The Effect of Adopting Right to Work Laws: A Paired State Approach

Capstone Thesis

The Martin School of Public Policy

Spring 2014

Johnny Xu

Adviser: Dr. J.S. Butler

Table of Contents

The Effect of Adopting Right-to –Work Laws: A Paired-State Study

Executive Summary:

The issue of unionization is an enduring one both politically and economically. A major subset within union studies deal with so-called "right-to-work laws." States with right to work laws are concentrated heavily in the South and in the Plains states and have been that way since the 1940s or 1950s. The most recent additions of right-to-work states are Indiana and Michigan both in 2012. This paper will contribute to the debate by creating a new and novel dataset to analyze what the effects of adopting right to work laws are for a state over time as well as between a state and neighboring non-right to work state. It will use a four stage estimation strategy (consisting of regression and fixed effect models) to answer the following questions:

1) Do right-to-work laws allow workers to free-ride off of the dues paid by others
2) What is the effect of right-to-work laws on the unemployment rate?
3) What is the effect of right-to-work laws on the labor force participation rate?
4) What is the effect of right-to-work laws on median salary?
5) What is the effect of right-to-work laws on average number of manufacturing jobs?
6) What is the effect of right-to-work laws on state business tax collection?
7) What is the effect of right-to-work laws on manufacturing jobs?
8) What is the effect of right-to-work laws on union membership?

While the conclusions vary as there is not one clear effect for all estimations there are some general conclusions to be gleaned. For states that adopt right to work laws, over time both the unemployment rate will grow and labor force participation will grow. I hypothesize that this is due to more people looking for jobs. The business tax revenues and wages will fall and the free rider effect will also decline. When compared to neighboring non-right to work states, right to work states had higher wages, lower unemployment rate and lower percentage of the workforce unionized. Contrary to popular belief, being right to work did not have any significant impact on manufacturing jobs.

The fixed effect models, both for the before and after adoption analysis as well as neighboring states analysis, show that whatever their ultimate effects, adopting right to work laws are only a piece of the economic story for any state. The findings tentatively lead to the conclusion that controlling for right to work status, other state characteristics matter more for the state economy.

Introduction:

The issue of unionization is an enduring one both politically and economically. One only has to see the recent stories involving the United Auto Workers in Tennessee and Boeing manufacturing to see the salience of the issue. A major subset within union studies deal with so-called "right-to-work laws." The phrase -"right-to-work[1]" -is used to describe a set of laws whereby, "Employees can choose whether to opt in a union or not even if the company itself is unionized.""(Stevans 2009, 595). Right-to-work laws arose out of the 1947 Taft-Hartley amendments to the National Labor Relations Act of 1935. The amendment, "Allowed states to pass laws that proscribe unions from requiring employees to pay dues even when the employees are covered by a collective bargaining agreement."(Stevans 2009, 596).

The issue of unionization is highly charged and contentious with proponents citing that such laws allow employees to have the freedom to choose whether they wish to join the union rather than have some dues automatically taken regardless of whether one agrees or not.(Cooper 2004, 2.) Moreover these policies are often seen as "pro-business" because they allow for a more flexible labor market. This is especially salient for manufacturing jobs which are often thought as highly mobile and able to move to areas with the most flexible labor markets.

Opponents charge such policies are unfair because they create a free-rider effect in which those who pay union dues support all employees not just those who opted-in.(Stevans 2009, 598; Cooper 2004, 2.) Moreover they believe that without strong unions and collective bargaining, even if there were more gains it would go mostly to the owners rather than the workers.

---

[1] Right to Work is not a neutral phrase but it is consistently used in the literature. It does not signify my personal beliefs about such policies.

As can be seen from the table and map below, right to work laws are concentrated heavily in the South and in the Plains states. Moreover most right to work states have been that way since the 1940s or 50s. The most recent additions of right-to-work states are Indiana and Michigan both in 2012. Both states also have strong manufacturing bases. Table 1 shows the states and when they enacted, or amended, right to work laws:

State	Year Enacted-Amended
Alabama	1953
Arizona	1946,1948,1982
Arkansas	1944,1947
Florida	1968,1974,1977
Georgia	1947
Idaho	1986
Indiana	2012
Iowa	1947,1977,1978
Kansas	1958,1975
Louisiana	1976
Michigan	2012
Mississippi	1960
Nebraska	1946,1947,1961,1977
Nevada	1952
North Carolina	1947
North Dakota	1948, 1987

Oklahoma	2001
South Carolina	1954
South Dakota	1946, 1947,1955
Tennessee	1947
Texas	1993
Utah	1955
Virginia	1947,1954,1956,1970.1973
Wyoming	1963

Table 1:Stevans p. 605 with updates
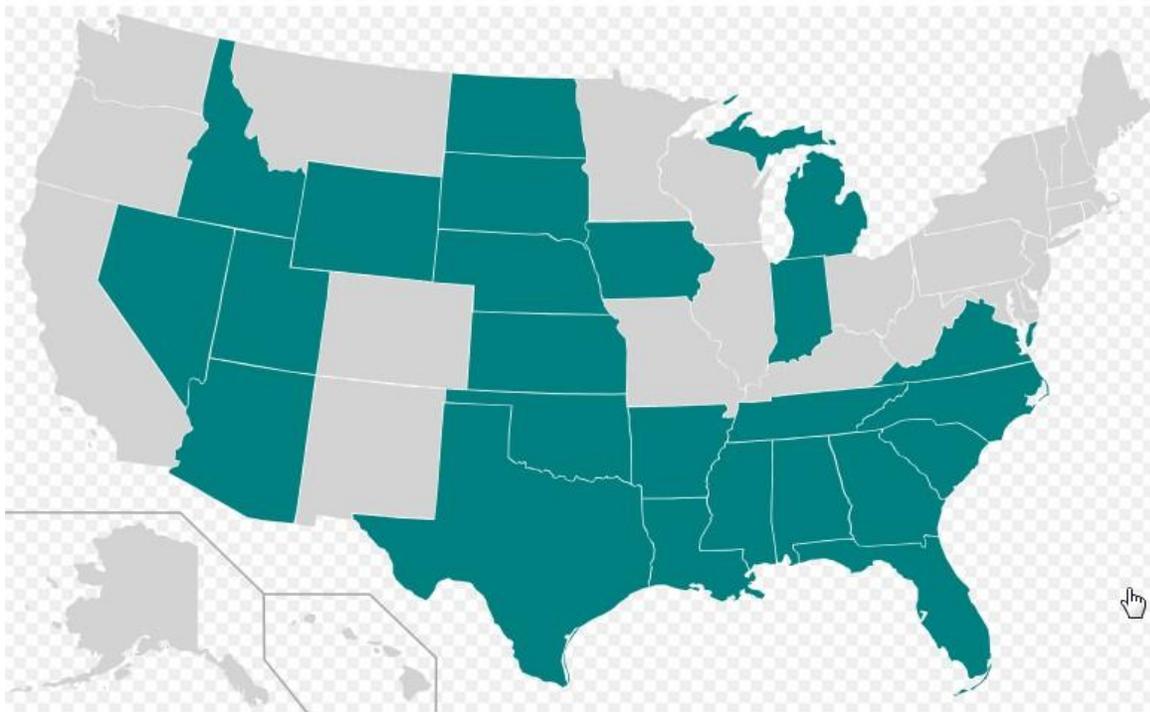
Figure 1: http://en.wikipedia.org/wiki/File:Right_to_Work_states.svg States that are colored are Right to Work States

While there have been over 90 studies on the effects of unionization and adopting right to work

laws, the effects of such policies are hard to gauge. One of the major reasons the effects are hard

to gauge may be that states that adopt right-to-work laws may be fundamentally different than

those that don't. For instance the so-called "taste hypothesis" suggests that right to work laws are adopted in states that already have strong anti-union sentiments." (Moore and Newman 1985, 574.) Other differences include, "right-to-work states are more agricultural, have a larger service sector…and have a less well-educated workforce."(Stevans 2009, 599-600, 606-607.) Finally, it is difficult to separate the effect of right to work laws from a myriad of other policies that may be the critical driver.

This paper will contribute to the debate by creating a new and novel dataset to analyze what the effects of adopting right to work laws are for a state over time as well as between a state and neighboring non-right to work state. It will use a four estimation strategy (detailed later) to answer the following questions:

1) Does right-to-work laws allow workers to free-ride off of the dues paid by others
2) What is the effect of right-to-work laws on the unemployment rate?
3) What is the effect of right-to-work laws on the labor force participation rate?
4) What is the effect of right-to-work laws on median salary?
5) What is the effect of right-to-work laws on average number of manufacturing jobs?
6) What is the effect of right-to-work laws on state business tax collection?
7) What is the effect of right-to-work laws on manufacturing jobs?
8) What is the effect of right-to-work laws on union membership?

Questions 5 and 6 are indirectly asking "Does a state that has a right-to-work laws gain more companies, especially manufacturing firms over the long run?"

Literature Review:

As noted earlier, economists' position on the impact of right to work laws are varied and the literature reflects that lack of a definite conclusion. For instance Moore's literature review of over 90 studies points out that, "The empirical evidence accumulated in the 1970s and 1980s indicates that right-to-work laws do not have strong lasting effects on wages."(Cooper 2004, 10-11.) Cooper's survey of more recent studies (i.e. after 1998 where Moore left off) shows a more

mixed picture but does tend to be pro-right-to-work. (Cooper 2004, 11-15.) Cooper's finding is that on balance, "Right-to-work laws are a net benefit…create jobs and spur economic activity." (Cooper 2004, p.43)

Professor Stevans on the other hand collected data from the U.S. Small Business Administration Small Business Indicators. It should be noted that the data itself pertains to all businesses and not just "small business as defined by having less 100 employees." (Stevans 2009, 600.) Other factors he put in his study to differentiate those hard to differentiate characteristics and therefore try to control for inherent differences include relative size of agriculture and service sectors, educational attainment of workforce and growth in population.(Stevans 2009, 599.)

He performed several cross-sectional (regional) regressions and found that, "Right-to-work laws do attract more businesses but that does not translate into higher wages as there is little trickle-down effect. Indeed per capita personal income and wages are lower while proprietor wages are higher. In addition bankruptcies are lower and there is higher self-employment. Finally, there is no relationship to employment rates and capital formation."(Stevans 2009, 595.)

Lawrence Mishel's article *The Wage Penalty of Right-to-Work Laws* used Bureau of Labor Statistics data to estimate log equations. His regression controls for factors such as, "Age, race/ethnicity, gender, hourly worker, full time worker etc."(Mishel 2001.) Though he found a wage penalty for those states have right-to-work laws, it should be noted with caution. For one thing, Mishel works for the Economic Policy Institute which is funded 30 percent by unions. More importantly, Michel "Conceded that his adjustments for cost of living were questionable…could drastically skew his results."(Cooper 2004, 12.)

Thomas Holmes paper, "The Effect of State Policies on the Location of Manufacturing: Evidence from State Borders" uses a neighboring counties approach to study the effects of being right to work. He compares the rate of manufacturing firms leaving between neighboring states that are right to work on one side and not right to work on the other side. He finds that, "…manufacturing activity increases abruptly when one crosses the border from an anti-business state to a pro-business state."(Holmes 1998, 671.)

The most important commonality among the literature reviewed is that the methodology employed in estimating the effects of being right to work makes a big difference in the author's ultimate findings. While the idea that the model specified is vitally important holds true for just about any economic research, it seems to take on a particular importance when it comes to right to work laws. Two quick examples are in order. Moore states that the models used to estimate the effects of Right to Work are based upon, "different concepts of market equilibrium…that could bias the estimated effects."(Moore 1998, p.446) When it comes specifically to studying the impact on wages, it makes a big difference as to whether the researcher treats the wage variable as endogenous or exogenous. While most studies treat wages as exogenous and have found that wages are lower in right to work states some have argued that the low wages may be a characteristic of the state rather than an effect of the law. Indeed Wessel's 1981 study shows that "Right to Work Variable loses its influence on wages when it is properly treated as endogenous." (Moore and Newman 1985, p.579)

Methodology:

As stated before, the method used to study the effects of right to work adoption is vital. Traditionally, there have been four different methods of approach. The most common method is

the "stock model" whereby a cross section of data is collected and then regressed. It may lead to omitted variable bias and simultaneous-equations bias where causality runs both ways. The second method is using simultaneous equations but the variable restrictions make this difficult to justify. Farber asserts that for right to work studies, "a convincing model of simultaneous determination…does not exist." (Moore 1998, p.446) Flow models and decomposition models are used infrequently.

My methodology is to use a 4 stage estimation strategy:

- In the first stage, I will look at the states of Texas, Oklahoma, and Idaho before and after adoption of the law. That is I will look at their employment level, labor force participation, median salary, average number of manufacturing jobs, and business tax revenue collection before the passage of the law and after. In this analysis, the state itself will be the control. This study will shed insight on what the effects of adopting right to work laws are over the course of time.

- In the second stage, I will look at the fixed effect models of the three states before and after adopting right to work laws. This model is now controlling for right to work laws and looking at differences between states. Idaho is the state that Texas and Oklahoma are being compared to. In effect, it finds that whatever the effects of being right to work are, the characteristics of individual states matter more.

- In the third stage, I will use a panel regression on 6 pairs of neighboring or comparable states[2]. This novel approach is justified because it brings into closer examination the effect of right to work laws on states that have to compete with each other economically

---

[2] Technically it is 5 neighboring pairs and Texas-California which have similar sized economies to warrant comparisons

and mobility of capital and people can be safely assumed. Also, neighboring states tend to be similar in cultural and economic outlook so issues of "taste" would be minimized. Therefore effects (if there are any) should be easier to spot than previous nationwide aggregate studies.

- In the fourth stage, I will look at the fixed effects of individual states. This estimation controls for being right to work and finds that states have great differences in average wages, unemployment rates etc. Some of these differences are much greater than the estimated effect of right to work laws. All estimates are relative to Arizona (a right to work state) and the first state in our data set. What the fixed effect models tell us is that "Whatever the ultimate effects of being right to work are, state economies are very different from one another and being right to work is only a small piece of the picture."

For this paper I created six pairs of states, five of which are neighboring. While most right to work states passed their laws in the 1940s and 50s, there were three states that passed such laws relatively recently. They are Oklahoma in 2001, Texas in 1993 and Idaho in 1986. This allowed me to find economic data for the data in the decade prior to adoption and the decade after the adoption. For Oklahoma-Colorado I used the years 1991-2012 excluding the year 2001 which was the year Oklahoma passed the legislation. Similarly, for Texas-California I used the years 1983-2003 excluding the year 1993. Finally, for Idaho-Montana I used data from 1976-1996 excluding the year 1986.

For the other three of the pairs of states: Kentucky-Tennessee, New Mexico-Arizona, and Iowa-Missouri I used economic data for the years 1990-2005. This is because the right to work state passed the laws earlier than I was able to find corresponding data for it. I chose these three to keep the dataset manageable but others can choose different or additional states. Once those six

states are decided upon, I then found a neighboring state for each. I tried to keep the size of the economy relatively similar to each other. This is why I did not compare Idaho to Oregon or Washington but rather Montana and Iowa to Missouri rather than Illinois.

Given how much I have emphasized the importance of the model selected it seems appropriate to defend my model here. It is a typical stock model full of variables and regressions. I argue that the control variable such as farms, educational attainment, and racial demographics can all be reasonably considered exogenous as they change very slowly over time due to social and economic change. Whether wages should be considered endogenous won't be fully resolved but I would argue that right to work laws are very stable institutions while wages fluctuate all the time. Any issues of simultaneity would likely have occurred around the year of adoption which is specifically dropped from my data set.

As for the idea of using neighboring states, I believe that it would be better suited to detect any effects of right to work laws because states that are neighboring must compete with one another and the labor force as well as companies is much more mobile across state borders. Finally hard to quantify characteristics of states would be minimized by using neighboring states, since they tend to be similar in many respects. In short, it is a better control than previous studies using national aggregate data or regional effects.

Data:

Variable Name	Description
Urate	This is the unemployment rate. It is found from the Bureau of Labor Statistics. This is an outcome of interest.

Year	This is a dummy variable that labels the year to which the data pertain
Right to Work	This is the explanatory variable. It is coded 0 or 1 depending on the state and the year. 0 means it is not a right to work state and 1 means it is
LFPR	This is the labor force participation rate. This is another outcome of interest. It differs from the unemployment rate in that the unemployment rate compares to the whole population in active market work work or searching for work. The participation rate only compares to the cohort of working age people
BTaxRev	This is the business tax revenue. Another outcome of interest.
Post	This variable is coded 0 or 1. For states that were never right to work it is always 0. For states that adopted right to work it is 0 for the years prior to adoption and 1 to years post adoption. In the context of the first stage estimation, it can also be considered the time variable as regressing on this variable tells us how the state has fared since adopting right to work
Interaction	This term is the product of post and right to work. A product of 0 means it was either never right to work or not right to work that year. A product of 1 means that it was right to work that year. In the second and third stage estimation, this interaction is the treatment.
State	This is a set of dummy variable that labels each individual state.
Wages	This is an outcome of interest. The wages here are an average across all industries.
Percent Bachelor Degree	This is a control variable for education
Average Manufacturing Jobs	This comes from the Census of Manufacturing and is an outcome of interest.
Percent Black	This is a control variable. Because the Census only has a few data points, I used interpolation to fill in the gaps. This is acceptable since racial demographics change so slowly
Percent White	Similar to percent black

Percent Union	Depending on the context, this is either a control variable or outcome of interest. I made the simplifying assumption that all members pay dues.
Percent Union Rep	This is an explanatory variable and suggests the percent of the workforce represented by a union
Percent Free Rider	This is a variable of interest and is calculated by percent union rep by percent union. So if a state was 2 percent union and 4 percent union represented then there is a 2 percent free rider
Number of Farms	This is a control variable to proxy how rural/agrarian a state is
Total Farm Acreage	This is another control variable to proxy how rural/agrarian a state is

Findings:

Stage I: The Effect of Adopting Right to Work Laws Over Time

	Coefficient	T-Value	P>t	R-Squared
Unemployment Rate	1.23	2.53	0.017	0.72
Labor Force Participation Rate	0.77	2.23	0.033	0.97
Business Tax Revenue	-100306	-2.14	0.041	0.81
Union Free Rider Effect	-1.05	-2.34	0.026	0.58
Average Wages	-1378.2	-3.34	0.002	0.99

The purpose of the first part of my analysis is to look at the effects of the states of Oklahoma

Texas and Idaho in a before and after adoption of right to work laws. All of the above findings

are significant. Over time right to work states will have steadily higher unemployment rates. On

the other hand it will also have higher labor force participation rate. I believe that both these

findings are consistent on the hypothesis that there is an increase of people looking for jobs.

States that adopt right to work laws will have lower business tax revenues, lower average wages, and a lower percentage of union free-riding over the long run. There were no significant findings for number of manufacturing jobs over time.

Stage II: Before and After Adoption Fixed Effect Model

The above table was an aggregate of the three states (Idaho Oklahoma, Texas) that went through this before and after adoption analysis. The tables below uses to a fixed effect model to see how exactly the states fared compared to Idaho. Both Oklahoma and Texas fixed effect models agree with the general trend found above.

	Unemployment Rate	Labor Force Participation Rate	Business Tax Revenue	Union Free Rider Effect	Average Wage
Oklahoma	16.67*	-52.64*	-1630798*	7	12209.17
Texas	22.57	-63.37*	-8030426*	-1.3	-3135.04*

* means that it was statistically significant at the 5 percent level

Oklahoma has almost 17 percent higher unemployment rate than Idaho and 52 percent lower labor force participation rate than Idaho. Oklahoma's business tax revenue was lower than Idaho's by more than 163000 dollars. Texas's business tax revenue was lower than Idaho's by more than 8 million dollars, although that can be explained by the fact that Texas does not collect business taxes. Texas's labor force participation rate was almost 64 percent lower than Idaho's. Also compared to Idaho, there was nothing statistically significant for manufacturing jobs. This goes to show that even among right to work states, the impact of such law are only a small piece of the whole economic picture.

Stage III: The Effect of Adopting of Right to Work Laws as Compared to a Neighboring Non-right-to-work State

	Coefficient	T-Value	P>t	R-Squared
Unemployment Rate	-1.34*	-2.03	0.044	0.58
Labor Force Participation Rate	0.2	0.52	0.604	0.95
Business Tax Revenue	30420.84	0.59	0.559	0.79
Union Free Rider Effect	0.04	0.09	0.931	0.32
Average Wages	2214.7*	2.6	0.01	.97
Percent Union	-6.5*	-3.87	0	0.86

* means that it was statistically significant at the 5 percent level

When compared to neighboring states, states that are right-to-work have a lower unemployment rate, have higher average wages and have a much lower union presence. Even though over time right to work states will have steadily growing unemployment rates, when compared to a neighboring non-right to work state the unemployment rate is still lower. The same story is true for average wages. There was nothing statistically significant relating to manufacturing jobs.

Stage IV: Statistically Significant Findings for Individual States (Fixed Effect Model)

Much like the stage II before and after fixed effect model, it quickly becomes clear that states are very different from each other economically. The point of this exercise is to indirectly show that whatever the ultimate effects of being right to work are, such policies only account for a small part of the story. As will be shown, both states that are right to work and non-right to work have economic effects greater than the stage III neighboring states comparisons. All states are compared to Arizona (a right to work state) and the first state in our data set.

	California	Kentucky	Oklahoma	Texas

Unemployment Rate Coefficient	10.98	-6.47	-7.44	-20.1

For the unemployment rate, 3 states have lower unemployment rate percentages compared to

Arizona. Two of them are right to work and one of them (Kentucky) is not. Kentucky and

Oklahoma are almost 6.5 and 7.5 percent lower than Arizona respectively, while Texas is a

whopping 20 percent lower. California's unemployment rate on the other hand is almost 11

percent higher than Arizona.

	Colorado	Idaho	Montana	Oklahoma	Tennessee	Texas
Labor Force Participation	6.52	5.57	17.45	9.12	20.91	25.17

For labor force participation rate 6 states have higher percentages than Arizona. 4 of them are

right to work (Idaho, Oklahoma, Tennessee, Texas) and 2 of them are not (Colorado and

Montana).

	California	Colorado	Kentucky	Montana	New Mexico	Oklahoma	Tennessee
Business Tax Revenue Coefficient	-1432267	-441932.8	-999292.9	-1983814	751299.4	-1308556	-2814588

For business tax revenue 6 out of the 7 statistically significant states have lower business tax

revenue compared to Arizona. Of these 2 are right to work (Oklahoma and Tennessee) and 4 are

not (California, Colorado, Kentucky, and Montana). Only New Mexico a right to work state has

higher business tax revenue compared to Arizona.

	California	Colorado	Montana
Percent Union Coefficient	-25.13	9.75	21.41

For the percent of the workforce that is unionized all three statistically significant states are non-right to work. 2 of them (Colorado and Montana) have higher percent unionization compared to Arizona. Surprisingly California (a non-right to work state) actually has 25 percent lower workforce unions than Arizona.

	Colorado	Iowa	Idaho
Percent Union Free Rider Coefficient	2.79	4.34	4.03

For the percent of union free ridership there are three statistically significant states. All three of them indicate a higher percentage of union free ridership compared to Arizona. What is surprising is that one of the states where this free rider effect is higher is Colorado a non-right to work state.

	Iowa	Idaho	Kentucky	Montana	Texas
Average Wages	25477.94	12287.54	17881.13	23441.64	35803.66

For the average wages coefficient there are five statistically significant states. All five have higher wages compared to Arizona. 3 of them are right to work (Iowa, Idaho, and Texas.) 2 of them are not (Kentucky and Montana.)

	California	Iowa	Kentucky	Missouri	New Mexico	Oklahoma
Number of Manufacturing Jobs	1133.55	-388.77	-556.94	-741.22	-106.86	-594.38

Finally with respect to number of manufacturing jobs, there were six statistically significant states. Five of them had lower number of manufacturing jobs compared to Arizona. Of those five, two were right to work (Iowa, Oklahoma) and three were not (Kentucky, Missouri, New Mexico.) The state that had a greater number of manufacturing jobs than Arizona was California, a non-right to work state.

As the fixed effects model show, state characteristics matter more for economic outcomes of interest than simply whether a state adopted right to work laws or not.

Limitations:

This data can be increased by increasing the years, the number of states, and more explanatory/control variables can be added. Also, as stated before issues of reverse causality are not addressed in this paper. Effects estimated here may be biased toward finding larger effects especially with respect to wages. If unions are for higher wages and right to work laws curtail the power of unions then a larger negative wage factor would be detected.

Conclusions:

Right to work laws can and have been studied in a variety of ways, this paper contributes to the literature by comparing the effects of such laws within states over time, between states over the same period of time, or even indirectly with fixed effect models. While the conclusions vary as there is not one clear effect for all estimations there are some general conclusions to be gleaned. For states that adopt right to work laws, over time the unemployment rate will grow, labor force participation will grow, business tax revenues and wages will fall and the free rider effect will also decline.

When compared to neighboring non-right to work states, right to work states had higher wages, lower unemployment rate and lower percentage of the workforce unionized. The fixed effect models both for the before and after adoption analysis as well as neighboring states analysis show that whatever their ultimate effects, adopting right to work laws are only a piece of the economic story for any state. Contrary to popular belief, being right to work did not have any significant impact on manufacturing jobs. The findings tentatively lead to the conclusion that controlling for right to work status, other state characteristics matter more for the state economy. What those characteristics are is beyond the scope of this paper.

References:

Drawbaugh, Kevin. "UAW Challenges Result of Tennessee VW Plant Union Vote." Reuters. Thomson Reuters, 21 Feb. 2014. Web. 10 Apr. 2014.

Scott, Alwyn. "Boeing to Move Research Jobs out of Washington State." Reuters. Thomson Reuters, 12 Dec. 2013. Web. 10 Apr. 2014.

Cooper, John W. "The Effect of Right-To-Work Laws on Employees, Unions, and Business." Working Paper, 2004.

Mishel, Lawrence. 2001. *The Wage Penalty of Right-to-Work Laws*. Economic Policy Institute, http://www.epinet.org/content.cfm/datazone_rtw_index, October 2013.

Stevans, Lonnie K. "The Effect of Endogenous Right-to-Work Laws on Business and Economic Conditions in the United States: A Multivariate Approach." *Review of Law and Economics*, 5(1):595-614

Holmes, Thomas J. "The Effect of Right-To-Work Laws on Manufacturing: Evidence from State Borders." *Journal of Political Economy*, 106(4):667-704

Reed, Robert. "How Right-To-Work Laws Affect Wages." *Journal of Labor Research*, 24(4):713-727

Moore, William J. "The Determinants and Effects of Right-To-Work Laws: A Review of the Recent Literature." Journal of Labor Research 19(3): 445-69.

Moore, William J., and Robert J. Newman. "The Determinants and Effects of Right-To-Work Laws: A Review of the Recent Literature." Industrial and Labor Relations Review 38(4): 571-83.

Garofalo, Gasper A., and Devinder M. Malhotra. "An Integrated Model of the Economic Effects of Right-To-Work Laws." Journal of Labor Research 13(3): 293-305.

Reed, W. Robert. "How Right-To-Work Laws Affect Wages." Journal of Labor Research 24(4): 713-30.

Data Sources:

Unemployment Rate came from Bureau of Labor Statistics: http://www.bls.gov/

Labor Force Participation Rate came from Bureau of Labor Statistics: http://www.bls.gov/lau

Business Tax Revenues came from Census Bureau State Historical Tax Collection Database:

http://www.census.gov/govs/statetax/historical_data.html

Average Income came from the Census Bureau Historical Household Incomes: Table H-8

https://www.census.gov/hhes/www/income/data/historical/household/

Average number of Manufacturing jobs came from Bureau of Labor Statistics:

http://www.bls.gov/iag/tgs/iag31-33.htm#about

The Percent Black and Percent White came from the Census Bureau and interpolation:

http://www.census.gov/population/www/documentation/twps0056/twps0056.html

The Percent of Workforce that is unionized and the percent of the workforce that is represented

by unions came from a website called Unionstats by Barry A. Hirsch and David A. Macpherson

www.unionstats.com

Number of Farms and Number of Farm Acreage came from the Census Bureau: Table 825

http://www.census.gov/compendia/statab/cats/agriculture/farms_and_farmland.html