BREAKING DOWN BARRIERS TO OPPORTUNITY #1

Incenting an Entrepreneurial Society: A Regulatory Perspective

Wayne Winegarden



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April 2019

Pacific Research Institute 101 Montgomery Street, Suite 1300 San Francisco, CA 94104 Tel: 415-989-0833 Fax: 415-989-2411 www.pacificresearch.org

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Executive Summary

According to a report on the small business economy commissioned by the Small Business Administration, the entrepreneurial sector has been declining as a share of the U.S. economy for many years.¹ This decline is an unhealthy sign. Small businesses have traditionally created the majority of new jobs and developed the innovations that have propelled the national economy. They are also the cornerstones of local communities and create important pathways to the middle class for many individuals. Reinvigorating the entrepreneurial spirit should be a top policy priority as a result.

The regulatory burden in the U.S. is, in part, responsible for the relative decline in the entrepreneurial sector. A study by Crain and Crain (2014) estimates that as of 2012, the regulatory environment imposed over \$2 trillion in costs, and that these costs were more burdensome on small businesses and entrepreneurs than large businesses.² The complex regulatory state also wastes millions of hours of work on low-productivity compliance activities that overwhelms many small businesses because they lack the scale to effectively manage the regulatory costs and red tape. Excessively burdensome labor regulations, like occupational licensing requirements and workers compensation costs, are a large part of this problem.

Excessive labor regulations are also a deterrent to starting a risky entrepreneurial venture. According to the Small Business Administration, only 50 percent of new businesses last more than five years.³ For those businesses that do fail, the owners will often need to regain their financial stability after the bankruptcy, which will often require taking on a full-time job before they can try another business venture. Overly burdensome labor regulations lead to a more rigid labor market, making it more difficult for former entrepreneurs to regain their financial stability or less likely to strike out on their own again once they have. Thus, the less dynamic labor market caused by excessive regulations also contributes to a less dynamic entrepreneurial market.

A large number of studies that have evaluated the connection between a growing regulatory burden and the health of the entrepreneurial sector have concluded that over-zealous regulations are harmful. Dawson and Seater (2013); Coffey, McLaughlin, and Peretto (2016); Brannon and Batkins; Sobel, Clark, and Lee (2007); Bailey and Thomas (2015); and, Crain and Crain (2014) all found that regulations negatively impact the vibrancy of the entrepreneurial sector.

After reviewing these studies, this analysis reviews the relationship of three different measures of the regulatory burden at the federal and state level to determine whether a growing regulatory burden is associated with a less vibrant entrepreneurial sector. All three measures confirm this association.

The first measure uses a common method for measuring the burden from federal regulations – counting up the pages in the *Federal Register*, or the compilation of the proposed and final administrative regulations published daily by the federal government. Examining the size of the *Federal Register* between 1988 and 2014, there were periods when it was growing in length, and periods when it was shrinking. During the three periods when the *Federal Register* was growing, the decline in the entrepreneurial economy's share of payrolls and employment accelerated, and during the two periods when the *Federal Register* was shrinking, the decline generally decelerated.

The second measure adopts an alternative measure of the federal regulatory burden, and also confirms these results. This alternative measure of the regulatory burden, which has been suggested by Simkovic and Zhang, makes the logical association that the industries facing a larger regulatory burden also spend a higher amount on employees whose jobs include navigating, complying with, and shaping regulations (e.g. legal and compliance employees).⁴

Using the Simkovic and Zhang definition of "regulation-related occupations," I estimate the share of employment in the regulatory-related occupations by industry, based on data from the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES), excluding the Professional, Scientific, and Technical Services industry.⁵ The category of professional services was excluded from the analysis because it

includes legal services, and is, consequently, skewed toward regulatory-related occupations by definition. The share of employment in regulatory related occupations is then compared to the share of employment represented by small businesses for each industry. This analysis finds that there is a strong negative relationship between the industries that require more regulatory-related occupations and small businesses' share of employment in that industry.

The third measure examines the impact from labor regulations on the entrepreneurial sector. Specifically, I apply the methodology behind Pacific Research Institute's *Small Business Regulation Index* to rank the states based on how burdensome the labor regulatory environment is. The analysis ranks the states based on seven labor regulatory categories: workers compensation costs, occupational licensing requirements, state minimum wages, right to work laws, This analysis illustrates that those states that impose a less burdensome regulatory environment tended to experience stronger growth in small business payrolls and, to a slightly lesser extent, stronger growth in employment.

mandatory medical benefits, unemployment insurance, and short-term disability regulations.⁶ All regulatory burdens are measured as of 2014, since this is the last year of small business payroll and employment data evaluated. Across the seven labor regulatory categories, Virginia has the most entrepreneurially friendly regulatory environment, followed by North Dakota, Georgia, Kansas, and Alabama. The least friendly regulatory environments can be found in Washington, Connecticut, Rhode Island, California, and New Jersey.

I then compare the varied state labor regulations to the growth in small business employment and the growth in small business payrolls in each state to examine whether there is a negative association between the states with more burdensome labor regulations and the vibrancy of the entrepreneurial sector. This analysis illustrates that those states that impose a less burdensome regulatory environment tended to experience stronger growth in small business payrolls and, to a slightly lesser extent, stronger growth in employment.

Specifically, the top 33 percent of states (those states with the least burdensome regulatory environments) saw significantly faster growth in payrolls compared to all other states and experienced either a significantly smaller decline in employment (for businesses with 0 to 4 employees) or growth in employment (for busi-

nesses with less than 500 employees) compared to employment declines in all other states.⁷ These results provide further support to the common-sense notion that excessive government regulation of labor markets makes it more difficult for the entrepreneurial sector to thrive, and are an important contributor to a less vibrant entrepreneurial sector.

The policy implications from these findings are straightforward.

First, stop the current push to increase the regulatory burden on the entrepreneurial sector that is being advocated by too many national and state policymakers. A national \$15 minimum wage is, perhaps, the most visible ill-advised increase in the labor regulatory environment that is widely under consideration. If adopted, the large increase in the minimum wage would undoubtedly discourage entrepreneurship further. The impact of New York City's recent increase in the minimum wage to \$15 per hour demonstrates the likely

C The lesson for the federal government and high regulation states is clear: implement broad-based regulatory reforms that lessen the compliance costs for businesses, but particularly small businesses. consequences – including lost jobs and fewer hours for those people who maintain their jobs, particularly in the restaurant and hospitality industries.⁸ If a \$15 minimum wage has reduced jobs and raised prices in high-cost New York City, imagine the impact of a \$15 minimum wage if it were implemented in more affordable cities like Kansas City, MO.

Second, reinvigorating the entrepreneurial sector requires more than simply defeating ill-considered proposals like the \$15 minimum wage. Despite the recent (still insufficient) regulatory improvements at the federal level, overly-burdensome regulations at the federal and state level are still harming the entrepreneurial economy.

Take Connecticut's overly-burdensome occupational licensing laws as an example. An aspiring barber in Connecticut must complete 1,000 hours of training before he or she can become a barber. Put

differently, an aspiring barber must devote 6 months of his or her life toward full-time training (assuming they train 8 hours a day, 5 days a week) to meet the government mandated licensing requirements.⁹ Clearly, these requirements increase the costs to become a barber, which translates into higher employee costs for current (or aspiring) entrepreneurs. Basic economic logic illustrates that increasing the cost of an activity, decreases its amount; in this case, meaning there will be decreased entrepreneurship.

Excessive workers compensation costs are another anti-growth regulation that discourages entrepreneurship, and should be reformed. For example, at 188 percent of the median workers compensation costs (\$1.85 per \$100 of payroll), California had the highest costs according to Oregon's Department of Consumer and Business Services 2014 analysis (as of 2018, California still had the second-highest rate just below New York's).¹⁰ North Dakota, at 47 percent of the median costs, had the lowest, and North Carolina's workers compensation costs was the median. This means that a firm with a \$1 million payroll would spend around \$8,700 annually on workers compensation costs in North Dakota and \$18,500 annually in North Carolina, but approximately \$34,800 annually in California. Such a large additional cost burden reduces the profitability from engaging in entrepreneurial ventures in California compared to the same venture in North Carolina or North Dakota. These higher costs will lead to fewer entrepreneurial efforts. Reforming California's overly-expensive workers compensation costs could help reduce these costs and encourage greater entrepreneurship in the state.

Similar logic applies to all of the regulatory categories reviewed. The lesson for the federal government and high regulation states is clear: implement broad-based regulatory reforms that lessen the compliance costs for businesses, but particularly small businesses. By lessening the burden from regulations, including labor regulations, the government can help reinvigorate the entrepreneurial sector. As a result, economic growth will accelerate, and there will be more opportunities for people to better their lives and improve their communities.

Introduction

Entrepreneurship drives the U.S. economy. It fuels economic growth, creates new well-paying jobs, and provides consumers with better products and services. Entrepreneurship undoubtedly depends on individual creativity and vision, but fostering the right policy environment is equally essential. While the right policy environment incents entrepreneurs to fulfill the needs and desires of consumers, the wrong policy environment disincentivizes entrepreneurs from serving consumers' interests and, thus, reduces the social benefits created by entrepreneurial efforts.

This paper is the first in a series of PRI analyses that will examine the impact of regulations on small businesses and entrepreneurs. Incentivizing crony capitalism is one way that entrepreneurship's benefits are diminished by the wrong policy environment. Crony capitalism distorts free markets by subjugating the needs and desires of individual consumers to the will of the political class. Crony capitalism grows as the government expands its control over more parts of the economy, often in the name of "protecting consumers". The expansion of government influence fundamentally changes the incentives current (and budding) entrepreneurs face. Unfortunately, as the profitability of serving the political class increases, entrepreneurs can earn more money by pleasing government officials rather than pleasing consumers. The inevitable result of crony capitalism is declining innovation, stagnating incomes, diminishing job growth, and broad-based economic malaise.

Other policies discourage entrepreneurship by decreasing the reward from engaging in market-driven entrepreneurial activities. These policies include the imposition of excessively burdensome regulations, the subject of this analysis. Striking the ideal regulatory balance is difficult to say the least. Some amount of regulation is necessary to enable commerce, protect the environment, and establish core public safety. With respect to the productive side of the economy, ideally these regulations would impose the lowest possible compliance costs on businesses as possible, and not disadvantage some businesses relative to others.

This paper is the first in a series of PRI analyses that will examine the impact of regulations on small businesses and entrepreneurs. The purpose of this paper is to document the vital role entrepreneurs play, the evidence that illustrates how regulations obstruct this role, and the costs associated with labor regulations in particular.

The analysis begins with a quick review of the economic benefits created by small businesses and entrepreneurship. These benefits include economy-changing innovations from entrepreneurs whose innovations quickly become the large companies of tomorrow (think Google in 1998). Large economic benefits are also created by small businesses that (often by intention) remain small. These small businesses offer families a pathway to the middle class, and are the economic foundations for many communities. In fact, a healthy small business sector driven by individual entrepreneurship is historically connected to broad-based, widely-shared, economic growth. Documenting these benefits is crucial because the growing regulatory state is interfering with the ability of individuals to start their own businesses and work their way up to the middle class. Next, the study documents how current overly-burdensome regulations stifle entrepreneurship and small businesses. Beyond reviewing the studies that have examined this issue, this section uses alternative measures of the regulatory burden to illustrate that a more burdensome regulatory environment is negatively associated with a healthy small business and entrepreneurial sector.

Having connected the growing regulatory burden to a diminished small business sector, the study then leverages the labor regulation components of Pacific Research Institute's *Small Business Regulation Index* to illustrate that the states with more burdensome labor regulations also have less robust small business sectors. This result makes sense. It is costlier, relatively speaking, for small businesses to comply with labor regulations than large businesses. It follows that labor regulatory reform is an important policy change that will meaningfully strengthen the small business sector and entrepreneurship.

This analysis illustrates that the negative impacts from overly-burdensome labor regulations on small business growth and entrepreneurship, ironically, harms workers both directly (by reducing opportunities for entrepreneurship) and indirectly (by reducing the number of employment opportunities created by current small businesses and entrepreneurs). The result is a slower growing economy that provides fewer opportunities for advancement. Countering these negative consequences requires broad-based regulatory reforms that lessen the regulatory burden on businesses and particularly small businesses.

Future papers will provide a deeper analysis into important topics that will not be analyzed in sufficient depth in the current study. These topics include: the negative impact fewer entrepreneurial opportunities impose on lower income groups; industry specific considerations, highlighting the industries that are disproportionally impacted by specific regulations; and deep dive analyses into the technology and health care sectors.

The Vital Role of Entrepreneurs

Entrepreneurs and small businesses (also referred to as the entrepreneurial sector) serve vital roles in the U.S. economy. When entrepreneurs start small businesses, they are trying to create a better life for themselves and their families, including a more financially secure future. These opportunities are particularly valuable for individuals who are attempting to secure a middle-class lifestyle.¹¹

While entrepreneurs are improving the financial future for their own families, many of these ventures also hire employees, creating jobs and a steady income that benefit the broader local community. In fact, small businesses and start-ups are, traditionally, an important driver of job growth. According to the Small Business Administration, "from 2000 to 2017, small businesses [including those small businesses that became large businesses] created 8.4 million net new jobs while large businesses created 4.4 million. Thus, they accounted for 65.9% of net new job creation in the period."¹²

The economic value created by small businesses goes beyond job creation as well. Bruce et. al. (2009) examined state level data from 1988 through 2002, accounting for the interactions between business activity and economic growth, finding "that overall economic growth is faster when the net birth rate of new small firm establishments is positive."¹³ Similarly, Holtz-Eakin and Kao (2003) quantified the "relationship between productivity growth – by state and by industry – and entrepreneurship."¹⁴ Productivity growth is essential for both strong economic growth and robust and sustainable wage growth. With respect to the beneficial impact from entrepreneurship, Holtz-Eakin and Kao (2003) found a statistically significant relationship between "increases in the birth rate of firms" and "higher levels of productivity". These results confirm the vital role that the entrepreneurial sector plays in driving broad-based, widely-shared, economic growth.

Entrepreneurship also serves as an important means for maintaining a middle-class lifestyle. As summarized in a 2015 Milstein Symposium report,

in a 2009 survey by the Kauffman Foundation, 72% of entrepreneurs came from self-described "middle-class" backgrounds, and 22% reported being from "upper-lower class" families headed by blue-collar workers. And a 2012 survey by Small Business Majority found that of the 54% of small business owners whose revenues are reported as personal income, just 5% claimed incomes of over \$250,000.

In short, entrepreneurship is a widely dispersed, crucial element of the U.S. economy. It comprises a rich tapestry of sizes, industries, and aspirations. It includes not only gazelles, but also owners of salons, filling stations, brewpubs, and web design firms. They are all part of the same web of economic growth—one that is vital to strengthening the middle class.¹⁵

Entrepreneurship can also improve social mobility, particularly for minorities. According to the *Hamilton Project*,

A recent study found that among African Americans, entrepreneurs were more likely than non-entrepreneurs to move into a higher income group. Perhaps most importantly, the study found that African American entrepreneurs were as likely to move into higher income groups as were white entrepreneurs, indicating that entrepreneurship could play a prominent role in reducing the wealth gap between whites and African Americans. Entrepreneurship may help close the gender wealth gap as well.¹⁶

While many small businesses will remain small, these businesses represent only part of the entrepreneurial economy. Small businesses are typically the incubators for new innovations, better products and services, and new sources of market competition that help discipline the market. In so doing, these small businesses (who may not remain small for long) ensure that consumers benefit from better quality goods and services at more affordable prices.

Despite the importance of entrepreneurship, there are signs that the entrepreneurial sector is stagnating. In a report on the small business economy that was commissioned by the Small Business Administration, Kobe (2012) found that

the small business share of many of the industry sectors has been slowly declining. For example, the small business share of the trade sector has declined from over 50 percent in 1998 to about 44 percent by 2008. The professional and technical services sector has gone from about 70 percent small business in 1998 to roughly 60 percent in 2008. About 56 percent of the health services sector output was produced by small businesses in 1998 compared to about 52 percent by the end of the decade.¹⁷

Overall, Kobe documented that since the methodology was updated as of the 2002 data, small businesses' share of total economic output (GDP) fell from 48 percent in 2002 to less than 45 percent in 2010.¹⁸ Reporting on the troubling trends in the entrepreneurial sector, Leigh Buchanan has noted that

the U.S. startup rate has been falling for decades. The Kauffman Foundation, citing its own research and drawing on U.S. Census data, concluded that the number of companies less than a year old had declined as a share of all businesses by nearly 44 percent between 1978 and 2012. And those declines swept across industries, including tech. Meanwhile, the Brookings Institution, also using Census data, established that the number of new businesses is down across the country and that more businesses are dying than are being born. All this at a time when entrepreneurship had reached its cultural apex and was widely viewed as the sole sizzling ember in an otherwise cooling economy. The business and academic worlds were left slack-jawed: How could this be?

The implications are huge. "New businesses are disproportionately responsible for the innovation that drives productivity and economic growth, and they account for virtually all net new job creation," says John Dearie, executive vice president for policy at the Financial Services Forum. "I would say, as a policy person, this is nothing short of a national emergency."¹⁹

The decline in entrepreneurship is disconcerting from an income inequality perspective as well. Concerns

of widening income inequality in the U.S. have heightened as of late. The decline in entrepreneurial activities, particularly the opportunity for low-income individuals to engage in entrepreneurial ventures, is an important contributor to these concerns. While Buchanan explored many factors, such as demographics and funding constraints, an oft-cited contributor to the problem is managing the regulatory maze. Not only have burdensome regulations, particularly labor regulations, added to the problem of declining entrepreneurship, many regulations, such as occupational licensing requirements, impose a particularly onerous burden on the types of businesses that low-income individuals are more likely to create, such as restaurants or landscaping services.

 ...the losses lowerincome families suffer from lost innovations may be a higher burden as well.

Excessive regulations also indirectly harm lower-income families. First, regulations reduce overall economic growth. Lower-income families and lower-skilled workers often experience the largest income losses during periods of slow economic growth. Second, low-income Americans disproportionately suffer as consumers when regulations discourage entrepreneurial ventures. For example, Fraiberger and Sundararajan (2017) found that the sharing economy has "a disproportionately positive effect on lower-income consumers across almost every measure," which encompasses their participation as both sellers and consumers.²⁰ Therefore, the losses lower-income families suffer from lost innovations may be a higher burden as well.

Rising Regulations, Declining Entrepreneurship

The current regulatory burden in the U.S. is far too onerous. A study by Crain and Crain (2014) estimates that as of 2012, the regulatory environment imposed over \$2 trillion in costs on businesses and entrepreneurs.²¹ The complex regulatory state also promotes crony capitalism, wastes millions of hours of work on low-productivity compliance activities, and distorts the capital structure. Fundamental regulatory reforms are, consequently, necessary.

While fundamental reforms are still necessary, it is important to note that progress has been made recently. As exemplified by federal regulatory budget savings, the regulatory assault that accelerated under the Obama Administration has been reversed.²² However, much more still needs to be done at both the federal and state levels.

 Excessive labor regulations can also become a deterrent to engaging in entrepreneurial ventures in the first place. Focusing on labor regulations, excessively burdensome labor regulations, like occupational licensing requirements and workers compensation costs, are dampening beneficial entrepreneurship in a number of ways. Labor regulations increase the costs of operating a small business, which increases the likelihood of failure. They also impose a higher cost burden on small businesses relative to their larger competitors because small businesses lack the scale to effectively manage the regulatory costs and red tape. In contrast, larger well-established companies have the scale to more efficiently manage regulatory compliance costs than smaller firms. Consequently, burdensome labor regulations put small businesses at a competitive disadvantage.

Excessive labor regulations can also become a deterrent to engaging in entrepreneurial ventures in the first place. When people start an entrepreneurial venture, the risk of failure looms large. According to the Small Business Administration, only 50 percent of new businesses last more than five years.²³ For those businesses that do fail, the owners will often need to regain their financial stability after the bankruptcy, which will often require taking on a full-time job before they can try another business venture. Overly burdensome labor regulations lead to a more rigid labor market, making it more difficult for former entrepreneurs to regain their financial stability and less likely to strike out on their own again once they have. Thus, the less dynamic labor market caused by excessive regulations indirectly contributes to a less dynamic entrepreneurial market.

Restoring a vibrant entrepreneurial market requires a commitment to regulatory reforms that foster a less rigid, more vibrant, labor market. Reforming labor regulations can meaningfully increase the amount of entrepreneurship in the economy by relieving current, and aspiring, entrepreneurs of the onerous and unnecessary regulations that muzzle their potential. A more vibrant entrepreneurial sector will, consequently, improve economic growth and restore an effective pathway for people to create a more prosperous future for themselves and their children.

This link between a growing regulatory burden and slower economic growth has been well documented. For instance, Dawson and Seater (2013) examined the relationship between federal regulations and economic growth.²⁴ The analysis found a statistically significant relationship between the rising regulatory burden and declining economic growth. Overall, Dawson and Seater found that between 1949 and 2005, the growth in federal regulations was responsible for a 2.0 percentage point decline in the average annual growth rate in the U.S. economy.²⁵

The findings of Coffey, McLaughlin, and Peretto (2016) confirm this negative impact, finding "...that economic growth has been dampened by approximately 0.8 percent per annum since 1980. Had regulation been held constant at levels observed in 1980, our model predicts that the economy would have been nearly 25 percent larger by 2012 (i.e., regulatory growth since 1980 cost GDP \$4 trillion in 2012, or about \$13,000 per capita).²⁶

A negative economic impact has also been found with respect to labor regulations. Brannon and Batkins examined the expected economic impact from the increased labor regulations in the final year of the Obama Administration.²⁷ Brannon and Batkins study examined

the costs of six major labor policy regulations recently enacted or set to be implemented soon. While the impact of these regulations crucially depends on the relevant industries, the aggregate costs estimated for these regulations using independent, nonagency estimates that also account for the burden of demonstrating compliance approach roughly \$80 billion over the next ten years, as well as over 400 million paperwork hours.

Our analysis includes a broad range of direct short-term job losses from these regulations. This range of short-term job losses stemming directly from regulatory compliance with these regulations is estimated at 155,000 jobs in our analysis.²⁸

A growing regulatory burden also negatively impacts productivity growth. For example, the study by Dawson and Seater (2013) found a significant link between the rising regulatory state and declining productiv-

ity growth. Consequently, the growing regulatory burden is related to the problem of declining productivity and stagnating wages. Since small businesses are often the economic innovators driving productivity growth, the Dawson and Seater findings also have important implications for the entrepreneurial sector.

Sobel, Clark, and Lee (2007) note that the regulatory barriers to competition "have a strong negative impact on entrepreneurial activity in an economy."²⁹ Calcagno and Sobel (2014) confirm that larger regulatory burdens harm the smallest businesses the most.³⁰ Specifically, the study empirically examined "the relationship between the size distribution of establishments and the level of regulation using state- and industry-level panel data Consequently, the growing regulatory burden is related to the problem of declining productivity and stagnating wages. from 1992 to 2004. Our results suggest that *regulation decreases the proportion of zero employee and* 1-4 *employee establishments*. The proportion of establishments in the 5–9 employee range generally increases with the level of regulation. Thus, regulation appears to operate as a fixed cost causing establishments to be larger."³¹ Similarly, a study by Bailey and Thomas (2015) confirms the hypothesis that regulation inhibits business growth and job creation while protecting larger, existing businesses.³² Specifically, Bailey and Thomas (2015) found:

- *Firm births*. A 10% increase in the intensity of regulation leads to a statistically significant 0.5% decrease in overall firm births. There is a statistically significant decrease among births of small firms but no statistically significant effect on births of large firms, confirming the hypothesis that incumbent firms benefit from regulation because it deters new entrants.
- ◆ *Firm deaths*. Regulation had no statistically significant effect on firm deaths. Regulation drives away new entrants, but does not put existing firms out of business. In fact, there is some evidence that firm deaths may decrease with increased regulation as businesses benefit from less competition.
- ◆ *New hires.* A 10% increase in regulation is associated with a statistically significant 0.9% decrease in hiring among all firms and a 0.5% decrease specifically among small firms.³³

The Crain and Crain (2014) analysis quantifies how the burden from regulations vary between large firms and small firms.³⁴ While the average regulatory cost per employee in 2012 (measured in 2014 dollars) was \$9,991, the cost per employee for firms with fewer than 50 employees was \$11,724, or 29 percent higher than the cost for firms with 100 employees or more (\$9,083 per employee).

In its 2017 evaluation of the economic costs of regulations, particularly for small businesses, the U.S. Chamber found:

- Government regulations have a sizable impact on free enterprise in America, disproportionately impacting small businesses.
- Federal regulations alone are estimated to cost the American economy as much as \$1.9 trillion a year in direct costs, lost productivity, and higher prices. The costs to smaller businesses with 50 employees or fewer are nearly 20% higher than the average for all firms.
- Every \$1 increase in per capita regulatory expenditures are directly correlated with decreases in the smallest firms (those employing between one and four persons) by 0.0156%, a figure whose burden quickly adds up.
- Based on the current regulatory climate, nearly one in three chamber executives we spoke with as a part of this project say they would not actively encourage new business establishment and relocation in their regions. More than two-thirds reported that federal regulations have become "more" or "much more" significant over the past several years.³⁵

Consistent with these empirical findings, the entrepreneurial sector often complains about the cost of complying with the growing regulatory burden. The NFIB, an association of small businesses, performs monthly surveys of the single most important problem facing small businesses. The burden from government regulations and red tape, while down from around 20 percent of firms who reported regulations as the largest problem during the Obama years, as of January 2019, 12 percent of firms still listed regulations and red tape as their single largest challenge.³⁶

In light of these clear negative impacts, it is important to note that there have been positive movements recently. For instance, the Office of Management and Budget has recognized that regulations are a larger burden on smaller businesses, noting that

...many statutes and regulations explicitly attempt to reduce burdens on small businesses, in part to promote economic growth and in part to mitigate against unnecessary or unjustified costs and adverse effects on employment and wages. For example, agencies frequently tailor regulations to limit the costs imposed on small businesses and to offer regulatory relief, including explicit exemptions for small businesses and slower phase-in schedules, allowing adequate periods of transition. Moreover, the Regulatory Flexibility Act (RFA) requires agencies to assess the effect of regula-

tions on small businesses.³⁷

Acting on this realization, there has been a decline in the growing regulatory burden on small businesses recently, which has been documented by Crews in the 2018 edition of *Ten Thousand Commandments*.³⁸ Despite these positive changes, the growth disincentives for small businesses created by the overly-burdensome regulatory state persists. Further, the drive for a \$15 minimum wage exemplifies that support for a continued regulatory onslaught, particularly with respect to labor regulations, continues.

Identifying the negative impact of regulations on the entrepreneurial sector is imperative in light of the well-documented decline in entrepreneurship. One difficulty that all regulatory analyses face is how to measure Identifying the negative impact of regulations on the entrepreneurial sector is imperative in light of the welldocumented decline in entrepreneurship.

the regulatory burden. An oft-used measure is to simply count the number of pages in the *Federal Register*, or the daily journal where all new rules, executive orders, and agency policies are published. Based on this measure, the federal regulatory burden has grown dramatically, but this growth has not been consistent. Figure 1 illustrates this trend by presenting the size of the *Federal Register* between 1936 and 2018.

Figure 1 presents several important trends as it relates to the federal regulatory burden. First, the regulatory surge of the 1970s, along with the deregulation of the Reagan years are clearly evident. Since the end of the 1980s deregulation, the federal regulatory burden has been creeping back up, with a late-term surge during the end of the Obama years, followed by the large reduction during President Trump's first two years.

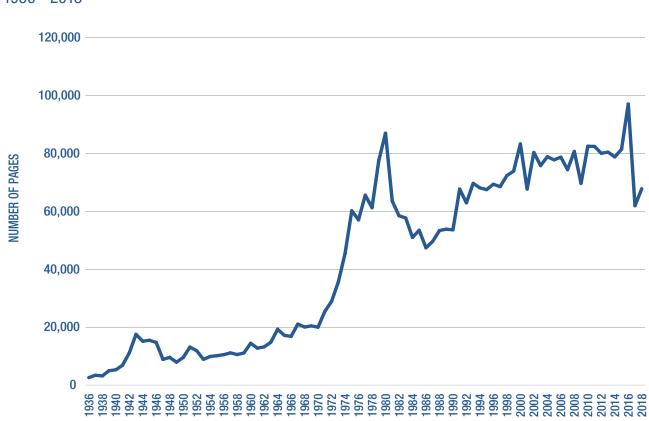


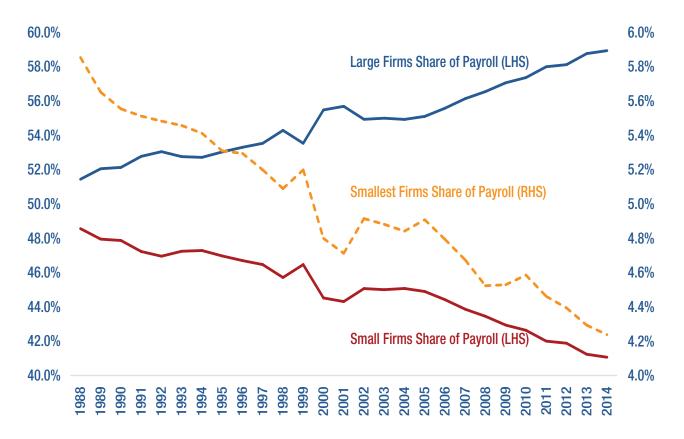
FIGURE 1 NUMBER OF PAGES IN THE FEDERAL REGISTER 1936 - 2018

Source: Federal Register

Focusing on the period since the late-1980s, the growth in the regulatory burden as measured by the size of the *Federal Register* has cycled between periods of a growing burden (the early-1990s, late 1990s, and between 2009 and 2014), and periods of a declining burden (the mid-1990s and early 2000s). These

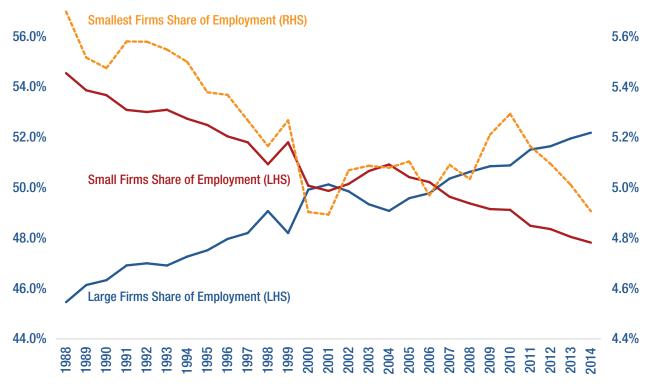
changes in the regulatory burden were associated with predictable changes to the growth patterns of small businesses. To visualize these patterns, it is important to first document the relative decline of the small business sector during this period, see Figures 2 and 3. Figure 2 compares the share of total business payrolls for three business size categories: the smallest businesses, or those with 0 to 4 employees; small businesses, or those businesses with less than 500 employees, which is a key threshold used by the Small Business Administration to distinguish small businesses from large businesses; and large businesses es, or those businesses with more than 500 employees. Figure 3 makes the same comparisons based on share of employment.

FIGURE 2 SHARE OF TOTAL PAYROLL BY FIRM SIZE SMALLEST FIRMS (0 – 4 EMPLOYEES), SMALL FIRMS (LESS THAN 500 EMPLOYEES), AND LARGE FIRMS (GREATER THAN 500 EMPLOYEES), 1988 - 2014



Source: Small Business Administration

FIGURE 3 SHARE OF TOTAL EMPLOYMENT BY FIRM SIZE SMALLEST FIRMS (0 – 4 EMPLOYEES), SMALL FIRMS (LESS THAN 500 EMPLOYEES), AND LARGE FIRMS (GREATER THAN 500 EMPLOYEES), 1988 - 2014



Source: Small Business Administration

Starting with Figure 2, large firms accounted for approximately 51 percent of the total payrolls as of 1988. This share has grown consistently throughout this period, and by 2014, large businesses' share of payrolls have grown to around 58 percent. By definition, the decline in small businesses' share of payrolls was the inverse of the large businesses' gain, but what is interesting is that the smallest businesses (those with 0 to 4 employees) saw an even steeper drop in their share of payrolls (on a percentage decline basis). Based on small businesses' share of payrolls, there has been a steady decline in the small business sector relative to larger businesses.

While there are differences, a similar trend holds for small businesses' share of employment (Figure 3). Large businesses' share of employment has grown approximately 6 percentage points. And, like with the share of payrolls, the share of employment with the smallest firms, while a bit more volatile during the early 2000s, has experienced a steeper decline than the declines for overall small businesses. These trends provide further support that the entrepreneurial economy has been declining relative to the large business economy.

After accounting for small businesses' declining share of employment and payrolls, there is a clear association between the rates of decline in the entrepreneurial economy and the surges and declines in the regulatory burden illustrated in Figure 1. These patterns (up to 2014, the latest small business data available) are summarized in Table 1.

TABLE 1 CHANGES IN THE NUMBER OF PAGES IN THE FEDERAL REGISTER COMPARED TOCHANGES IN THE ENTREPRENEURIAL SECTOR'S SHARE OF PAYROLLS AND EMPLOYMENT1988 - 2014

	Chg. Federal Register	Change in Share of Payrolls (in basis points)		ederal of Payrolls		n Share of Employment n basis points)	
		0 - 4	< 500	500+	0 - 4	< 500	500+
Growing Regulatory Burden	4.9%	(9.02)	(42.88)	42.88	(7.07)	(37.68)	37.68
Declining Regulatory Burden	-1.2%	(4.73)	(18.52)	18.52	(1.81)	(21.30)	21.30

Source: Author calculations based on data from the Small Business Administration and Federal Register

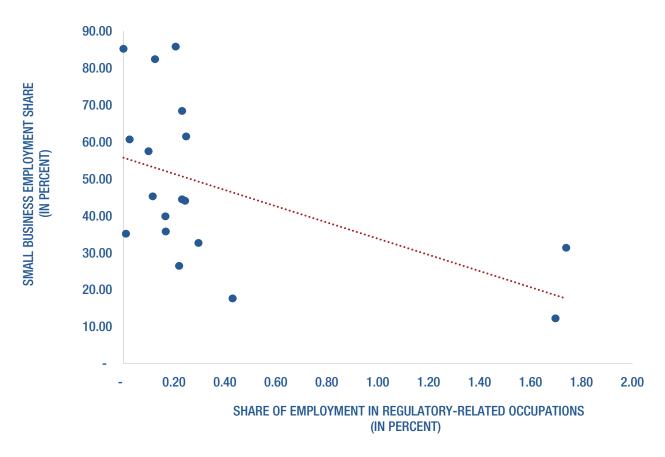
Table 1 categorizes the 1988 through 2014 period based on whether the size of the *Federal Register* was growing or declining. It illustrates that during the three periods when the size of the *Federal Register* was growing, the decline in the entrepreneurial economy's share of payrolls and employment accelerated, and when the *Federal Register* was shrinking, the decline generally decelerated. By definition, the opposite effect occurred for large businesses' share of payrolls. This association is consistent with the findings from the studies examined above – a growing regulatory burden discourages growth in the entrepreneurial economy.

Using the size of the *Federal Register* as a proxy for the size of the regulatory burden leaves important questions unanswered, however. For instance, a regulation could require few pages in the *Federal Register* yet still impose large costs on businesses, and vice versa. In response to some of these shortcomings, Simkovic and Zhang developed

a novel approach based on the assumption that the burdensomeness of regulations is reflected in the response of regulated firms to those regulations. When industries are more intensely regulated, firms within those industries spend relatively more on employees whose jobs entail navigating, complying with, and shaping regulations—principally legal and compliance employees. We scale such expenditures relative to total employment costs.³⁹

The Simkovic and Zhang insight is straightforward. If the firms in an industry have to hire more lawyers, paralegals, and compliance officers, then it is likely that these industries must comply with a heavy regulatory burden. Using the Simkovic and Zhang definition of "regulation-related occupations," I estimate the share of employment in the regulatory-related occupations by industry based on data on occupation by industry that is maintained by the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES), excluding the Professional, Scientific, and Technical Services industry.⁴⁰ The category of professional services was excluded from the analysis because it includes legal services, and is, consequently, skewed toward regulatory-related occupations by definition. The share of employment in regulatory related occupations is then compared to the share of employment represented by small businesses for each industry. These results are presented in Figure 4.





Source: Author calculations based on BLS and SBA data

The dots in Figure 4 each represent an industry (construction, manufacturing, information services, etc.) The further a dot is along the horizontal axis, the higher the share of regulatory-related occupations in the industry's employment. The higher a dot is along the vertical axis, the higher small businesses' share of industry employment is. As the red dotted line in Figure 4 indicates, there is a generally negative relationship between the industries that require more regulatory-related occupations and the small businesses' share of industry employment. Put more simply, small businesses have a harder time thriving in the industries that must manage more government regulations. This result is consistent with the empirical studies cited earlier and argues that continued deregulation is required in order to encourage more entrepreneurship and small businesses.

Entrepreneurial Growth Impediments Caused by Excessive Labor Regulations

Having established a negative impact from regulations on the entrepreneurial sector, it is also useful to understand the impact from labor regulations in particular. Labor regulations directly impact the operations of most businesses regardless of their industry, so their impact on entrepreneurship is particularly important.

Labor regulations are promulgated at both the federal and state levels. The varied labor regulations across the states provide a useful dataset to test whether there is a negative impact from more burdensome labor regulations on the entrepreneurial sector. As illustrated below, the state experiences demonstrate that states with less favorable regulatory environments experience slower growth in the entrepreneurial economy, particularly payroll growth.

States impose a wide array of restrictions that, by definition, have varying impacts on small businesses. This analysis evaluates states based on the following seven labor regulatory categories: workers compensation, occupational licensing requirements, state minimum wages, right to work laws, mandatory medical bene-

fits, unemployment insurance, and short-term disability regulations. All regulatory burdens are measured as of 2014, since that is the last year of small business payroll and employment data evaluated.

Each one of these regulations imposes additional costs on all businesses but, due to their smaller size, impose a higher burden on the entrepreneurial economy relative to the large business economy. For a more in-depth discussion of why these regulations are expected to diminish the vitality of the entrepreneurial sector, see Pacific Research Institute's *Small Business Regulation Index.*⁴¹ To combine these varied regulations into a summary measure of the relative burden of each state's labor regulations, this section applies the methodology of the *Small Business Regulation Index*, using updated data where appropriate.⁴²

Starting with workers compensation insurance, each state imposes regulations on businesses mandating that employers provide insurance for workers who are injured The workers compensation insurance requirements for many states are rigid and overly-costly, creating a less efficient method for small businesses to compensate their workers.

on the job. The workers compensation insurance requirements for many states are rigid and overly-costly, creating a less efficient method for small businesses to compensate their workers. Consequently, the states with workers compensation insurance systems that impose unnecessarily high costs on small businesses are diminishing economic efficiency, increasing costs, and creating a disincentive for small businesses to grow and expand their payrolls. Each state's workers compensation program is ranked based on the state-imposed workers' compensation costs adjusted for industry composition as calculated by the Oregon Department of Consumer and Business Services.⁴³

Occupational licensing requirements erect barriers to entry for budding entrepreneurs to the benefit of current businesses. The stricter the licensing and certification rules, the greater the barriers to entrepreneurship. States that impose greater occupational licensing restrictions experience slower growth in the creation of small businesses and in employment by small businesses. As was measured in the *Small Business Regulation Index*, the burden from each state's occupational licensing laws are based on a combination of the number of job categories that require a license and the share of the workforce that is licensed and/or certified.⁴⁴

In total, 29 states establish a minimum wage threshold above the national minimum wage of \$7.25 per hour. Minimum wage increases cause all businesses (but particularly small businesses) to either reduce the number of workers they employ, cut workers' hours, raise prices, suffer lower profits, or a combination of all four. The burden of each state's minimum wage law is based on the prevailing statewide minimum wage levels, according to the Department of Labor.⁴⁵

Right-to-work laws empower employees to decide for themselves whether or not to join, or financially support, a union. With right-to-work laws, the worker decides whether joining a union is beneficial. The forced union membership that can occur without right-to-work laws creates an unfair advantage for unions. Without right-to-work laws, unions are empowered to demand concessions that lead to a larger,

Expanded family leave regulations create additional burdens that will be felt more acutely by larger small businesses because the states typically have exemptions for the smallest businesses. and financially unsustainable, burden on small businesses. Exemplifying the consequences from these higher financial burdens, right-to-work laws are associated with higher state economic growth. Right-to-work laws are also a desired criterion for many businesses looking to site new facilities.

While the federal government imposes family leave laws through the Federal Medical Leave Act (FMLA), states have the option to impose more generous provisions, which several states have. These more generous provisions include expanding the type of coverage; mandating that businesses offer paid family and medical leave (as opposed to unpaid leave); mandating businesses offer paid sick leave; or mandating businesses offer parental leave for school-related activities. Expanded family leave regulations create additional burdens that will be felt more acutely by larger small businesses because the states typically have exemptions for the smallest businesses. Since the entrepreneurial sector has fewer resources, the costs created by expanded family leave regulations are

more burdensome relative to the large business economy. The burden from the expanded medical leave regulations is the ranking as calculated in the *Small Business Regulation Index*, which was based on ten key family leave categories as documented by the National Conference of State Legislatures and the National Partnership for Women & Families.⁴⁶

The basic unemployment insurance program typically provides 26 weeks of monetary benefits to qualified unemployed workers, which are funded by taxes levied on employers paying unemployment insurance taxes. Paying unemployment insurance is a necessary cost of doing business for small businesses, and states that levy more burdensome unemployment insurance costs increase the costs that small businesses

face when hiring additional employees. When the cost of hiring an employee is higher, small business owners will either hire fewer employees, pay each employee less, or, when economizing on employees is not possible, suffer a loss in their own personal income. The result is a less vibrant small business sector in the states that levy higher unemployment insurance costs. States are ranked based on the estimated employer contribution rates as a percent of total wages calculated by the U.S. Department of Labor.⁴⁷

California, Hawaii, New Jersey, New York, and Rhode Island require employers to provide employees with insurance that partially replaces any lost wages due to non-work-related sicknesses or injuries.⁴⁸ No other state imposes these additional costs on businesses. Mandating that businesses pay specific benefits regardless of employees' desire to receive those benefits creates the same economic inefficiency that arises with the workers compensation insurance mandates and unemployment insurance mandates. The states that mandate these burdens further increase the costs on small businesses when hiring additional workers, dampening the vitality of the small business sector. When the cost of hiring an employee is higher, small business owners will either hire fewer employees, pay each employee less, or, when economizing on employees is not possible, suffer a loss in their own personal income.

The composite score for each state is the average of the rankings across the seven categories – a higher composite score indicating the state imposes a more burdensome labor regulatory environment. Table 2 presents the rankings.

Table 2State Labor Regulatory Rankings

STATE	RANK	COMPOSITE SCORE
Virginia	1	2.7
North Dakota	2	3.9
Georgia	3	5.0
Kansas	4	6.1
Alabama	5	7.1
Mississippi	6	7.7
South Dakota	7	8.0
Utah	8	8.4
South Carolina	9	9.3
Texas	9	9.3
Indiana	11	9.7
Nebraska	12	10.0
Arizona	13	12.0
Arkansas	14	12.9
West Virginia	14	12.9
Wyoming	16	13.1
Kentucky	17	13.3
Maryland	17	13.3
Oklahoma	19	14.4
Missouri	20	14.6
Tennessee	20	14.6
Idaho	22	15.7
Florida	23	16.0
Pennsylvania	24	16.4
Ohio	25	16.6
Delaware	26	16.7
lowa	27	16.9
Wisconsin	28	17.0
Colorado	29	17.4
Michigan	30	17.6
Louisiana	31	17.7
North Carolina	32	17.9
New Hampshire	33	19.3
Nevada	34	21.7
Massachusetts	35	23.0

Minnesota	36	24.6
New Mexico	37	25.7
Montana	38	28.1
Alaska	39	29.3
Maine	40	29.4
Oregon	41	30.9
Illinois	42	31.0
New York	43	31.1
Vermont	44	32.6
Hawaii	45	32.9
Washington	46	33.4
Connecticut	47	36.3
Rhode Island	48	38.6
California	49	40.3
New Jersey	50	42.6

Source: Author calculations

Across the seven labor regulatory categories, Virginia has the most entrepreneurially friendly regulatory environment, followed by North Dakota, Georgia, Kansas, and Alabama. The least friendly regulatory environments can be found in Washington, Connecticut, Rhode Island, California, and New Jersey. Comparing the rankings to the growth in small business employment and the growth in small business payrolls in each state illustrates that those states that impose a less burdensome regulatory environment tended to experience stronger growth in small business payrolls and, to a slightly lesser extent, stronger growth in employment. Table 3 summarizes the results.

TABLE 3GROWTH RATE BETWEEN 2005 AND 2014 IN THE ENTREPRENEURIAL SECTOR'S SHARE OFPAYROLLS AND EMPLOYMENT BY REGULATORY RANKING

	Between 0 and 4 Employees		Less than 500 Employees		
	Payroll	Employment	Payroll	Employment	
Top third	22.19%	-0.63%	29.34%	0.08%	
Middle third	14.23%	-2.89%	21.22%	-2.74%	
Bottom third	12.31%	-1.63%	19.60%	-2.15%	

Source: Author calculations based on SBA data

Table 3 illustrates that whether it is for the smallest businesses (with 0 to 4 employees) or the SBA definition of a small business (with less than 500 employees), the top 33 percent of states (those states with the least burdensome regulatory environments) saw significantly faster growth in payrolls compared to all other states and experienced either a significantly smaller decline in employment (for businesses with 0 to 4 employees) or actual growth in employment (for businesses with less than 500 employees) compared to employment declines in all other states.⁴⁹ These results provide further support to the common-sense notion that excessive government regulation of the labor markets makes it more difficult for the entrepreneurial sector to thrive.

The policy implications from these findings are straightforward.

First, national and state policymakers are promoting a growing number of proposals that would increase the regulatory burden on the entrepreneurial sector. These regulations would, based on the evidence reviewed above, significantly limit the growth of the entrepreneurial sector and should be rejected.

A national \$15 minimum wage is, perhaps, the most visible ill-advised increase in the labor regulatory environment that is widely under consideration. If adopted, the large increase in the minimum wage would undoubtedly discourage entrepreneurship further. The impact of New York City's recent increase in the minimum wage to \$15 per hour demonstrates the likely consequences – including lost jobs and fewer hours for those people who maintain their jobs, specifically in the restaurant and hospitality industries.⁵⁰ If a \$15 minimum wage has reduced jobs and raised prices in high-cost New York City, imagine the impact of a \$15 minimum wage if it were implemented in more affordable cities like Kansas City, MO.

Second, reinvigorating the entrepreneurial sector requires more than simply defeating ill-considered proposals like the \$15 minimum wage. Despite the recent (still insufficient) regulatory improvements at the federal level, overly-burdensome state regulations, such as occupational licensing laws, are harming the entrepreneurial economy.

Occupational licensing laws unnecessarily increase the costs of becoming an entrepreneur, and increase the costs for small businesses who hire workers that require costly occupational licenses. Take Connecticut's overly-burdensome occupational licensing laws as an example. An aspiring barber in Connecticut must complete 1,000 hours of training before he or she can become a barber. Put differently, an aspiring barber must devote 6 months of his or her life toward full-time training (assuming they are training 8 hours a day, 5 days a week) just to fulfill the government-created mandates.⁵¹ Clearly, these requirements increase costs for barber shops and barbers. Basic economic logic illustrates that increasing the cost of an activity, decreases its amount; in this case, meaning there will be decreased entrepreneurship.

Excessive workers compensation costs are another anti-growth regulation that discourages entrepreneurship, and should be reformed. For example, relative to the median workers compensation costs (\$1.85 per \$100 of payroll), California, at 188 percent of the median, had the highest costs according to Oregon's 2014 analysis of workers' compensation costs (as of 2018 California still had the second-highest rate just below New York's).⁵² North Dakota, at 47 percent of the median costs, had the lowest, and North Carolina's workers compensation costs was the median. This means that a firm with a \$1 million payroll would spend around \$8,700 annually on workers compensation costs in North Dakota and \$18,500 annually in North Carolina, but approximately \$34,800 annually in California. Such a large additional cost burden reduces the profitability from engaging in entrepreneurial ventures in California compared to the same venture in North Carolina or North Dakota. These higher costs will lead to fewer entrepreneurial efforts. Reforming California's overly-expensive workers compensation costs could help reduce these costs and encourage greater entrepreneurship in the state.

Similar logic applies to all of the regulatory categories reviewed above. Consequently, states should actively pursue reforms of their labor regulations to ensure they impose the least burdensome costs on businesses as possible, particularly small businesses.

Conclusion

The entrepreneurial sector is a vital component of a healthy economy. Entrepreneurs drive the innovations that propel growth and improve our standard of living. In light of their important role in promoting prosperity, the recent declines in the entrepreneurial economy are disconcerting. The studies and analysis reviewed above illustrate that excessive government regulations, including labor regulations, are a meaningful contributor to the declining prospects of entrepreneurship across the U.S.

The consequences from the federal and state governments imposing overly-burdensome labor regulations include a higher cost of doing business, sometimes prohibitively so, which falls disproportionately on the entrepreneurial sector. Onerous government oversight translates into fewer jobs, fewer new businesses, stunted growth, less competition, and less freedom and opportunity for individuals. Additionally, the negative economic impact from labor regulations on the entrepreneurial economy leads to the ironic result that policies implemented with the goal of protecting workers has the effect of reducing the number of opportunities for workers, small businesses, and future entrepreneurs.

At the state level, far too many states are imposing unnecessarily burdensome labor regulations including excessively high minimum wages, extensive occupational licensing requirements, and undue unemployment insurance costs. These states are also experiencing significantly slower small business growth compared to the states that implement much less burdensome forms of these regulations. The lesson for the high regulation states is clear: implement broad-based regulatory reforms that lessen the compliance costs for businesses, but particularly small businesses. A continuation of the deregulatory efforts at the federal level is also required.

By lessening the burden from regulations, including labor regulations, the government can help reinvigorate the entrepreneurial sector. As a result, economic growth will accelerate, and there will be more opportunities for people to better their lives and improve their communities.

Endnotes

- 1 Kobe K (2012) "Small Business GDP: Update 2002 2010" Small Business Administration: Office of Advocacy, January.
- 2 Crain WM and Crain NV (2014) "The Cost of Federal Regulation to the U.S. Economy, Manufacturing and Small Business" *National Association of Manufacturers*, September 10.
- 3 Small Business Administration; https://www.sba.gov/sites/default/files/Business-Survival.pdf.
- 4 Simkovic M (2018) "Measuring Regulation Based on Industry Response" *The CLS Blue Sky Blog: Columbia Law School's Blog on Corporations and the Capital Markets*, August 9.
- 5 The methodology is developed in: Simkovic M and Zhang MB (2019) "Measuring Regulation" *Working Paper*, January; https://ssrn.com/abstract=3205589. The employment data is available at: https://www.bls.gov/oes/,
- 6 Winegarden W (2015) *The 50-State Small Business Regulation Index* Pacific Research Institute, July; https://www.pacificresearch.org/the-50-state-small-business-regulation-index/.
- 7 Alternative categorizations (such as by quintiles) yielded similar patterns.
- 8 Binion B (2019) "Minimum Wage Hikes in New York City Causes Restaurants to Eliminate Jobs, Cut Hours, Raise Prices" *Reason*, January 24; https://reason.com/blog/2019/01/24/mini-mum-wage-hikes-threaten-new-york-cit.
- 9 See: NCSL State Occupational Licensing Statute Database; http://www.ncsl.org/research/labor-and-employment/occupational-licensing-statute-database.aspx.
- (2015) "Oregon Workers' Compensation Premium Rate Ranking: Calendar Year 2014"
 Oregon Department of Consumer and Business Services, February. For the updated rankings see:
 (2018) "2018 Oregon Workers' Compensation Premium Rate Ranking Summary" Oregon Department of Consumer and Business Services, October.
- 11 Holtz-Eakin D, Rosen HS, Weathers R (2000) "Horatio Alger Meets the Mobility Tables" NBER Working Paper #7619 National Bureau of Economic Research.
- 12 (2018) "Frequently Asked Questions About Small Business" U.S. Small Business Administration: Office of Advocacy, August; https://www.sba.gov/sites/default/files/advocacy/Frequently-Asked-Questions-Small-Business-2018.pdf.
- 13 Bruce D, Deskins JA, Hill BC and Rork JC (2009) "(Small) Business Activity and State Economic Growth: Does Size Matter?" *Regional Studies*, April, Pages 229-245.
- 14 Holtz-Eakin D and Kao C (2003) "Entrepreneurship and Economic Growth: The Proof Is in the Productivity" *Center for Policy Research*, 111; https://surface.syr.edu/cgi/viewcontent. cgi?article=1110&context=cpr.

- 15 (2015) "Can Startups Save the American Dream" *Milstein Symposium*, January; http://web1. millercenter.org/conferences/milstein/MilsteinReport-AmericanDream.pdf.
- 16 (2015) "Minority and Women Entrepreneurs: Building Capital, Networks, and Skills" *The Hamilton Project*, Policy Brief 2015-03, March; https://www.brookings.edu/wp-content/uploads/2016/06/policy_brief_minority_women_entrepreneurs_building_skills_barr.pdf.
- 17 Kobe K (2012) "Small Business GDP: Update 2002 2010" Small Business Administration: Office of Advocacy, January.
- 18 Ibid.
- 19 Buchanan L (2015) "American Entrepreneurship Is Actually Vanishing. Here's Why? *Inc.*, May; https://www.inc.com/magazine/201505/leigh-buchanan/the-vanishing-startups-in-decline.html.
- 20 Fraiberger SP and Sundararajan A (2017) "Peer-to-Peer Rental Markets in the Sharing Economy" *NYU Stern School of Business Research Paper* (First version March 2015; current version September 2017); https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2574337.
- 21 Crain WM and Crain NV (2014) "The Cost of Federal Regulation to the U.S. Economy, Manufacturing and Small Business" National Association of Manufacturers, September 10.
- 22 Bosch D (2018) "Two Months to Go: Regulatory Budget Progress" American Action Forum, August 13; https://www.americanactionforum.org/insight/two-months-to-go-regulatory-budget-progress/.
- 23 Small Business Administration; https://www.sba.gov/sites/default/files/Business-Survival.pdf.
- 24 Dawson JW and Seater JJ (2013) "Federal regulation and aggregate economic growth" *Journal* of *Economic Growth* Vol. 18, No 2, June, pp 137 177.
- 25 Ibid.
- 26 Coffey B, McLaughlin, PA, and Peretto P (2016) "What If the US Regulatory Burden Were Its Own Country?," *Mercatus Working Paper*, April; https://www.mercatus.org/system/files/ Coffey-Cumulative-Cost-Regs-v3.pdf.
- 27 Brannon I and Batkins S "The Aggregate Economic Cost of New Labor Market Regulations" Center for Manufacturing Research; https://www.nam.org/Data-and-Reports/Reports/ Labor-Market-Regulations/LaborMarketRegulations-study/.
- 28 Ibid.
- 29 Sobel RS, Clark JR, and Lee DR (2007) "Freedom, barriers to entry, entrepreneurship, and economic progress" *Review of Austrian Economics* 20:221-235.
- 30 Calcagno PT and Sobe RS (2014) "Regulatory costs on entrepreneurship and establishment employment size" *Small Business Economics*, March Volume 42, Issue 3, pp 541–559.

- 31 Ibid. (emphasis added)
- 32 Bailey J and Thomas D (2015) "Regulating Away Competition The Effect of Regulation on Entrepreneurship and Employment" *Mercatus Working Paper*, September; https://www.mercatus.org/system/files/Bailey-Regulation-Entrepreneurship.pdf.
- 33 Ibid.
- 34 Crain WM and Crain NV (2014) "The Cost of Federal Regulation to the U.S. Economy, Manufacturing and Small Business" National Association of Manufacturers, September 10.
- 35 (2017) "The Regulatory Impact on Small Business: Complex. Cumbersome. Costly" U.S. Chamber of Commerce Foundation, March.
- 36 Dunkelberg WC and Wade H (2019) "NFIB Small Business Economic Trends" NFIB, January; https://www.nfib.com/assets/SBET-Jan-2019.pdf.
- 37 (2017) "2017 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act" Office of Management and Budget: Office of Information and Regulatory Affairs.
- 38 Crews CW (2018) "Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State" Competitive Enterprise Institute.
- 39 Simkovic M (2018) "Measuring Regulation Based on Industry Response" *The CLS Blue Sky Blog: Columbia Law School's Blog on Corporations and the Capital Markets*, August 9.
- 40 The methodology is developed in: Simkovic M and Zhang MB (2019) "Measuring Regulation" *Working Paper*, January; https://ssrn.com/abstract=3205589. The employment data is available at: https://www.bls.gov/oes/,
- 41 Winegarden W (2015) *The 50-State Small Business Regulation Index* Pacific Research Institute, July; https://www.pacificresearch.org/the-50-state-small-business-regulation-index/.
- 42 Ibid.
- (2015) "Oregon Workers' Compensation Premium Rate Ranking: Calendar Year 2014" Oregon Department of Consumer and Business Services, February. For the updated rankings see:
 (2018) "2018 Oregon Workers' Compensation Premium Rate Ranking Summary" Oregon Department of Consumer and Business Services, October.
- 44 The number of licensed job categories is from: Summers, Adam B. (2007) "Occupational Licensing: Ranking the States and Exploring Alternatives" *Reason Foundation*, August. The share of workforce licensed or certified is from: Kleiner, Morris M. (2015) "Reforming Occupational Licensing Policies" *The Hamilton Project*, January.
- 45 Department of Labor; https://www.dol.gov/whd/state/stateMinWageHis.htm.

- 46 The National Conference of State Legislatures, http://www.ncsl.org/research/labor-and-employment/state-family-and-medical-leave-laws.aspx; and (2012) "Expecting Better: A Stateby-State Analysis of Laws That Help New Parents" national partnership for women & families, May: 2nd edition.
- 47 "Average Employer Contribution Rates by State" *U.S. Department of Labor*; https://oui.doleta. gov/unemploy/avg_employ.asp.
- 48 Thompson M "Federal Laws on Short-Term Disability at Work" *Chron.com*; https://smallbusiness.chron.com/federal-laws-shortterm-disability-work-40553.html.
- 49 Alternative categorizations (such as by quintiles) yielded similar patterns.
- 50 Binion B (2019) "Minimum Wage Hikes in New York City Causes Restaurants to Eliminate Jobs, Cut Hours, Raise Prices" *Reason*, January 24; https://reason.com/blog/2019/01/24/minimum-wage-hikes-threaten-new-york-cit.
- 51 See: NCSL State Occupational Licensing Statute Database; http://www.ncsl.org/research/labor-and-employment/occupational-licensing-statute-database.aspx.
- (2015) "Oregon Workers' Compensation Premium Rate Ranking: Calendar Year 2014" Oregon Department of Consumer and Business Services, February. For the updated rankings see:
 (2018) "2018 Oregon Workers' Compensation Premium Rate Ranking Summary" Oregon Department of Consumer and Business Services, October.

About the Author

Wayne H. Winegarden, Ph.D. is a Senior Fellow in Business and Economics, Pacific Research Institute, as well as the Principal of Capitol Economic Advisors.

Dr. Winegarden has 20 years of business, economic, and policy experience with an expertise in applying quantitative and macroeconomic analyses to create greater insights on corporate strategy, public policy, and strategic planning. He advises clients on the economic, business, and investment implications from changes in broader macroeconomic trends and government policies. Clients have included Fortune 500 companies, financial organizations, small businesses, state legislative leaders, political candidates and trade associations.

Dr. Winegarden's columns have been published in the *Wall Street Journal, Chicago Tribune, Investor's Business Daily, Forbes.com*, and *Townhall.com*. He was previously economics faculty at Marymount University, has testified before the U.S. Congress, has been interviewed and quoted in such media as CNN and Bloomberg Radio, and is asked to present his research findings at policy conferences and meetings. Previously, Dr. Winegarden worked as a business economist in Hong Kong and New York City; and a policy economist for policy and trade associations in Washington D.C. Dr. Winegarden received his Ph.D. in Economics from George Mason University.

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