



ObamaCare's Impact on Small Business Wages and Employment

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Executive Summary Introduction

American Action Forum (AAF) research finds that Affordable Care Act (ACA) regulations are reducing small business (20 to 99 workers) pay by at least \$22.6 billion annually. In addition, ACA regulations and rising premiums have reduced employment by more than 350,000 jobs nationwide, with five states losing more than 20,000 jobs.

The relationship between rising premiums and lower pay was already well known in academic literature. Our research simply measured how the ACA has affected the relationship between health insurance premiums, small business wages, and employment. While there was no significant relationship between healthcare premiums and employment before the ACA, since 2010 small businesses have slowly started shedding jobs and reducing wages. We found that, on average, employees who work a full year for a business with 50-99 employees lose \$935 annually due to ACA regulations, while employees of businesses with 20-49 employees, on average lose \$827.50 annually.

Introduction

The ACA imposes several burdensome regulations that could potentially harm job and wage growth, including the employer mandate and requirements on the generosity of coverage. Under the ACA, employers with 50 or more full-time employees are required to provide health insurance for their workers or pay a fine. In addition, the ACA enforces rules that govern the type of insurance plans they can provide and restricts their options in choosing low-cost coverage. When employers are required to provide health insurance and their low-cost options are limited, costs will naturally rise and companies will be more responsive to changes in insurance premiums. As a result, employees are less insulated from insurance premium growth, and if premiums rise considerably under the ACA, then employers could be more likely to offset those costs by cutting jobs or wages.

Today, the central difficulty in analyzing the labor market implications of ACA regulations is that most significant rules have only been recently implemented. For instance, the employer mandate was scheduled for January 1, 2014, but the White House delayed the mandate to [January 1, 2015](#), and then delayed it again to January 1, 2016 for businesses with 50 to 99 employees. Although central portions of the ACA are not yet fully enforced, however, it does not mean the law is not affecting the labor market. As employers have prepared for the coming regulations, it is likely that they have become more sensitive to premiums.

Methodology

In this paper, we examine whether businesses have become responsive to health insurance premiums since the ACA and whether that relationship is affected by the additional requirements on businesses with more than 50 employees. We estimate the relationship between health insurance premiums and labor conditions both before and after the ACA. Moreover, it is important to compare companies with fewer than 50 employees to those with more than 50. Businesses with close to 50 employees are likely to have similar characteristics. However, under the ACA, one group does not have to provide health insurance while the other does. By



comparing these two groups, we can get a more precise idea of how the ACA is affecting employer responsiveness to health insurance premiums, both for those who are required to provide health insurance and those who are not. To accomplish this, we separately examine firms with 20 to 49 employees and those with 50 to 99 employees.

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 annual average state employment and average weekly pay in private businesses with 20 to 49 workers and those with 50 to 99 workers before and after the ACA. We employ state-level labor market data from the Bureau of Labor Statistics (BLS) and use average annual employment and average weekly pay for both business sizes.¹ Meanwhile, we use premium data from the Medical Expenditure Panel Survey (MEPS) for the same period.² Our data set includes observations on all 50 states in each year from 2003 to 2012.³

We perform a series of fixed effects regressions that estimate the impact of premiums on average weekly pay in firms with 20 to 49 workers, average weekly pay in firms with 50 to 99 workers, average total annual employment in firms with 20 to 49 workers, and average total annual employment in 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 industries, but not over time, and the use of year effects controls for factors that vary over time, but not by state. The year effects account for macroeconomic forces during this period, such as loss in employment due to the Great Recession.

Pre- and Post-ACA

Within each regression, we estimate the impact of premiums on weekly pay (or employment) both before and after the ACA became law. We are able to accomplish this by including an average premiums variable and an interaction term that multiplies average premiums by an ACA binary variable. For all years pre-ACA (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. However, for the post-ACA years (2010-2012), the ACA binary variable equals 1 and the sum of the coefficients for the

¹ Employment and weekly pay 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.

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



average premium variable and the interaction term estimates the impact of premiums on employment and pay after the ACA.

Three Types of Premiums

For each of the four dependent variables, we run three different fixed effects regressions, using different types of premiums. This results in 12 regressions. We test how total average premium, average premium paid by employers, and average premium paid by employees relate to each of the four dependent variables.⁴ By testing the different types of premiums, we examine how total premiums relate to decisions on number of workers and employee pay and identify the part of the premium that affects wages and jobs.

Separating employer premium from employee premium has the main benefit of providing a more direct link between additional costs to the employer and resulting pay cuts or job losses for the employees. However, the employee and employer premium data are far noisier than the total premium data, which are the sum of the two. Although less direct, total premiums provide a more precise estimate of the relationship between premiums and pay or employment.⁵

Additional Controls

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

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

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 Accordingly, the more specific the type of premium, the noisier it is. For instance, MEPS also provides data on average premiums in businesses with 25 to 99 workers, which almost directly apply to the business sizes we analyze in this study. These premium figures also provide a more direct link between premiums and labor market conditions for businesses with 20 to 49 workers and those with 50 to 99 workers. However, since these premium figures are much noisier than average premiums faced by all employers, we do not believe these data are as reliable.

⁶ Education data are from the Census Bureau's American Community Survey 1-Year Estimates for each year from 2003 to 2012, available at www.census.gov

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

⁸ Tax data are from the Tax Foundation, available at www.taxfoundation.org

⁹ Population data are from the Census Bureau, available at www.census.gov



In assessing the significance of our results, we test the hypothesis that coefficients are non-zero for both pre- and post-ACA coefficients.¹⁰ But we also apply an additional test to post-ACA coefficients to assess whether the relationship is significantly different from the pre-ACA comparison group. In reporting significance levels for post-ACA coefficients, we denote the lowest level of significance achieved by both tests. In all cases but one where we are able to identify statistically significant results, the post-ACA relationships are stronger and more negative.

Table 1: Impact on Jobs

	Small Firms (20 - 49 Employees)			Large Firms (50 - 99 Employees)	
	Pre-ACA		Post-ACA	Pre-ACA	Post-ACA
Total Premium	0.027		-0.093 **	-0.053	-0.003
Employer Contribution	0.074	*	-0.055 ***	-0.015	0.026
Employee Contribution	-0.047	*	-0.039 †	-0.031	-0.030

* 0.1 level of significance

** 0.01 level of significance

*** 0.001 level of significance

† Estimate is significantly different from 0 but not from comparison group.

Table 1 displays the results of our analysis on the effect of the ACA health insurance requirements on job levels. We find that, for the smaller businesses in our sample (20-49 employees), a one percent increase post-ACA in total health insurance premiums is associated with a 0.093 percent decrease in jobs, whereas there was no discernable relationship pre-ACA. A one percent, post-ACA increase in employer health insurance contributions is correlated with a 0.055 percent decrease in jobs, whereas prior to the ACA, a one percent increase in employer contributions was correlated with a 0.074 percent increase in jobs. Pre-ACA, a one percent increase in employee health insurance contributions is correlated with a 0.047 percent decrease in jobs and has not substantially changed with the passage of the ACA. We do not find any statistically significant relationships between health insurance premiums and jobs in businesses with between 50 and 99 employees.

Table 2: Impact on Weekly Pay

	Small Firms (20 - 49 Employees)			Large Firms (50 - 99 Employees)	
	Pre-ACA		Post-ACA	Pre-ACA	Post-ACA
Total Premium	0.077	*	-0.031 *	0.017	-0.109 *
Employer Contribution	0.068	*	-0.028 *	0.025	-0.085 *
Employee Contribution	-0.006		-0.009	-0.014	-0.018

* 0.1 level of significance

¹⁰ Since the post-ACA relationship between premiums and employment or wages is determined by the combination of two coefficients, we test whether they are jointly significantly different from zero.



Table 2 examines the impact of the ACA’s health insurance regulations on weekly pay. For businesses with between 20 and 49 employees, we find that a one percent, post-ACA increase in total health insurance premiums is associated with a 0.031 percent decrease in wages, in contrast with a positive correlation of 0.077 percent prior to the ACA. Similarly, a one percent increase in employer health insurance contributions is associated with a 0.028 percent decrease in wages post-ACA and a 0.068 percent increase pre-ACA.

Unlike our job level findings, we report stronger post-ACA relationships between health insurance premiums and wages for employers with between 50 and 99 employees. A one percent increase in total insurance premiums post-ACA is associated with a 0.109 percent decrease in wages, and a one percent increase in employer health insurance contributions post-ACA is associated with a 0.085 percent decrease in wages. We do not identify any statistically significant relationships between wages and health insurance premiums prior to the ACA for larger employers in our data, and we do not find a statistically significant relationship between employee health insurance contributions and wages in either time period or business size category.

Implications

Although the estimates might appear small, when one considers how premiums have changed since the ACA, the costs are profound. Pre-ACA, total premiums in an average state cost \$4,653 in 2009 and grew by 19.8 percent to \$5,576 by 2013.

What does this mean for worker pay? For businesses with 50 to 99 workers, we found that a one percent increase in total premiums has been associated with a 0.109 percent decrease in average weekly pay since the ACA. So a 19.8 percent increase in total premiums is associated with a 2.2 percent decrease in average weekly pay. This is consistent with past research from the Journal of Labor Economics, suggesting a double-digit increase in premiums reduced wages by [2.3 percent](#). Accordingly, our results suggest that the average weekly pay of \$831 in 2013 was 2.2 percent lower than it would have been absent the ACA, costing workers \$18.70 per week.¹¹ Moreover, if employees work all year, our results suggest that ACA regulations are costing them on average \$935 annually.

Nationally, about 14.8 million worked for businesses with 50 to 99 employees. If we conservatively assume that half of them work year round and half work for only half the year, the employer mandate costs workers about \$10.8 billion annually.

Table 3 illustrates how the rise in premiums in each state since the ACA has resulted in weekly pay cuts and annual income losses.

Table 3: Premium Increases and Resulting Income Losses since ACA became Law in Businesses with 50-99 Workers			
State	Premium Increase	Loss in Weekly Pay (\$)	Loss in Annual Earnings (\$)

¹¹ In calculating the impact of the ACA for weekly pay among businesses with 50 to 99 workers, we assume that the pre-ACA relationship is 0, as our results were weakly positive and statistically insignificant. This assumption leads to conservative estimates of the impact.



Alabama	12.0%	9.97	498.41
Alaska	21.9%	23.61	1,180.29
Arizona	22.6%	19.93	996.45
Arkansas	22.0%	16.83	841.59
California	20.5%	22.64	1,132.14
Colorado	24.0%	25.41	1,270.69
Connecticut	22.3%	32.83	1,641.60
Delaware	19.8%	17.28	863.89
Florida	19.9%	17.84	892.13
Georgia	14.5%	14.34	717.19
Hawaii	24.0%	20.13	1,006.47
Idaho	18.1%	13.40	670.06
Illinois	23.3%	25.21	1,260.28
Indiana	25.8%	20.73	1,036.46
Iowa	16.9%	13.31	665.64
Kansas	28.2%	24.26	1,212.94
Kentucky	21.2%	16.88	843.76
Louisiana	9.0%	7.88	394.19
Maine	14.6%	11.11	555.26
Maryland	17.7%	18.35	917.53
Massachusetts	19.4%	24.78	1,238.93
Michigan	8.2%	7.62	380.93
Minnesota	14.7%	14.69	734.41
Mississippi	11.0%	7.66	383.20
Missouri	23.9%	20.18	1,008.81
Montana	24.4%	18.69	934.74
Nebraska	22.1%	17.83	891.72
Nevada	11.7%	10.66	533.14
New Hampshire	19.6%	18.44	922.22
New Jersey	26.5%	33.59	1,679.37
New Mexico	15.8%	11.79	589.27



New York	20.2%	26.99	1,349.31
North Carolina	11.6%	9.72	486.25
North Dakota	29.1%	29.76	1,488.19
Ohio	33.3%	29.36	1,467.92
Oklahoma	20.9%	18.33	916.50
Oregon	16.4%	14.97	748.63
Pennsylvania	17.5%	17.23	861.54
Rhode Island	18.0%	15.96	798.05
South Carolina	20.5%	15.29	764.43
South Dakota	37.9%	28.63	1,431.58
Tennessee	13.1%	11.41	570.34
Texas	19.7%	21.02	1,050.87
Utah	24.7%	21.40	1,069.91
Vermont	15.3%	12.55	627.41
Virginia	17.8%	18.74	937.02
Washington	15.6%	15.98	798.99
West Virginia	26.4%	22.33	1,116.26
Wisconsin	11.7%	9.96	497.86
Wyoming	34.0%	32.19	1,609.58

As noted above, total premiums have increased 33.3 percent in Ohio, resulting in weekly pay falling by \$29.36. For those who work year round in Ohio, this results in an annual loss of \$1,467. Year round workers in these businesses have seen their pay fall by more than \$1,000 in 19 states.

For businesses with 20 to 49 workers, we found that a one percent increase in total premiums has been associated with a 0.031 percent decrease in average weekly pay since the ACA. This suggests that the 19.8 percent increase in total premiums since the ACA is associated with a 0.6 percent decrease in average weekly pay. Moreover, we also found that in businesses with 20 to 49 employees before the ACA a one percent increase in total premiums was associated with a 0.077 percent increase in weekly pay. Thus, if the ACA had never become law, the 19.8 percent increase in total premiums since 2009 would have been associated with a 1.5 percent increase in weekly pay. So our results indicate that on net, the average weekly pay of \$771 in 2013 was actually 2.1 percent lower than it would have been without the ACA, costing workers on average \$16.55 per week. To put that in perspective, if employees work year round, they are losing about \$827.50 on average due to ACA regulations.



Nationally, about 19 million people worked in establishments with 20 to 49 employees. If we conservatively assume that half work year round and the other half work only six months, ACA regulations cost these workers \$11.8 billion annually. Consequently, ACA regulations are costing workers in businesses with 20 to 99 workers at least \$22.6 billion annually.

In addition, we found that in firms with 20 to 49 workers, a one percent increase in premiums after the ACA became law has been associated with a 0.093 percent decrease in employment. Table 4 demonstrates the implications for each state.

Table 4: Premium Increases and Resulting Job Losses in Businesses with 20-49 Workers since ACA became Law		
State	Premium Increase	Loss in Jobs
Total	n/a	350,544
Alabama	12.0%	3,136
Alaska	21.9%	855
Arizona	22.6%	6,650
Arkansas	22.0%	3,578
California	20.5%	42,788
Colorado	24.0%	8,296
Connecticut	22.3%	5,033
Delaware	19.8%	1,062
Florida	19.9%	20,786
Georgia	14.5%	7,613
Hawaii	24.0%	2,013
Idaho	18.1%	1,646
Illinois	23.3%	16,167
Indiana	25.8%	9,835
Iowa	16.9%	3,428
Kansas	28.2%	5,061
Kentucky	21.2%	5,057
Louisiana	9.0%	2,558



Maine	14.6%	1,206
Maryland	17.7%	6,305
Massachusetts	19.4%	8,302
Michigan	8.2%	3,852
Minnesota	14.7%	4,979
Mississippi	11.0%	1,595
Missouri	23.9%	8,507
Montana	24.4%	1,655
Nebraska	22.1%	2,924
Nevada	11.7%	1,733
New Hampshire	19.6%	1,773
New Jersey	26.5%	13,158
New Mexico	15.8%	1,809
New York	20.2%	21,072
North Carolina	11.6%	6,562
North Dakota	29.1%	1,942
Ohio	33.3%	23,379
Oklahoma	20.9%	4,708
Oregon	16.4%	4,123
Pennsylvania	17.5%	13,903
Rhode Island	18.0%	1,241
South Carolina	20.5%	5,145
South Dakota	37.9%	2,274
Tennessee	13.1%	4,485
Texas	19.7%	29,885
Utah	24.7%	4,355
Vermont	15.3%	664
Virginia	17.8%	9,127
Washington	15.6%	5,964
West Virginia	26.4%	2,575
Wisconsin	11.7%	4,329



Wyoming	34.0%	1,453
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Our results suggest that on average, a state lost 7,011 jobs in businesses with 20 to 49 workers due to increases in premiums, costing 350,544 jobs nationwide.¹² California has lost 42,788 jobs due to ACA regulations. In addition, the ACA has cost Florida, New York, Ohio, and Texas more than 20,000 jobs each.

We find evidence that the labor force is absorbing these detrimental costs even before the government has started enforcing the most stringent ACA regulations. These costs are likely a result of businesses preparing for the employer mandate, providing health insurance to workers, and losing access to low-cost coverage.

Conclusion

As the [Federal Reserve](#) found more than a decade ago, there is “strong evidence that workers pay for their health care costs in the form of reduced compensation, and that they do so contemporaneously with those costs.” Today, AAF finds that the ACA has fundamentally changed the health care landscape, affecting premiums, small business wages, and employment. \$22.6 billion in foregone income and 350,000 lost small business jobs might sound like stark numbers, but they are just the initial data from the ACA’s implementation. We expect this trend to strengthen as the administration fully implements the employer mandate.

¹² In calculating the impact of the ACA for jobs among businesses with 20 to 49 workers, we assume that the pre-ACA relationship is 0, as our results were weakly positive and statistically insignificant. This assumption leads to conservative estimates of the impact.