

Citation

Bradbury, J. (2006). Regulatory federalism and workplace safety: Evidence from OSHA enforcement, 1981–1995. *Journal of Regulatory Economics*, 29(2), 211–224.

Highlights

- The study's objective was to determine if workplace fatalities were lower in states with federal or state enforcement of Occupational Safety & Health Administration (OSHA) regulations.
- The study used a regression model to compare changes over time in the workplace fatalities of states with federal or state enforcement of OSHA regulations.
- The study found that states with self-enforcement of OSHA regulations had lower fatality rates relative to states with federal OSHA enforcement; this difference was statistically significant.
- The quality of evidence presented in this study is low. This means we are not confident that the differences in workplace fatalities between states with self-enforcement and those with federal enforcement of OSHA regulations are attributable to the method of enforcement.

OSHA Enforcement Activities and Outcomes

States are allowed to control their own OSHA operations as long as they demonstrate to federal OSHA that they can operate at least as effectively as the federal agency, according to state-specific standards. OSHA monitors state programs and provides up to 50 percent of their operating costs. The outcome of primary interest to this study was workplace fatality rates.

Features of the Study

The study used a regression model with random effects to compare changes in the workplace fatalities of states with state enforcement and states with federal enforcement of OSHA regulations over time. The model used state characteristics, such as per capita income, population, and political ideology to perform a selection correction.

The analysis used mortality data from the National Institute for Occupational Safety and Health's National Traumatic Occupational Fatalities surveillance system for the 50 states from 1981 to 1995.

Findings

- The study found that states with self-enforcement of OSHA regulations experienced a statistically significant decline in fatality rates relative to states with federal OSHA enforcement.
- The mortality reduction was estimated to be from 27 to 36 percent.

Considerations for Interpreting the Findings

The study noted that states with self-enforcement of OSHA regulations had higher levels of workplace mortality rates than states with federal OSHA enforcement over the entire period examined. In addition, the authors did not demonstrate that the trends in injury rates for the two groups of states were similar. Both suggest that even if the two groups of states experienced OSHA administration the same way, they might have experienced different changes in fatality rates over time, even accounting for the factors used in the selection correction. Therefore, we cannot be confident that states with federal enforcement are a valid comparison group for states that self-enforce OSHA regulations.

Causal Evidence Rating

The quality of evidence presented in this study is low. This means we are not confident that the differences in workplace fatalities between states with self-enforcement and those with federal enforcement of OSHA regulations are attributable solely to the method of enforcement. To provide more convincing causal evidence that meets CLEAR criteria, the study could have demonstrated that states with and without self-enforcement of OSHA had fatality rates that were changing similarly before the states began to enforce OSHA regulations on their own. This would give us confidence that any differences in the rate of change in fatalities between the two groups of states after this change were caused by the differences in OSHA administration, and not some other factor.