

OSHA Inspections Should Be Welcome

Results from a Natural Field Experiment in California

OSHA and Cal/OSHA inspections are contentious and have been even since the agency was created in 1971. While some criticize the agency for being too **slow to regulate** important safety hazards, others have charged OSHA and its corresponding state agencies with being too aggressive, undermining economic growth and **killing jobs**. OSHA conducts 40,000 inspections per year at America's 7.5 million workplaces, implying that on average the agency and its state counterparts inspect work sites **less than once a century**. Even large sites with a history of injuries are inspected only once every few years or even once a decade.

For companies with strong internal occupational safety and health (OSH) auditing programs, OSHA inspections might seem a formality that risk uncovering, at most, nitpicky deviations from the thousands of pages of safety regulations. For those with poor safety practices, OSHA inspections can result in penalties and bad press that risk impugning the company's reputation. Both of these accounts suggest that for managers the fewer OSHA inspections, the better.

The results of our research published in *Science* calls for a much more welcoming attitude. We found that companies realized substantial reductions in injuries and workers' compensation costs following inspections conducted by Cal/OSHA, California's health and safety regulator.

Specifically, random Cal/OSHA inspections prompted a 9.4% reduction in the number of injuries associated with workers' compensation claims, and a 26% reduction in the medical expenses and wage replacement paid from those claims.

The 26% cost reduction amounts to annual savings of roughly \$20,000 to \$40,000 per year in direct and indirect costs. We find that the safety improvements prompted by inspections endure for at least 5 years, which means that the annual savings from a single inspection may well

accumulate to savings of \$100,000 to \$200,000 over the 5-year period—and these figures do not even account for the pain and suffering that are avoided. These calculations are based on annual workers' compensation costs for medical care and replacing wages averaging just more than \$25,000 for workplaces in our sample, and assuming (based on others' research) that indirect costs of injuries—including production down time, training replacement workers, repairing damaged equipment and completing paperwork—are typically 2 to 5 times the direct cost.

Beyond revealing inspections' safety benefits, our research also found no evidence that workplace inspections worsened business outcomes. We found no discernible reduction in sales or credit ratings, and no evidence that inspections impeded companies' ability to stay in business. Nor did we find any effects of inspections on average wages, total payroll, or employment.

Two factors in our study design are critical to our ability to conclude that inspections caused companies to engage in activities that improved workplace safety, but did not worsen business outcomes. We focused on the inspections that Cal/OSHA conducted at random in dangerous industries, so our results are akin to those of an actual randomized experiment—the most convincing type of evidence when evaluating a program. Then, we compared the safety records of the randomly inspected factories (before and after the inspection) to those of similar companies that were not inspected over the same time period. ☉

REFERENCE

Levine, D.I., Toffel, M.W. & Johnson, M.S. (2012). Randomized government safety inspections reduce worker injuries with no detectable job loss. *Science*, 336(6083), 907–911.

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The Compass

VOLUME 14 • NUMBER 1

Learning Through Operational Experience

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Think about the headlines for recent catastrophic incidents at the workplace. Chances are you watched an interview or read an article in which one or more people said they saw it coming or knew it was just a matter of time.

What one person recognizes as a serious hazard can look less serious or like no hazard to someone else. Near hits and general observations are often not captured. Many smart,

Early detection of trends often paves the way for efficient, cost-effective correction and better allocation of scarce resources.

well-intentioned people have been caught completely off guard by incidents they never thought would happen.

Differences in hazard perception also affect how they are addressed. Actions will not be taken until hazards are understood. And if actions are not being taken to mitigate hazards, it really is just a matter of time until something bad happens.

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