and whether the worker received these benefits. The sample used in this analysis is similar to previous work using these questions, and excludes individuals who were in the military, farmers, or self employed between 1987 and 2000.

Much of the literature on the incentive effects of workers' compensation estimates a probit equation:

$$pr(benefits_{it}) = \Phi(X_{it}\beta + K_{it}\delta + \varepsilon_{it}) \quad (1)$$

where $benefits_{it}$ is an indicator variable equal to one if the individual receives WC benefits, and 0 otherwise; X_{it} is a vector of control variables; and K_{it} is the key variable or variables of interest (which is separated from X_{it} only for expositional emphasis). There are two notable drawbacks to estimating this equation that usually arise as a result of the data source. Union members have been shown to work in more hazardous conditions and are more likely to suffer an injury or illness caused by a job hazard (Worrall and Butler 1983), which could lead to higher rates of workers' compensation applications. Others have argued that unions can effectively reduce workplace hazards by negotiating safer work environments (Campolieti 2005), which could lead to fewer workers' compensation applications. In either case, restricting the sample to injured workers should remove the bias in the union effect that would result from working under more (or less) hazardous conditions.

Second, without the application decision explicitly documented separately from the receipt of benefits, the researcher cannot differentiate between the effect a variable has on the *decision to apply* for WC and *whether the individual received benefits* once an application has been filed. With the availability of this information in the NLSY79, we can separate these two effects by first estimating:

$$pr(apply_{it} \mid injured_{it} = 1) = \Phi(X_{it}\beta + K_{it}\delta + \varepsilon_{it}) \quad (2)$$

where $apply_{it}$ is an indicator variable equal to one if the individual applied for WC, and $injured_{it}$ is an indicator variable equal to 1 if the individual reported suffering an injury at work. Then estimating:

$$pr(benefits_{it} \mid apply_{it} = 1) = \Phi(X_{it}\beta + K_{it}\delta + \varepsilon_{it}) \quad (3)$$

where $benefits_{it}$ equals one if the individual received WC benefits, and the sample is restricted to only those injured men who apply for WC. Estimating equations (2) and (3) separates whether union membership significantly influences an injured worker's decision to apply for WC from, conditional on applying, whether being in a union can influence the probability of receiving WC benefits.

4. Empirical Results

Estimating equation (1) for both injured *and* uninjured workers is comparable to Hirsch et al. (1997), and provides a starting point for comparing the results from estimating equations (1) – (3) for various sample restrictions.[1] Like Hirsch, et al. (1997), estimating the unconditional probability of receiving WC benefits using a sample of all workers (first row, column 1) results in a significant positive relationship between union membership and the receipt of benefits. In addition, the marginal effect of union membership on the unconditional receipt of WC benefits, 0.0056, is similar to the 0.0062 – 0.0067 marginal effects Hirsch et al. (1997) found. Union membership is also significantly positively related to the probability of applying for WC (first row, column 2), and the marginal effect (0.014) is about 2.5 times as large as the unconditional effect on receiving benefits.

The relationship between union membership and the decision to apply for WC increases from 0.014 to 0.096 once the sample is restricted to injured workers. This is the ideal specification for determining the impact of union membership on the decision to apply for WC. Estimated at the mean application rate of 0.5912 for non-union workers, the marginal effect implies that union workers are 17% more likely to apply than nonunion workers.

Conditional on applying for WC, there is a negative relationship between union membership and the receipt of benefits. While this relationship is not statistically significant, it is consistently negative across a variety of sample restrictions[2] suggesting that unions decrease the likelihood of receipt conditional on applying.

5. Conclusions

In general, these results suggest that previous research that has estimated WC decisions are missing an important distinction if they cannot separate out the application decision from the receipt of benefits, and if they cannot separate out the injured from the uninjured. The marginal effect of union membership on the probability that the injured worker applies for WC is two to three times as large as the marginal effect of union membership on the unconditional probability

[1] The results of estimating equations (1)-(3) are presented in table 1, where only the coefficients on union status are reported. Full results are available from the author upon request.

[2] Equation (3) was estimated separately for injured workers who missed work due to injury, with a high school diploma or less, with more than a high school diploma, in blue collar occupations, and in white collar occupations.

that the injured worker receives benefits. However, there appears to be a negative impact of union membership on the receipt of WC benefits conditional on applying. Because unions inform workers about WC and protect workers from employee pressures, it is more likely they would apply for WC benefits where the injury is more ambiguous or difficult to authenticate relative to non union workers. This would help explain the apparent negative impact of union membership on the receipt of WC benefits conditional on applying.

References

Biddle, Jeff, 2001, "Do High Claim-Denial Rates Discourage Claiming? Evidence from Workers Compensation Insurance," *Journal of Risk and Insurance*, Vol. 68, No. 4 (December), pp. 631-658.

Budd, John W., 2007, "The Effect of Unions on Employee Benefits and Non-Wage Compensation: Monopoly Power, Collective Voice, and Facilitation," in *What Do Unions Do? A Twenty-Year Perspective*, James T. Bennett and Bruce E. Kaufman, eds., pp. 160-191. New Brunswick, New Jersey: Transaction Publishers.

Campolieti, Michele, 2005, "Unions and the Duration of Workers' Compensation Claims," *Industrial Relations*, Vol. 44, No. 4 (November), pp.625-653.

Gustman, Alan L., and Thomas L. Steinmeier, 2005, "Imperfect Knowledge of Social Security and Pensions," *Industrial Relations*, Vol. 44, No. 2 (April) pp. 373-397.

Hirsch, Barry T., David A. Macpherson, and J. Michael DuMond, 1997, "Workers' Compensation Recipiency in Union and Nonunion Workplaces," *Industrial and Labor Relations Review*, Vol. 50, No. 2 (January), pp. 213-236.

Kramer, Amit, 2008, "Unions as Facilitators of Employment Rights: An Analysis of Individuals' Awareness of Parental Leave in the National Longtudinal Survey of Youth," *Industrial Relations*, Vol. 47, No. 4 (October), pp. 651-658.

Lackdawalla Darius N., Robert T. Reville, and Seth A. Seabury, 2007, "How Does Health Insurance Affect Workers' Compensation Filing?" *Economic Inquiry*, Vol. 45, No. 2 (April), pp. 286-303.

Meyer, Bruce D., 2002, "Unemployment and Workers' Compensation Programmes: Rationale, Design, Labor Supply and Income Support," *Fiscal Studies*, Vol. 23, No. 1 (March), pp. 1-49.

Worrall, John D., and Richard J. Butler, 1983, "Health Conditions and Job Hazards: union and Nonunion Jobs," *Journal of Labor Research*, Vol. 4, No. 4 (Fall), pp. 339-347.

Table 1: Role of union membership on WC application and benefits decisions

	Dependent Variable		
	pr(benefits)	pr(apply)	pr(benefits | apply=1)
Sample:	marginal impact of union membership variable:		
All Workers	0.006 ***	0.014 ***	-0.017
	(0.001)	(0.002)	(0.035)
NT	[50,902]	[50,902]	[1460]
Injured Workers Only	0.037	0.096 **	-0.017
	(0.027)	(0.027)	(0.035)
NT	[2389]	[2389]	[1460]

Notes: All estimates include controls for year, industry, occupation, tenure, firm size, education, race, age, region of residence, marital status, existing health limitation, log earnings, and log non-labor income. Standard errors in parentheses. Sample sizes in brackets.

* Significant at 10%; ** significant at 5%; *** significant at 1%