Research

Regulatory Impact on Small Business Establishments

BEN GITIS, SAM BATKINS | APRIL 24, 2015

Executive Summary

American Action Forum (AAF) research examines the private sector implications of regulatory cost burdens. In particular, we analyze the cumulative effect of regulations on the number of businesses for a range of establishment sizes and find that regulatory costs have a highly regressive impact on private industries. Specifically, with a 10 percent increase in cumulative regulatory costs, there is a 5 to 6 percent fall in the number of businesses with fewer than 20 workers. That translates to a loss of over 400 small businesses in an industry. Meanwhile, those same regulations are associated with a 2 to 3 percent increase in businesses with 500 or more workers, indicating that those larger businesses are more capable of absorbing regulatory cost burdens. Small businesses will have a more difficult time complying with the cumulative effect of regulations, which could result in lost jobs.

Introduction

The interaction between regulation and private industries is highly complex. Since 2008, the federal government has imposed $733.9 billion in regulatory costs. AAF research indicates that the cumulative cost of all regulatory compliance devastates small businesses. Specifically, for every 10 percent increase in regulatory costs in an industry, the number of small and medium-size businesses in that industry falls 3 to 6 percent. The number of large businesses, meanwhile, grows 2 to 3 percent. In sum, we find that regulations cumulatively have a highly regressive effect, substantially reducing the smallest businesses and growing the largest.

Methodology

In a series of previous papers, AAF closely examined the cumulative impact of new regulations on private industries. In our last of these papers, for instance, we found statistically significant evidence that every $1 billion in new regulatory costs is associated with a 3.6 percent decline in industry-level employment.

In this paper, we study the same industries and regulations, but aim to dissect the impact of cumulative regulatory cost burdens by business size. Specifically, we estimate the relationship between cumulative regulatory costs in an industry and the number of business establishments with 1 to 4 workers, 5 to 9 workers, 10 to 19 workers, 20 to 49 workers, 50 to 99 workers, 100 to 249 workers, 250 to 499 workers, 500 to 999 workers, and those with 1,000 or more workers.

Data

To examine the effect of new regulatory costs, for each business size category we estimate the change in the number of establishments in an industry associated with an increase in the affected industry's regulatory cost burden. AAF employs industry-level data for each business size category from the Census Bureau's 2012 County Business Patterns and uses average number of establishments in the industries[1] in each year from 2003 to 2012.[2] The regulatory cost estimate for each industry in a year is the sum of the projected annual costs of all new regulations an industry faced from the beginning of the time to the given year. We also adjust regulatory cost projections for inflation to 2012 dollars.

Empirical Model

Using these data, AAF performs a fixed effects cubic regression to estimate the effect of an increase in regulatory costs in an industry on the number of business establishments by business size. Both the establishment and the cost terms are transformed into logarithmic variables. The cubic model with logarithmic variables allows us to address a nonlinear relationship between industry establishments and cumulative regulatory costs. In addition, we pool the business establishment data for all sizes under one business variable and use binary variables that represent each business size category. We then interact those categorical binary variables with the cost terms to estimate the association between cumulative regulatory costs and number of establishments in each business size category. For more information on our model and its exact specifications, see the appendix.

Findings

We find that regulatory costs are cumulatively associated with statistically significant changes in the number of industry establishments for each business size.

Table 1: Results	
Business Size	**Average Marginal Effect**[†]
1 to 4	-5.0%***
5 to 9	-5.5%**
10 to 19	-5.8%*
20 to 49	-4.0%***
50 to 99	-3.6%***
100 to 249	-2.3%**
250 to 499	-0.7%***
500 to 999	1.7%***
1000 or more	3.4%**
*Jointly Significant at the 10% Level	
**Jointly Significant at the 5% Level	
***Jointly Significant at the 1% Level	
[†]Average marginal effect of a 10 percent increase in cumulative regulatory cost burden on number of business establishments	