

Citation

Foley, M., Fan, J., Rauser, E., & Silverstein, B. (2012). The impact of regulatory enforcement and consultation visits on workers' compensation claims incidence rates and costs, 1999–2008. *American Journal of Industrial Medicine*, 55(11), 976-990.

Highlights

- The study's objective was to determine the impact of inspections and consultations by Washington State's Department of Occupational Safety and Health (DOSH) on workers' compensation claim rates and their associated costs.
- The study used regression models to compare changes in the claim rates and claim costs across years for firms that had a DOSH inspection or consultation with those that did not.
- The study found that DOSH activities were associated with statistically significant reductions in workers' compensation claim rates. The study also found reductions in claims' costs in firms with DOSH activities, but this was not statistically significant.
- The quality of the causal evidence presented in this study is low. This means we do not have confidence that the effects estimated in this study are attributable to DOSH activities.

OSHA Enforcement Activities and Outcomes

The study examined the effect of having a DOSH inspection in a given year on the change in the compensation injury rate between the specified year and the subsequent year. The study also examined the effect of DOSH consultations, wherein firms volunteered to be visited and could have received feedback on the safety of their workplaces. In addition, the authors examined the relationship between each type of activity and the costs of workers' compensation claims.

Features of the Study

The study used a regression model to compare the difference in the injury rates and claims costs for the baseline year (year of inspection) and subsequent year for firms that received a DOSH inspection or consultation with those that received neither an inspection nor a consultation in the baseline year. Models included controls for outcomes in the two years before the baseline period, firm size, and whether an employer's industry was classified as having fixed-location (for example, manufacturing) or variable-location worksites (for example, construction).

The authors used workers' compensation data from the Washington State Department of Labor and Industries and DOSH activity data from the Washington Industrial Safety and Health Act Information Network. The resulting data set covered the period 1998 to 2008 and contained information on 86,314 state fund workers' compensation account-year observations.

Findings

- In both fixed- and variable-site industries and across all study years, employers that had DOSH enforcement inspections had greater decreases (3.1 to 4.3 percentage points) in compensable injury rates than employers with no DOSH activity; these differences were statistically significant.
- DOSH consultation visits were associated with a statistically significant reduction in compensable injury rates for variable-site workplaces (8.5 percentage points) but had no statistically significant effect in fixed-site workplaces.

Considerations for Interpreting the Findings

In this study, the estimated differences in outcomes between firms being compared could reflect underlying differences in safety levels or other factors and not the effect of DOSH activities. For example, complaints of workplace hazards trigger many enforcement inspections. Therefore, the firms that received inspections could have had more underlying workplace hazards, on average, than firms that DOSH did not inspect. Similarly, firms that volunteered to undergo consultation visits likely differ from those that did not volunteer for those visits, even conditional on previous injury rates. For instance, firms with more attentive management might be more likely to both volunteer for consultation visits and mitigate workplace hazards even in the absence of the consultation. Therefore, it is not possible to determine the causal effect of the consultation visits or inspections using the approach in this study.

Causal Evidence Rating

The quality of the causal evidence presented in this study is low. This means we do not have confidence that the effects estimated in this study are attributable to DOSH activities. To provide more convincing causal evidence that meets CLEAR criteria, the study could have examined only firms that received inspections or consultations at random. This would give us confidence that the differences in outcomes between the firms that received these activities and those that did not was attributable to the inspection and not underlying safety or other factors at the firms.