

The Cost of Regulatory Compliance in the United States

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Regulation is frequently described as one of the drivers of falling entry, rising industry concentration, and underinvestment in the United States and in other countries. At the core of this proposition lies the question of whether government regulation burdens small and large firms differently and acts as an obstacle to free entry and firm growth. The limited amount of data on firm-level incidence of regulatory compliance costs has made researching this question difficult. Our study combines data on occupational tasks and firms' wage spending and finds that the average US firm spends between 1.3 and 3.3 percent of its total wage bill on regulatory compliance. Furthermore, this percentage is highest for firms with around 500 employees.

We began with measuring the cost of regulatory compliance for firms by focusing on the costs of labor and equipment. According to 2006 survey estimates from

the Securities Industry Association (which became the Securities Industry and Financial Markets Association in 2006 after a merger with the Bond Market Association), 93.9 percent of compliance costs in the US financial sector are labor-related and 3.3 percent are equipment-related. Survey estimates in 2014 from the National Association of Manufacturers report that 68.4 percent of compliance costs in the US manufacturing sector are labor-related and 13.4 percent equipment-related. Our measure is made possible by merging occupational task data from O*NET (version 23.0) with the Occupational Employment and Wage Statistics data from the Bureau of Labor Statistics, a large representative survey covering about 1.2 million establishments from all industries for 2002–2014.

We measured to what degree labor tasks are related to regulation using a combination of keyword matching, manual assignment, and natural-language processing



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methods. Next, we measured the degree to which occupations are related to regulation by determining which tasks are most common in each occupation. Finally, we obtained our key measure of regulation intensity for each firm by determining the percentage that each firm spends on regulation-related tasks; we refer to this measure as RegIndex.

Using a broad definition of regulation-related tasks, which includes tax compliance, an average firm spends 3.33 percent of its total labor costs on performing regulation-related tasks per year. Using our most conservative measure, the average is 1.34 percent. Our research shows that regulatory compliance costs of US businesses have grown by about 1 percent each year from 2002 to 2014 in real terms.

Our research also analyzes firms' equipment expenditure related to compliance. The inclusion of these expenditures increases compliance costs by about 20 percent. The total wage bill devoted to regulatory compliance workers in 2014 was between \$79 billion and \$239 billion, depending on the stringency of the regulatory compliance measure, and up to \$289 billion when equipment is included. Our research uses its measure of compliance costs to study how regulatory costs change with respect to firms' size and investigates the presence of increasing or decreasing returns to scale in compliance. Compliance costs that feature either type of returns to scale (where size is measured by total employment) may distort incentives for producers, induce resource misallocation, and constrain productivity growth.

On the one hand, when regulatory costs increase with size, it incentivizes firms to remain small, below the efficient scale of production. This may arise, for instance, from government policies designed to support small businesses through lighter regulation or more relaxed enforcement. On the other hand, regulatory costs that decrease with scale favor larger players over smaller competitors, quashing entry and fostering concentration. This may arise naturally from economies of scale in compliance due to the presence of fixed costs, for example, or it may derive from regulatory capture and special deals for large players.

Our research finds an inverted-U relation between RegIndex and firm size. Firms with fewer than 500 employees experience increasing compliance costs as share of total wages, with the percentage of labor spending on

compliance sharply increasing with employment. For firms with more than 500 employees, economies of scale kick in, and the percentage of labor spending on compliance progressively decreases with employment. On average, RegIndex for midsize firms is about 47 percent greater than that of the smallest firms and 18 percent greater than that of the largest firms. Furthermore, our research analyzes data from 14 million job postings in the Burning Glass Technologies (now Lightcast after a merger with Emsi) database and finds that for job postings of the same occupation, midsize firms require more regulatory compliance skills in their descriptions than small and large firms do.

Our research investigates three possible mechanisms behind the inverted-U shape between RegIndex and firm size: fixed costs in compliance, size-dependent regulatory requirements, and differential enforcement for large and small firms. Our results suggest that fixed costs and size-dependent regulatory requirements explain the inverted-U shape and that differential enforcement does not. Specifically, in terms of fixed costs, our results reveal that large firms tend to hire more specialists to comply with regulations than midsize and small firms. This evidence is consistent with centralization of regulatory compliance: large firms find it economic to consolidate their compliance efforts in the hands of specialized employees to save costs. Moreover, our results show that small businesses are shielded from many regulatory requirements due to a practice called regulatory tiering.

Our work confines its scope to the costs of regulation without addressing the benefits. Furthermore, our study measures compliance costs only in terms of wages and equipment; this omits other types of compliance costs—for example, capital structures (such as reinforced concrete walls), pumping or draining infrastructure for mine water, and so on—and it omits foregone investment opportunities and profits due to regulatory risk.

Also, our study does not separately capture the fixed costs of setting up compliance systems, such as resources spent learning regulations and establishing relationships with regulators, which have been well-documented and may create substantial barriers.

Additionally, our measure of compliance does not include costs that are borne by firms through outsourcing

(e.g., external legal, compliance, and accounting services). However, industry surveys show that spending on outside advisers accounts for only 2.8 percent and 8.7 percent of total compliance costs for the financial sector and manufacturing sector, respectively.

NOTE

This research brief is based on Francesco Trebbi, Miao Ben Zhang, and Michael Simkovic, “The Cost of Regulatory Compliance in the United States,” CESifo Working Paper no. 10589, July 2023.



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