

## Research



# Update: Obamacare's Impact on Small Business Wages and Employment

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## Executive Summary

Research from the American Action Forum (AAF) finds regulations from the Affordable Care Act (ACA) are driving up health care premiums and are costing small business employees at least \$19 billion in lost wages annually. These figures varied by state, but in 2015 the ACA cost year-round workers \$2,095, \$2,134, and \$2,260 in Ohio, New York, and North Dakota, respectively. Premium increases, a prospect regulators predicted when issuing the first ACA regulations, also significantly diminished the number of business establishments and jobs nationwide. Across the country, small businesses (20-99 workers) lost 295,030 jobs, 10,130 business establishments, and \$4.7 billion in total wage earnings. Florida lost 17,950 jobs; Ohio lost 19,000; Pennsylvania lost 15,680; and Texas lost 28,010 jobs due to higher sensitivity to rising health care premiums and the ACA.

## Introduction

Two years ago, [AAF examined](#) the intersection of rising premiums, ACA regulations, and the impact on the labor market. We found \$22 billion in lost pay and hundreds of thousands of fewer jobs in small businesses. After two years of additional data, premiums continue to rise, and with a greater [ACA regulatory burden](#), the effects on the labor market are just as dire.

Using data from the U.S. Census Bureau, the Medical Expenditure Panel Survey (MEPS), and Bureau of Labor Statistics (BLS), AAF once again examined the impact of premiums on weekly pay, employment, business establishments, and total wage earnings before and after the ACA became law. Studying the effect of ACA regulations on the average premium, average premium paid by employers, and average premium paid by employees, AAF employed a series of regression analyses to test the impact of rising premiums on the labor market.

We found that since the ACA became law, among small businesses, the rise in premiums has been associated with \$19 billion in lost wages, 10,130 fewer business establishments, and nearly 300,000 lost jobs, with seven states losing more than 10,000 jobs, all results consistent with our previous research. Given the premium spikes in some states, 17 percent to 47 percent, it is not difficult to understand how the labor market reacts to the significant increase in health care costs. In fact, regulators predicted many of these increases when they first implemented the law.

## Overview of Obamacare and Small Businesses

As AAF has detailed during the past six years, regulations from the ACA have imposed significant burdens on

individuals, states, and small businesses. According to the latest data, final rules alone have generated [\\$51 billion](#) in costs and more than 172 million hours of paperwork compliance. To put that in perspective, it would take more than 86,200 employees working full-time (2,000 hours annually) to complete a year of new ACA paperwork, roughly the population of Miami Beach, FL. It should come as no surprise the paperwork imposition of the Department of Health and Human Services is at an [all-time high](#).

What do those figures mean for the average American? Regulatory costs are generally borne in three ways: lower pay for employees, lower returns for shareholders, or higher prices for consumers. For the ACA's litany of regulations, higher health care premiums are highly probable. AAF has displayed ample evidence of significant increases and when regulators first implemented parts of the ACA, they predicted notable spikes as well.

For example, in its interim final rule for preventive care, the [administration concluded](#), "premiums will increase by approximately 1.5 percent." Likewise, in a post-ACA rule for preexisting conditions, [regulators predicted](#) annual premiums could increase by up to 6.6 percent. Regulators understood that by adding hundreds of new regulations, mandatory coverage, and a web of insurance rules that limit low-cost options, premiums would spike. It turns out that regulators were largely correct. Premiums have risen considerably across the nation since the ACA became law. Based on the most recent MEPS data, employer premium increases in states have averaged 26.7 percent.

The nation should not expect that mandated coverage, \$51 billion in regulatory burdens, a 26 percent increase in employer health care costs, and 172 million in paperwork burden hours to exist in a vacuum. For the smallest businesses, with the narrowest of margins, these burdens have resulted in lower employee pay, fewer establishments, and nearly 300,000 fewer jobs.

## Methodology

In this paper, we gauge the ACA's impact on small business sensitivity to health insurance premiums by estimating the relationship between health insurance premiums and labor conditions both before it became law from 2003 to 2009 and after it became law from 2010 to 2015. We look at the relationship between health insurance premiums and average weekly pay, jobs, business establishments, and total wage earnings and compare the impacts in businesses with 20 to 49 workers to the impacts in businesses with 50 to 99 workers. Businesses with close to 50 workers likely have similar characteristics. Although there are a number of ACA-related regulations that impact each business size, only businesses with at least 50 full-time workers (defined as those who work 30 or more hours per week) must comply with the law's employer mandate. So by comparing companies with 20 to 49 workers to those with 50 to 99 workers, we can get a more precise idea of how the ACA has affected employer responsiveness to health insurance premiums, both for those who are required to provide health insurance and those who are not.

Moreover, one should not expect overall health insurance premiums to significantly relate to pay and employment in small businesses. Rather, labor conditions in small businesses would likely be more sensitive to what employers contribute to health insurance premiums, as that most directly reflects the actual cost employers face when providing health insurance. Accordingly, we test the impact of three types of premiums on pay, employment, and businesses: total premium, employer contribution, and employee contribution.

## Data and Empirical Model

To analyze the relationship between the ACA, health insurance premiums, and labor market conditions, we estimate how changes in premiums relate to state average weekly pay, employment, business establishments, and total wage earnings among businesses with 20 to 49 workers and those with 50 to 99 workers. We employ state-level labor market data from the Bureau of Labor Statistics (BLS) on average annual pay, employment, and business establishments for both business sizes.<sup>[1]</sup> Meanwhile, we use premium data from the Medical Expenditure Panel Survey (MEPS) for the same period.<sup>[2]</sup> Our data set includes observations on all 50 states in each year from 2003 to 2015.<sup>[3]</sup> Note that since our data set only goes through 2015 and the employer mandate did not take effect until 2016 for businesses with 50 to 99 full-time workers, any effects our modeling yields for the larger business size will likely reflect employers preparing for the mandate, rather than the direct effect of the mandate itself.

We perform a series of fixed effects regressions that estimate the impact of premiums on average weekly pay, total employment, total number of business establishments, and total wage earnings among firms with 20 to 49 workers and firms with 50 to 99 workers. Each regression contains both state and year effects. The use of state effects controls for characteristics that vary across states, but not over time, and the use of year effects controls for factors that vary over time, but not by state. The year effects help account for the macroeconomic forces during this period, such as the decline in employment during the Great Recession.

## Pre- and Post-ACA

Within each regression, we estimate the impact of premiums on weekly pay, employment, business establishments, and total wage earnings both before and after the ACA became law. We accomplish this by including an average premiums variable and an interaction term that multiplies average premiums by an ACA binary variable. For all pre-ACA years (2003-2006, 2008-2009), the binary variable equals zero and the interaction term drops from the model. As a result, the coefficient on the average premium variable estimates the impact of premiums before the ACA became law. However, for the post-ACA years (2010-2015), the ACA binary variable equals 1 and the sum of the coefficients for the average premium variable and the interaction term estimates the impact of premiums on employment and pay after the ACA became law.

## Three Types of Premiums

For each of the eight dependent variables, we run three different fixed effects regressions, using different types of premiums. This results in 24 regressions. We test how total average premium, average premium paid by employers, and average premium paid by employees relate to each of the eight dependent variables.<sup>[4]</sup> By testing the different types of premiums, we can more precisely examine how changes in employers' contribution to health insurance premiums have impacted workers in small businesses since the ACA became law.

## Additional Controls

In our model, we control for additional factors that may influence employment and pay. To control for state education levels, we include a variable for the percentage of working-age adults (25 years and older) who have a bachelor's degree.<sup>[5]</sup><sup>[6]</sup> We include the percentage of workers employed in the services industry, as this helps control for state industrial mix.<sup>[7]</sup> We also control for the state's top marginal tax rate<sup>[8]</sup> and population.<sup>[9]</sup><sup>[10]</sup>

Finally, any fixed effects model can face the problem of autocorrelation, in which a variable is correlated with itself over time and biases the results. Our model addresses this issue by using heteroskedasticity- and autocorrelation-consistent standard errors.

## Results

In assessing the results, we test the significance of the relationship between premiums and weekly pay, employment, business establishments, and total wage earnings both before and after the ACA became law.<sup>[11]</sup> In addition, we apply a test to the post-ACA coefficients to assess if the relationship is significantly different from the pre-ACA comparison groups. In most cases, we identify statistically significant evidence that employer contributions to premiums have been negatively related to wages, employment, and business establishments since the ACA became law. For each instance that we identify a negative association between premiums and wages, employment, and business establishments during the post-ACA period, we also find that the post-ACA trend is significantly different from the pre-ACA trend. In each of the following tables, we report the estimated coefficient on the premium variable (the pre-ACA effect) and the sum of the coefficients of the premium variable and ACA-premium interaction term (the post-ACA effect).

## Weekly Pay

Table 1 contains the results for average weekly pay.

Table 1: Impact on Weekly Pay				
Premium	Firms with 20 to 49 Workers		Firms with 50 to 99 Workers	
	Pre-ACA	Post-ACA	Pre-ACA	Post-ACA
Total Premium	0.094**	-0.012*	0.026	-0.109**
Employer Contribution	0.086**	-0.022**	0.044	-0.100***
Employee Contribution	-0.009	0.011	-0.020	0.017
*10 percent level of significance.				
**5 percent level of significance.				
***1 percent level of significance.				

For both business sizes, we find that increases in total premiums and employer contributions to premiums were associated with declines in average weekly pay after the ACA became law. For firms with 20 to 49 workers, prior to the ACA a one percent increase in total health insurance premiums was associated with a 0.094 percent increase in average weekly pay. After the ACA became law, however, a one percent increase in total premiums was associated with a 0.012 percent decrease in average weekly pay. Employer contributions to premiums had an even stronger negative relationship with weekly pay in the smaller firm category. Prior to the ACA, a one percent increase in employer contributions to health insurance premiums was associated with a 0.086 percent

increase in average weekly pay. But after the ACA became law, a one percent increase in employer contributions to premiums was associated with a 0.022 percent decrease in weekly pay.

The impact of health insurance premiums on average weekly pay after the ACA became law was much more pronounced among firms with 50 to 99 workers. During the pre-ACA period, total health insurance premiums and employer contributions to premiums were not associated with changes in average weekly pay. After the ACA law, however, a one percent increase in total health insurance premiums and employer contributions to premiums was associated with a 0.109 percent and 0.1 percent decrease in average weekly pay, respectively.

Finally, our results do not indicate any significant relationship between employee contributions to health insurance and weekly pay for either time period and firm size.

## Employment

Table 2 contains the results of the pre-ACA and post-ACA relationships between premiums and employment. While total premiums were not significantly associated with changes in employment with either firm size, employer contributions to premiums had a sizeable negative relationship with employment in smaller firms after the ACA became law.

Table 2: Impact on Jobs				
Premium	Firms with 20 to 49 Workers		Firms with 50 to 99 Workers	
	Pre-ACA	Post-ACA	Pre-ACA	Post-ACA
Total Premium	0.020	-0.055	-0.062	0.009
Employer Contribution	0.072**	-0.053**	-0.022	0.008
Employee Contribution	-0.055***	0.006***	-0.036**	0.000*
*10 percent level of significance.				
**5 percent level of significance.				
***1 percent level of significance.				

During the pre-ACA period a one percent increase in employer contributions to premiums was associated with a 0.072 percent increase in jobs in firms with 20 to 49 workers. After the ACA became law, however, a one percent increase in employer contributions to premiums was associated with a 0.053 percent decline in employment. Employer contributions to premiums in businesses with 50 to 99 workers, meanwhile, were not significantly related to employment during both the pre- and post-ACA periods.

The results also indicate that after the ACA became law, employee contributions to health insurance had a statistically significant positive relationship with employment. The magnitude of that effect, however, was small. Specifically, a one percent increase in employee contributions to premiums was only been associated with a 0.006 percent increase in employment in firms with 20 to 49 workers and just slightly above 0 percent increase in employment in firms with 50 to 99 workers.

## Business Establishments

Table 3 contains the results for the relationships between premiums and the number of business establishments for each firm size category. Just as with employment, we do not find evidence that changes in total health insurance premiums were associated with changes in the number of business establishments. But, what employers contribute to health insurance premiums was negatively associated with the number of business with 20 to 49 workers after the ACA became law.

Table 3: Impact on Business Establishments				
Premium	Firms with 20 to 49 Workers		Firms with 50 to 99 Workers	
	Pre-ACA	Post-ACA	Pre-ACA	Post-ACA
Total Premium	0.013	-0.054	-0.059	0.006
Employer Contribution	0.065**	-0.054**	-0.022	0.003
Employee Contribution	-0.055***	0.008***	-0.034**	0.005**
*10 percent level of significance.				
**5 percent level of significance.				
***1 percent level of significance.				

During the pre-ACA period, a one percent increase in employer contributions to premiums was significantly associated with a 0.065 percent increase in the number of businesses with 20 to 49 workers. After the ACA became law, however, a one percent increase in employer contributions to premiums was significantly associated with a 0.054 percent decrease in the number of those firms. Employer contributions to premiums, however, were not significantly associated with the number of firms with 50 to 99 workers during both the pre- and post-ACA periods.

Also like the employment results, the model yields statistically significant evidence that after the ACA became law, employee contributions to premiums were positively associated with both the number of businesses with 20 to 49 workers and the number with 50 to 99 workers. Once again, however, the relationships were small. A one percent increase in employee contributions to premiums were only associated with a 0.008 percent increase in the number of firms with 20 to 49 workers and a 0.005 percent increase in the number with 50 to 99 workers.

## Total Wage Earnings

Table 4 contains the results for the relationships between premiums and total wage earnings. Just as with employment and business establishments, we do not find evidence that changes in total health insurance premiums were associated with changes in total wage earnings. But, after the ACA became law, what employers contributed to health insurance premiums was negatively associated with total wage earnings in businesses 20 to 49 workers. Since total wage earnings takes into account both changes in pay and employment, these results just provide more evidence that increases in premiums after the ACA became law was particularly detrimental for workers in firms with 20 to 49 employees.

Table 4: Impact on Total Wage Earnings				
Premium	Firms with 20 to 49 Workers		Firms with 50 to 99 Workers	
	Pre-ACA	Post-ACA	Pre-ACA	Post-ACA

Total Premium	0.114	-0.067	-0.035	-0.100
Employer Contribution	0.157***	-0.076***	0.023	-0.092†
Employee Contribution	-0.063***	0.017***	-0.056*	0.017*
*10 percent level of significance.				
**5 percent level of significance.				
***1 percent level of significance.				
†Estimate significantly different from comparison group, but not from 0.				

During the pre-ACA period, a one percent increase in employer contributions to premiums was significantly associated with a 0.157 percent increase in total wage earnings in firms with 20 to 49 workers. After the ACA became law, however, a one percent increase in employer contributions was significantly associated with a 0.076 percent decrease in total wage earnings in those businesses. Interestingly, the relationship between employer contributions and total wage earnings in firms with 50 to 99 workers during the post-ACA period was not significantly different from zero, but negative and significantly different from the pre-ACA coefficient.

Also like the employment and business establishment results, the model yields statistically significant evidence that after the ACA became law, employee contributions to premiums were positively associated with total wage earnings in both business sizes. But, the relationships were small relative to the effects of employer contributions to premiums. A one percent increase in employee contributions to premiums was only associated with a 0.017 percent increase in total wage earnings for both firm sizes.

## Implications

We consistently find that since the ACA became law, employer contributions to health insurance premiums have been negatively related to weekly pay, employment, business establishments, and total wage earnings. Although the estimates might appear small, when one considers how much premiums rose during the post-ACA period, the cumulative costs are notable. Before the ACA in 2009, employer contributions to health insurance premiums averaged \$3,713.50 annually across all 50 states. In 2015, state average employer contributions were \$4,703.58, a 26.7 percent increase.

Table 6 contains the post-ACA changes in employer contributions to health insurance premiums in each state.

Table 6: Employer Contributions to Health Insurance Premiums			
State	2009	2015	Percent Change
U.S. State Average	\$3,713.50	\$4,703.58	26.7%
Alabama	\$3,622.00	\$4,505.00	24.4%
Alaska	\$5,205.00	\$6,456.00	24.0%
Arizona	\$3,507.00	\$4,555.00	29.9%
Arkansas	\$2,967.00	\$3,998.00	34.7%
California	\$3,836.00	\$4,822.00	25.7%
Colorado	\$3,599.00	\$4,559.00	26.7%



Connecticut	\$3,827.00	\$4,826.00	26.1%
Delaware	\$3,854.00	\$5,056.00	31.2%
Florida	\$3,519.00	\$4,491.00	27.6%
Georgia	\$3,729.00	\$4,371.00	17.2%
Hawaii	\$3,655.00	\$4,978.00	36.2%
Idaho	\$3,486.00	\$4,703.00	34.9%
Illinois	\$3,717.00	\$4,814.00	29.5%
Indiana	\$3,779.00	\$4,579.00	21.2%
Iowa	\$3,598.00	\$4,319.00	20.0%
Kansas	\$3,260.00	\$4,205.00	29.0%
Kentucky	\$3,336.00	\$4,868.00	45.9%
Louisiana	\$3,905.00	\$4,536.00	16.2%
Maine	\$4,138.00	\$4,700.00	13.6%
Maryland	\$3,765.00	\$4,714.00	25.2%
Massachusetts	\$3,947.00	\$4,929.00	24.9%
Michigan	\$3,970.00	\$4,680.00	17.9%
Minnesota	\$3,606.00	\$4,320.00	19.8%
Mississippi	\$3,475.00	\$4,159.00	19.7%
Missouri	\$3,394.00	\$4,519.00	33.1%
Montana	\$3,778.00	\$5,069.00	34.2%
Nebraska	\$3,442.00	\$4,423.00	28.5%
Nevada	\$3,785.00	\$4,702.00	24.2%
New Hampshire	\$4,140.00	\$4,998.00	20.7%
New Jersey	\$3,856.00	\$4,679.00	21.3%
New Mexico	\$3,601.00	\$4,585.00	27.3%
New York	\$4,046.00	\$5,298.00	30.9%
North Carolina	\$3,678.00	\$4,531.00	23.2%
North Dakota	\$3,267.00	\$4,640.00	42.0%
Ohio	\$3,196.00	\$4,718.00	47.6%
Oklahoma	\$3,428.00	\$4,314.00	25.8%
Oregon	\$4,053.00	\$4,924.00	21.5%
Pennsylvania	\$3,832.00	\$5,112.00	33.4%



Rhode Island	\$3,852.00	\$5,010.00	30.1%
South Carolina	\$3,605.00	\$4,660.00	29.3%
South Dakota	\$3,372.00	\$4,436.00	31.6%
Tennessee	\$3,539.00	\$4,029.00	13.8%
Texas	\$3,508.00	\$4,574.00	30.4%
Utah	\$3,485.00	\$4,596.00	31.9%
Vermont	\$3,993.00	\$4,500.00	12.7%
Virginia	\$3,530.00	\$4,624.00	31.0%
Washington	\$4,283.00	\$5,314.00	24.1%
West Virginia	\$3,615.00	\$4,882.00	35.0%
Wisconsin	\$4,121.00	\$4,666.00	13.2%
Wyoming	\$3,974.00	\$5,233.00	31.7%

The increase in employer contributions to health insurance premiums generally hovered around 25 percent. But the increases in some states have been quite severe. For instance, between 2009 and 2015 employer contributions to premiums increased 36.2 percent in Hawaii, 42 percent in North Dakota, 45.9 percent in Kentucky, and 47.6 percent in Ohio.

What does this mean for weekly pay? For businesses with 20 to 49 workers, we found that a one percent increase in employer contributions to premiums was associated with a 0.022 percent decrease in weekly pay after the ACA became law. So a 26.7 percent increase was associated with a state average 0.59 percent decrease in average weekly pay.

Nationally, in 2015 about 20 million people worked in businesses with 20 to 49 employees. Conservatively assuming that half of them worked year-round and the other half worked only half the year, in 2015 the ACA cost these workers about \$3.9 billion.

Table 7 illustrates the declines in weekly pay and annual earnings in each state.

Table 7: Weekly Pay Loss in Firms with 20 to 49 Employees			
State	Loss in Weekly Pay	Loss in Annual Earnings	Loss in Total Earnings (in thousands) <a href="#">[12]</a>
U.S. State Average/Total	\$4.73	\$236	<b>\$3,879,800</b>
Alabama	\$3.91	\$196	\$42,500
Alaska	\$4.90	\$245	\$8,000
Arizona	\$5.07	\$253	\$62,200
Arkansas	\$5.07	\$254	\$33,700
California	\$5.38	\$269	\$464,100
Colorado	\$5.38	\$269	\$82,200

Connecticut	\$6.50	\$325	\$59,900
Delaware	\$5.84	\$292	\$13,000
Florida	\$4.84	\$242	\$217,900
Georgia	\$3.11	\$156	\$70,100
Hawaii	\$6.16	\$308	\$21,700
Idaho	\$4.82	\$241	\$18,700
Illinois	\$6.19	\$310	\$174,700
Indiana	\$3.24	\$162	\$50,900
Iowa	\$3.21	\$161	\$27,200
Kansas	\$4.88	\$244	\$36,700
Kentucky	\$7.28	\$364	\$72,000
Louisiana	\$2.76	\$138	\$33,000
Maine	\$2.05	\$102	\$6,900
Maryland	\$5.25	\$262	\$77,400
Massachusetts	\$5.94	\$297	\$105,100
Michigan	\$3.09	\$155	\$61,200
Minnesota	\$3.74	\$187	\$53,700
Mississippi	\$2.76	\$138	\$16,500
Missouri	\$5.54	\$277	\$82,500
Montana	\$5.03	\$251	\$14,500
Nebraska	\$4.48	\$224	\$24,600
Nevada	\$4.05	\$202	\$26,500
New Hampshire	\$3.95	\$197	\$14,900
New Jersey	\$4.79	\$240	\$96,400
New Mexico	\$4.10	\$205	\$19,500
New York	\$7.92	\$396	\$356,500
North Carolina	\$3.73	\$187	\$89,100
North Dakota	\$8.69	\$434	\$25,100
Ohio	\$7.99	\$400	\$228,800
Oklahoma	\$4.28	\$214	\$40,800
Oregon	\$3.62	\$181	\$39,400
Pennsylvania	\$6.43	\$321	\$208,200

Rhode Island	\$5.05	\$252	\$14,200
South Carolina	\$4.37	\$219	\$46,900
South Dakota	\$4.79	\$240	\$11,800
Tennessee	\$2.30	\$115	\$33,200
Texas	\$6.09	\$305	\$388,300
Utah	\$5.13	\$256	\$39,000
Vermont	\$2.01	\$101	\$3,500
Virginia	\$6.00	\$300	\$126,400
Washington	\$4.51	\$226	\$74,200
West Virginia	\$5.65	\$282	\$22,200
Wisconsin	\$2.11	\$106	\$32,700
Wyoming	\$5.61	\$281	\$10,300

In 2015, an average year-round worker lost \$236. In the states with large premium increases, the pay cuts were substantial. For instance, year-round workers in Ohio and North Dakota lost an average \$400 and \$434.

For businesses with 50 to 99 employees, who must comply with the employer mandate in addition to the ACA's other regulations, the law's impact on weekly pay has been even more profound. For these larger firms, we found that a one percent increase in employer contributions to premiums was associated with a 0.1 percent decrease in weekly pay after the ACA became law. So the 26.7 percent increase means a 2.7 percent decrease in state average weekly pay in firms with 50 to 99 workers.

Nationally, in 2015 about 15.4 million people worked in businesses with 50 to 99 employees. Conservatively assuming that half of them worked year round and the other half worked only half the year, the ACA cost these workers about \$15.4 billion in 2015. Combining the two business categories, in 2015 ACA regulations cost workers in businesses with 20 to 99 workers at least \$19.3 billion.

Table 8 contains the decline in weekly and annual pay in firms with 50 to 99 workers in each state.

Table 8: Weekly Pay Loss in Firms with 50 to 99 Workers				
State	Loss in Weekly Pay	Loss in Annual Earnings	Loss in Total Earnings <sup>[13]</sup>	
U.S. State Average/Total	\$24.03	\$1,202	<b>\$15,446,700</b>	
Alabama	\$19.78	\$989	\$149,200	
Alaska	\$24.95	\$1,248	\$28,500	
Arizona	\$25.50	\$1,275	\$268,100	
Arkansas	\$24.60	\$1,230	\$111,500	
California	\$28.16	\$1,408	\$2,006,500	
Colorado	\$28.18	\$1,409	\$300,700	

Connecticut	\$35.82	\$1,791	\$239,400	
Delaware	\$27.03	\$1,352	\$43,600	
Florida	\$23.94	\$1,197	\$822,200	
Georgia	\$16.33	\$816	\$289,300	
Hawaii	\$28.52	\$1,426	\$80,400	
Idaho	\$25.48	\$1,274	\$68,600	
Illinois	\$31.70	\$1,585	\$753,200	
Indiana	\$16.16	\$808	\$203,800	
Iowa	\$15.65	\$783	\$100,000	
Kansas	\$24.08	\$1,204	\$133,600	
Kentucky	\$36.80	\$1,840	\$269,800	
Louisiana	\$13.63	\$681	\$123,000	
Maine	\$10.14	\$507	\$23,200	
Maryland	\$24.98	\$1,249	\$282,500	
Massachusetts	\$31.48	\$1,574	\$440,400	
Michigan	\$16.09	\$805	\$259,900	
Minnesota	\$19.45	\$973	\$228,600	
Mississippi	\$12.87	\$644	\$57,400	
Missouri	\$27.21	\$1,360	\$310,900	
Montana	\$24.81	\$1,241	\$44,700	
Nebraska	\$23.31	\$1,165	\$81,500	
Nevada	\$20.92	\$1,046	\$100,100	
New Hampshire	\$18.56	\$928	\$49,000	
New Jersey	\$25.73	\$1,286	\$398,400	
New Mexico	\$20.41	\$1,020	\$63,300	
New York	\$42.67	\$2,134	\$1,400,100	
North Carolina	\$18.65	\$933	\$342,100	
North Dakota	\$45.20	\$2,260	\$95,500	
Ohio	\$41.89	\$2,095	\$994,800	
Oklahoma	\$21.85	\$1,093	\$142,300	
Oregon	\$18.95	\$947	\$137,600	
Pennsylvania	\$34.22	\$1,711	\$847,300	

Rhode Island	\$25.28	\$1,264	\$49,700	
South Carolina	\$20.42	\$1,021	\$162,800	
South Dakota	\$24.16	\$1,208	\$40,500	
Tennessee	\$11.35	\$568	\$132,100	
Texas	\$32.26	\$1,613	\$1,572,600	
Utah	\$26.92	\$1,346	\$145,900	
Vermont	\$9.73	\$486	\$12,000	
Virginia	\$31.64	\$1,582	\$499,600	
Washington	\$23.98	\$1,199	\$289,600	
West Virginia	\$27.77	\$1,388	\$83,200	
Wisconsin	\$11.00	\$550	\$135,500	
Wyoming	\$29.02	\$1,451	\$29,300	

On average, year-round workers in businesses with 50 to 99 employees lost \$1,202 in 2015. But, the average masks the pain felt among workers in some states. For instance, the ACA cost year-round workers \$2,095, \$2,134, and \$2,260 in Ohio, New York, and North Dakota, respectively.

By 2015, the ACA's impact on employment, business establishments, and total wage earnings for firms with 20 to 49 workers was also quite substantial. For this firm size, we found that after the ACA became law, a one percent increase in employer contributions to premiums was associated with a 0.053 percent decrease in employment, 0.054 percent decrease in the number of business establishments, and a 0.076 percent decrease in total wage earnings. Considering the premium increases across all 50 states, this translates to a loss of 295,0300 jobs, 10,130 business establishments, and \$4.7 billion in total wage earnings.

Table 9 illustrates the job, business, and total wage earnings lost in all 50 states.

**Table 9: Employment, Business Establishment, and Total Wage Earnings Losses among Firms with 20 to 49 workers<sup>[14]</sup>**

State	Jobs		Business Establishments		Total Wage Earnings (in thousands)	
	Number	Percent	Number	Percent	Number	Percent
U.S. State Total	295,030	1.45%	10,130	1.48%	\$4,708,900	2.07%
Alabama	3,820	1.30%	130	1.33%	\$51,300	1.85%
Alaska	560	1.28%	20	1.31%	\$9,600	1.82%
Arizona	5,390	1.59%	190	1.63%	\$76,600	2.26%
Arkansas	3,340	1.85%	120	1.89%	\$40,900	2.63%
California	31,980	1.37%	1,120	1.40%	\$572,100	1.95%
Colorado	5,880	1.42%	200	1.45%	\$99,300	2.02%
Connecticut	3,470	1.39%	120	1.42%	\$72,300	1.98%

Delaware	1,000	1.66%	30	1.70%	\$15,700	2.36%
Florida	17,950	1.47%	620	1.50%	\$265,700	2.09%
Georgia	5,570	0.92%	190	0.94%	\$84,200	1.30%
Hawaii	1,850	1.93%	60	1.97%	\$26,300	2.74%
Idaho	1,970	1.86%	70	1.90%	\$22,700	2.64%
Illinois	12,040	1.57%	410	1.61%	\$211,300	2.24%
Indiana	4,790	1.13%	170	1.15%	\$61,300	1.60%
Iowa	2,440	1.07%	80	1.09%	\$32,700	1.52%
Kansas	3,150	1.55%	110	1.58%	\$44,400	2.20%
Kentucky	6,620	2.45%	230	2.50%	\$87,900	3.48%
Louisiana	2,770	0.86%	100	0.88%	\$39,600	1.22%
Maine	660	0.72%	20	0.74%	\$8,300	1.03%
Maryland	5,360	1.34%	180	1.37%	\$93,400	1.91%
Massachusetts	6,350	1.33%	220	1.36%	\$126,900	1.88%
Michigan	5,080	0.95%	170	0.97%	\$73,600	1.35%
Minnesota	4,090	1.06%	140	1.08%	\$64,600	1.50%
Mississippi	1,690	1.05%	60	1.07%	\$19,800	1.49%
Missouri	7,150	1.77%	250	1.81%	\$100,100	2.51%
Montana	1,430	1.82%	50	1.86%	\$17,600	2.59%
Nebraska	2,260	1.52%	80	1.55%	\$29,700	2.16%
Nevada	2,280	1.29%	80	1.32%	\$31,900	1.83%
New Hampshire	1,130	1.11%	40	1.13%	\$18,000	1.57%
New Jersey	6,180	1.14%	210	1.16%	\$116,100	1.62%
New Mexico	1,880	1.46%	60	1.49%	\$23,600	2.07%
New York	20,140	1.65%	690	1.69%	\$433,200	2.34%
North Carolina	7,970	1.24%	270	1.26%	\$107,400	1.76%
North Dakota	1,770	2.24%	60	2.29%	\$30,600	3.18%
Ohio	19,900	2.54%	680	2.59%	\$279,600	3.61%
Oklahoma	3,560	1.38%	120	1.41%	\$49,300	1.96%
Oregon	3,370	1.15%	120	1.17%	\$47,500	1.63%
Pennsylvania	15,680	1.78%	530	1.82%	\$252,600	2.53%
Rhode Island	1,230	1.60%	40	1.64%	\$17,200	2.28%

South Carolina	4,540	1.56%	160	1.59%	\$56,700	2.22%
South Dakota	1,120	1.68%	40	1.72%	\$14,300	2.39%
Tennessee	2,870	0.74%	100	0.75%	\$39,900	1.05%
Texas	28,010	1.62%	950	1.66%	\$470,300	2.30%
Utah	3,500	1.70%	120	1.74%	\$47,300	2.41%
Vermont	320	0.68%	10	0.69%	\$4,200	0.96%
Virginia	9,440	1.65%	320	1.69%	\$153,000	2.35%
Washington	5,700	1.28%	200	1.31%	\$89,500	1.82%
West Virginia	1,990	1.87%	70	1.91%	\$26,900	2.65%
Wisconsin	2,940	0.71%	100	0.72%	\$39,300	1.00%
Wyoming	840	1.69%	30	1.73%	\$12,500	2.40%

For each metric, there was a considerable range, with Vermont and Ohio consistently home to the smallest and largest declines, respectively. The jobs lost in businesses with 20 to 49 workers ranged from 0.68 percent in Vermont to 2.54 percent in Ohio. Also, after the ACA became law, business establishments with 20 to 49 workers only declined by 0.69 percent in Vermont, while they declined by 2.59 percent in Ohio. Finally, Vermont and Ohio were also home to the smallest and largest declines in total wage earnings. In Vermont, workers in businesses with 20 to 49 employees lost \$4.2 million (0.96 percent) in total wage earnings in 2015 and in Ohio workers in those businesses lost \$279.6 million (3.61 percent).

## Conclusion

There are many reasons policymakers have called for significant amendments to the ACA. Higher premiums are typically cited as a top concern. However, these higher premiums have broader consequences for the labor market. As AAF's research has shown, ACA regulations have contributed to at least \$19 billion in lost wages, 10,000 fewer establishments, and nearly 300,000 lost jobs.

[1] Weekly pay, employment, business establishment, and total wage earnings data come from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages, available at <http://data.bls.gov/cgi-bin/dsrv?en>.

[2] Premium data come from the Agency for Healthcare Research and Quality's Medical Expenditure Panel Survey, "Average total single premium (in dollars) per enrolled employee at private-sector establishments that offer health insurance by firm size and State: United States" (Table II.C.1) and "Average total employee contribution (in dollars) per enrolled employee for single coverage at private-sector establishments that offer insurance by firm size and State: United States" (Table II.C.2), each year from 2003 to 2012, except 2007, available at [http://meps.ahrq.gov/mepsweb/data\\_stats/quick\\_tables\\_search.jsp?component=2&subcomponent=2](http://meps.ahrq.gov/mepsweb/data_stats/quick_tables_search.jsp?component=2&subcomponent=2).

[3] The year 2007 was excluded because no MEPS data are available for that year.

[4] MEPS provides total average premiums and average premiums paid by employees. We estimate average premiums paid by employers by subtracting employee premiums from total premiums.



[5] Educational attainment data from 2003 to 2006 are from the Census Bureau's Current Population Survey data, available at <https://www.census.gov/hhes/socdemo/education/data/cps/index.html>.

[6] Educational attainment data from 2007 to 2015 are from the Census Bureau's American Community Survey 1-Year Estimates, available at American Fact Finder, <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

[7] Percent of workers employed in services industry is calculated by dividing the number of employees in services by total number of nonfarm workers, available at the Bureau of Labor Statistics, <http://data.bls.gov/cgi-bin/dsrv?sm>.

[8] Tax data are from the Tax Foundation, available at <http://taxfoundation.org/tax-topics/state-taxes> for each year from 2003 to 2014 and <http://taxfoundation.org/article/state-individual-income-tax-rates-and-brackets-2015> for 2015.

[9] For each year from 2003 to 2009 we employ the Census Bureau's 2000-2010 population intercensal estimates, <https://www.census.gov/popest/data/intercensal/index.html>.

[10] For each year from 2010 to 2015, we employ the Census Bureau's vintage 2015 population estimates, <https://www.census.gov/popest/data/state/totals/2015/index.html>.

[11] Since the post-ACA relationship between premiums and wages, employment, and business establishments is determined by the combination of two coefficients, we test whether they are jointly significantly different from zero.

[12] State figures may not add precisely to U.S. total due to rounding.

[13] State figures may not add precisely to U.S. total due to rounding.

[14] State figures may not add precisely to total due to rounding.