



Center for Health and Safety in the Workplace

Workers' Compensation Experience Rating and Return to Work

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How do we help injured workers get back to work?

- **Much research on the effects of financial incentives and workplace safety focuses on prevention**
- **We are also interested in minimizing the adverse consequences of injuries when they occur**
- **What is the role of financial incentives in promoting better outcomes for injured workers?**
 - **Do they lead to faster and sustained return to work?**

Our approach

- **Use linked data on workers' compensation claims and employment**
- **Estimate the relationship between financial incentives and return to the at-injury employer**
- **Financial incentives measured through experience rating**
 - **Experience rating is not directly observed in our data**
 - **Compare self-insured and insured firms**

Financial incentives, experience rating and self-insurance

- **Workers' compensation provides employers with incentives to minimize time out of work**
 - **Early return is associated with lower claim costs**
- **Insurance mutes these incentives**
 - **Restored by experience rating**
 - **Most insured firms are imperfectly experience rated**
- **Self-insured firms bear the full cost of their claims**
 - **Strongest financial incentives to bring people back to work**
 - ***Assume that financial incentives the only difference***

Data

- **Merged 3 administrative databases in California**
 - **Earnings and workers' compensation claims**
- **Outcome measures**
 - **Employment overall and for at-injury firm 1 to 5 years after the quarter of injury**
- **Other characteristics**
 - **Age, tenure, pre-injury earnings, occupation, dispute, type and severity of injury, industry and **firm size** for at-injury employer**
- **Exclude public employers**

Measuring self-insurance

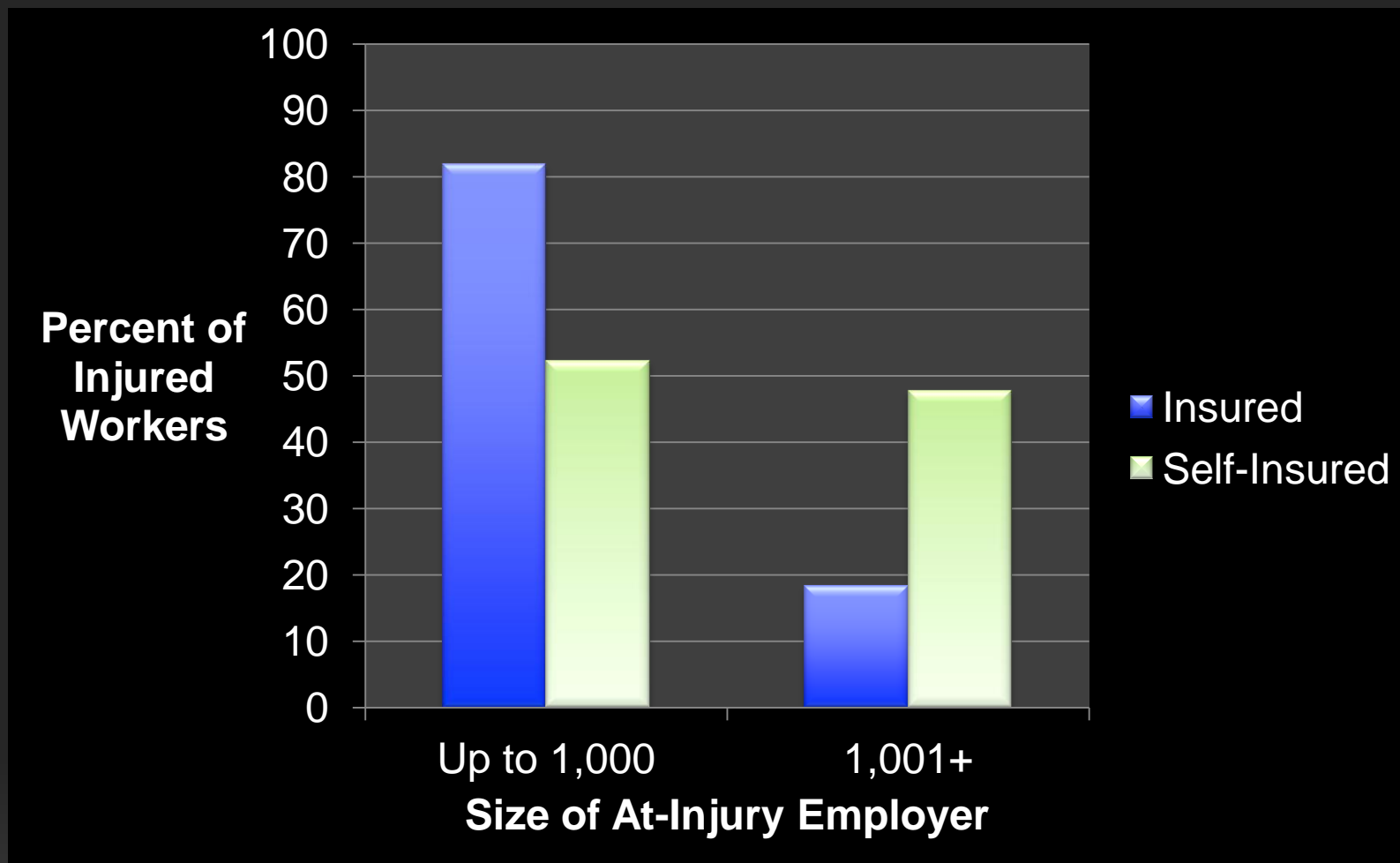
- **Not directly observed in the data**
- **Workers' compensation claims from 2 data sources**
 - **WCIRB – insured**
 - **DEU – insured + self-insured**
- **We denote a firm as self-insured if they fail to match**
 - **Introduces measurement error into the key independent variable**
 - **Attenuation bias towards no effect**

Statistical analysis

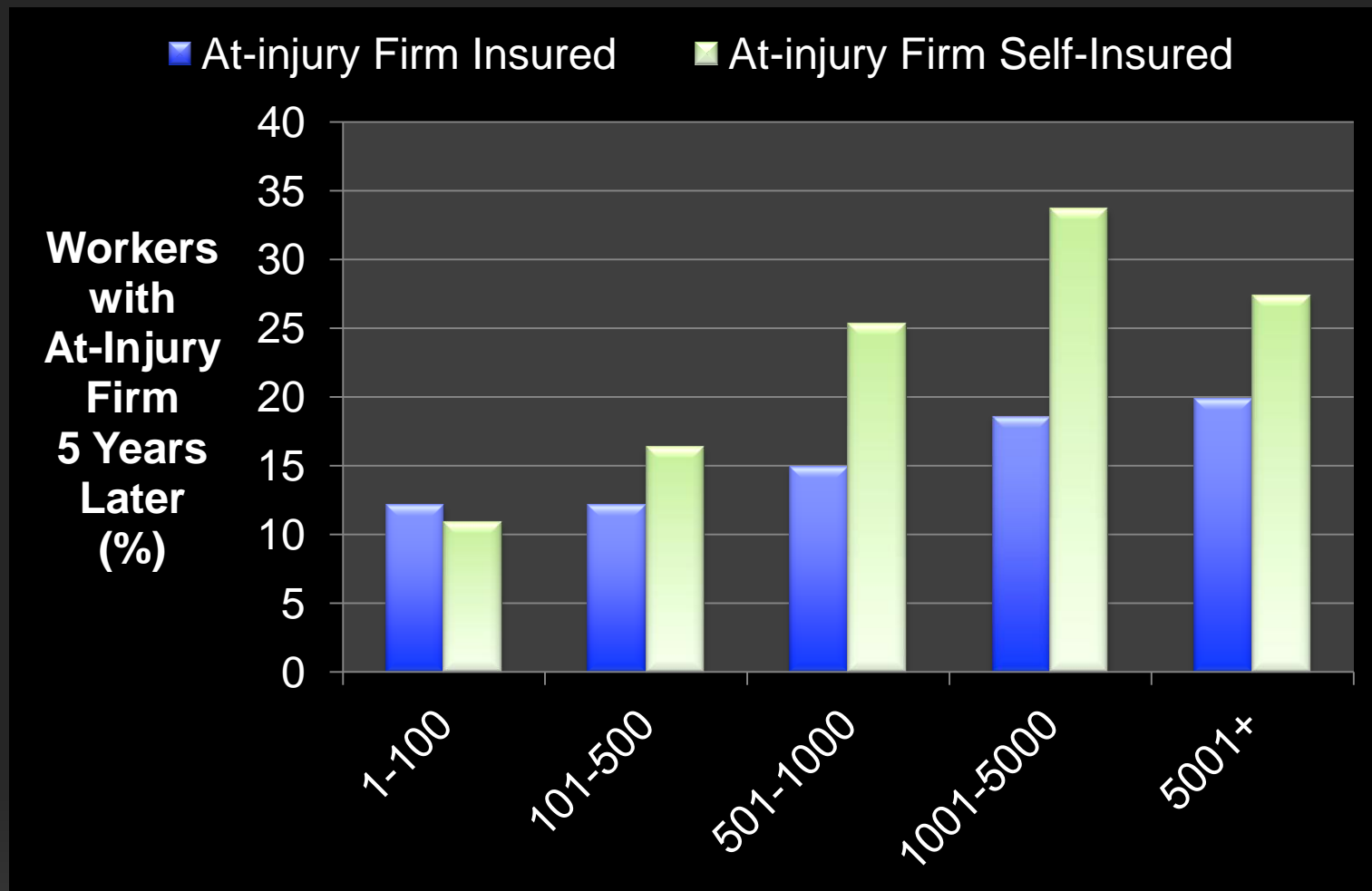
- **Estimate the effect of self-insurance on return to work using multivariate regression**
 - **Control for other confounders to isolate the effect of financial incentives**
- **Positive effect of self-insurance on return to work implies financial incentives improve outcomes for injured workers**
- **Use robustness checks to test for confounding effects**

Results

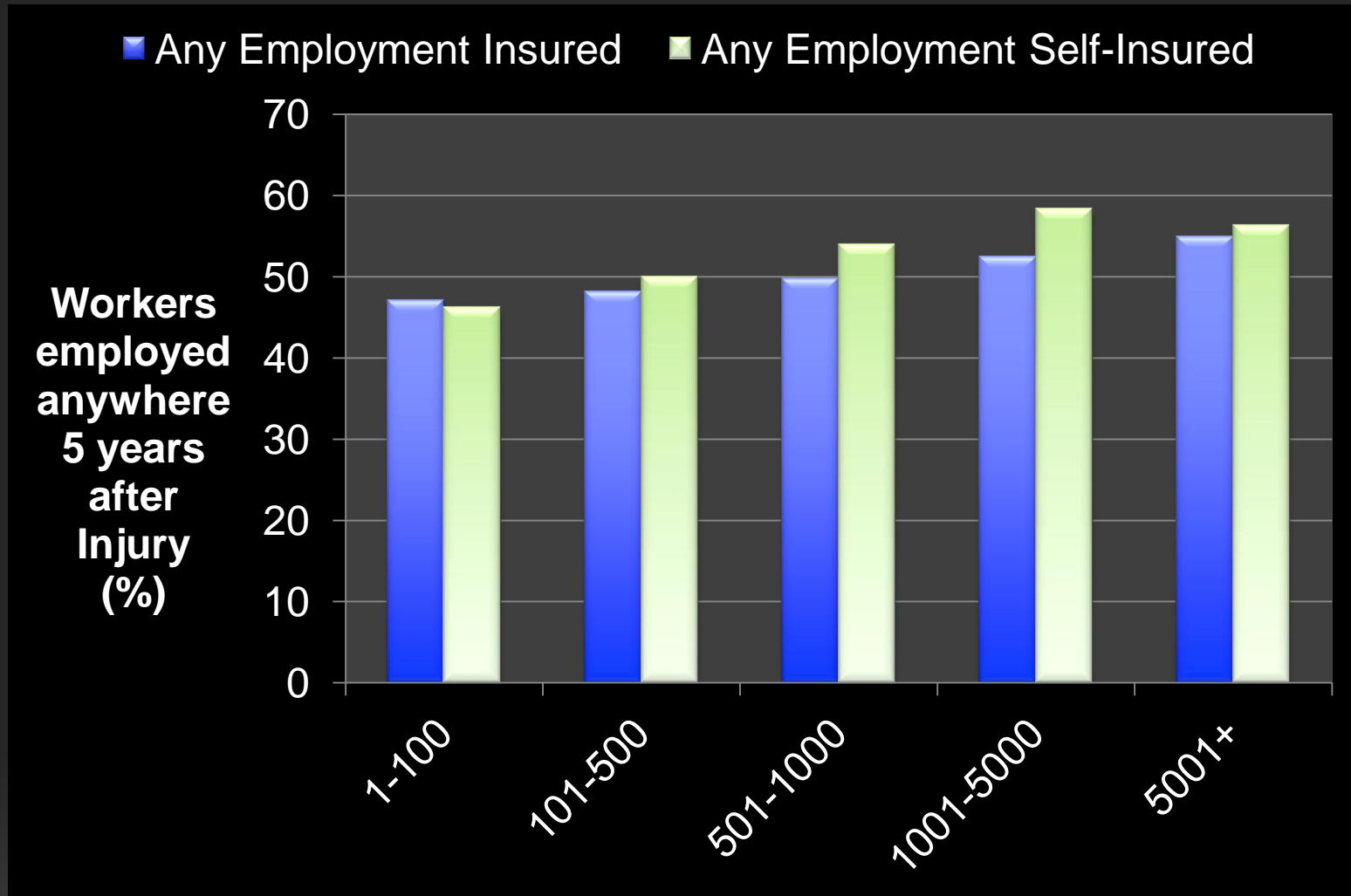
Self-insurance measure tracks firm size



Self-insured firms are much more likely to retain workers after an injury



But overall employment is similar at self-insured and insured firms



Regression results confirm the relationship between self-insurance and return to work

Regression Estimates of the Association between Self-Insurance and Post-Injury Employment by the Size of the At-Injury Firm				
	1 Year After-Injury		5 Years After-Injury	
	Estimate (Standard Error)	Percent Difference	Estimate (Standard Error)	Percent Difference
<u>Number of Employees</u>				
101-500	0.007	1.6%	0.010+	1.0%
	(0.007)		(0.006)	
501-1,000	0.029*	4.9%	0.032**	3.2%
	(0.012)		(0.011)	
1,001-5,000	0.047**	6.9%	0.035*	3.5%
	(0.012)		(0.015)	
5,001+	0.024	3.8%	-0.003	-0.3%
	(0.035)		(0.044)	

Summary of findings

- **Self-insured firms are “perfectly” experience rated**
 - Expect them to have stronger incentives to bring injured workers back sooner
- **We find that self-insured firms are up to 7% more likely to retain injured workers 1 year after injury**
 - 3-4% more likely 5 years after injury
 - Robust to other covariates
 - No evidence of effects on overall labor market participation

Implications

- **Self insurance is associated with better return to work**
 - **Suggests that financial incentives do matter**
 - **Though we can't entirely rule out selection bias**
- **If causal, the use of mandatory experience rating increases incentives to accommodate injured workers**
- **Future work should explore the mechanisms through which these incentives drive improved employment outcomes**
 - **Need better measures of experience rating**
 - **And better measures of employer behavior**



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