

Research Description

The purpose of any regulation is to reduce risk. Regulations are typically carried out by independent agencies. These agencies rarely consider how their policies that promote compliance with their standards might drive away resources from compliance with standards of other agencies. The goal of this research project is to investigate how competing regulations might affect the firm's overall compliance. In the U.S., the Environmental Protection Agency (EPA) and the Occupational and Health Administration (OSHA) are two prominent regulatory agencies that have the same goal. The mission of the EPA is to protect human and environmental health by setting national standards. Whereas, the mission for OSHA is to "assure safe and healthy working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance." Given this overlap, it is expected that different policies intended for different outcomes might also overlap. When a firm faces multiple regulatory demands, actions by one agency might affect not only its performance in the agency's domain but also its performance in other areas (Harberger, 1974; Graham and Wiener, 1995).

According to Injury Facts® and the 2019 Year-End Data for Workplace Accidents, Injuries, and Deaths published by the Bureau of Labor Statistics (BLS), preventable workplace deaths totaled 4,414 in 2017, 5,250 in 2018, the fifth year in a row this number has increased. Since the peak of the recession in 2009, preventable work-related deaths have increased by 17.5%. Every 7 seconds, a worker gets injured on the job.

Due to the increasing frequency of accidents in the workplace, we cannot underestimate the importance of worker safety. Workplace injuries and illnesses are estimated at \$250 billion per year (Leigh, 2011). According to the National Safety Council, the total cost of work injuries in 2018 was \$170.8 billion. Worker safety is essential for the company's sustainable development. It determines the company's reputation, production capacity, and other aspects, which further affects the company's expansion and economic benefits. In terms of human resources, property, financial, and productivity, accidents in the workplace have caused considerable social and economic damage cost on society at the macroeconomic level and the company's profit and development at the microeconomic level. This makes worker safety a priority for firms throughout the U.S.

Environmental performance has become an urgent priority for firms. Discussions about climate change and its effects on society have made environmental performance an urgent matter to companies throughout the globe. Pollution reduction policies are an integral part of U.S. environmental policy. Research shows that firms have gone through costly production process changes to reduce pollution. The main reasons for these expensive investments are the deterrence of lobbying by environmental groups for tighter regulatory standards, the attraction of "green consumers" willing to pay more for goods produced in an environmentally friendly way, and the avoidance of future environmental liability (Arora and Gangopadhyay, 1995; Maxwell et al., 2000; Innes, 2006).

Compliance with environmental policies creates a better working environment, which could improve worker's health conditions and willingness to work that affects their productivity and worker safety. At the same time, worker safety compliance may create new constraints as well as incentives that affect the production process, which include reducing pollution. However, the firm may substitute compliance activity for one regulation if the other regulation is more stringent. In contrast, the firm's compliance in both regulations will increase private costs of compliance and decrease the social cost of environmental and worker safety regulation if there are complementarities in compliance. This would raise the expectations of policymakers, raising environmental and worker safety standards.

To my knowledge, there is no specific theory to explain links or spillovers between worker safety and environmental regulations, although there are empirical studies on both of these phenomena in isolation. There has been little empirical evidence regarding the direction, magnitude, and consequences of such regulatory "spillovers." (Johnson, 2018) The primary goal of this research project is to explore the impact of joint policy enforcement on worker safety by investigating how firms trade off distinct regulatory demands. I focus on analyzing how stricter environmental regulation affects firms' compliance with worker safety standards. For example, environmental regulation, as expected and intended, can reduce air pollution. But, compliance with environmental policies can have an indirect effect on worker safety. An important research question arises, how will environmental policies, through compliance, affect worker safety? If it has an impact, what are its direction and magnitude? My theoretical framework highlights that there is a link between environmental and worker safety compliance. These regulatory "spillovers" should be included to assess the effectiveness of worker safety and environmental regulations.

I plan to investigate this relationship empirically by studying how stricter environmental regulation affects firms' worker safety regulatory compliance and performance. At the same time, how stricter worker safety regulations affect the firm's environmental performance.

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