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Panel: The Economic Impact of Right to Work: What Does the Data Show?

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THE NATIONAL CENTER FOR THE STUDY OF COLLECTIVE BARGAINING IN HIGHER EDUCATION AND THE PROFESSIONS

The Economics of Right to Work Laws in Higher Education

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RIGHT TO WORK LAWS

- 27 States now have some form of Right to Work (RTW) laws on the books.
- Most were passed in the 1940's (12) and 50's (6) but 6 were passed after the year 2000.

- ❑ Indiana (2012)
- ❑ Kentucky (2017)
- ❑ Michigan (2013)
- ❑ Oklahoma (2001)
- ❑ West Virginia (2016)
- ❑ Wisconsin (2015)

20% of the RTW have been passed in the last 18 years.

So what has changed?

RIGHT TO WORK LAWS

Right To Work State	Right To Work Date	By Statute or Constitutional Provision	Right To Work State	Right To Work Date	By Statute or Constitutional Provision
Alabama	Friday, August 28, 1953	By Statute	Nebraska	Wednesday, December 11, 1946	By Constitution
Arizona	Tuesday, November 5, 1946	By Constitution	Nevada	Thursday, December 4, 1952	By Statute
Arkansas	Tuesday, November 7, 1944	By Constitution	North Carolina	Tuesday, March 18, 1947	By Statute
Florida	Tuesday, November 7, 1944	By Constitution	North Dakota	Monday, June 28, 1948	By Statute
Georgia	Thursday, March 27, 1947	By Statute	Oklahoma	Sunday, September 2, 2001	By Constitution
Idaho	Thursday, January 31, 1985	By Statute	South Carolina	Friday, March 19, 1954	By Statute
Indiana	Wednesday, February 1, 2012	By Statute	South Dakota	Tuesday, July 01, 1947	By Constitution
Iowa	Monday, April 28, 1947	By Statute	Tennessee	Friday, February 21, 1947	By Statute
Kansas	Tuesday, November 4, 1958	By Constitution	Texas	Friday, September 5, 1947	By Statute
Kentucky	Saturday, January 7, 2017	By Statute	Utah	Tuesday, May 10, 1955	By Statute
Louisiana	Friday, July 9, 1976	By Statute	Virginia	Sunday, January 12, 1947	By Statute
Michigan	Friday, March 08, 2013	By Statute	West Virginia	Friday, February 12, 2016	By Statute
Mississippi	Wednesday, February 24, 1954	By Statute	Wisconsin	Monday, March 9, 2015	By Statute
Mississippi	Tuesday, June 7, 1960	By Constitution	Wyoming	Friday, February 8, 1963	By Statute

Wagner Act (1933)

The Wagner Act specifically stated that companies could legally agree to be classified as any of the following:

- Closed Shop** – In a closed shop, employees must agree to be members of a union as part of their employment. Employees who ceased being members of the union for any reason, whether it be through the failure to pay their union dues or being outright kicked out of the union, were to be fired on the spot, whether they violated any of the employer's other rules or not.
- Union Shop** – A union shop permits the hiring of non-union employees, provided they join the union within a certain specified time period.
- Agency Shop** – In an agency shop, employees were required to pay the equivalent of what it would cost to be represented by the union. However, they were not required to actually join the union.
- Open Shop** – In an open shop, an employee cannot be forced to join a union, or be made to pay the equivalent of union dues to the union. The employee is also protected from being fired in an open shop if he ultimately decides to join the union.

Taft-Hartley (1947)

- Taft-Hartley Act gives individual states permission to outlaw the union and agency shops for employees working within their jurisdictions. Thereby repealing parts of the Wagner Act.
- Such laws that criminalize these kinds of situations are called “**right to work laws**”.
- So states have the right to decide the and they do it by either passing a constitutional amendment, or a statute.

RIGHT TO WORK LAWS

- Arguments For RTW:

- ❑ Unions increase unemployment
- ❑ Violate Free Speech
- ❑ Decrease Economic Growth

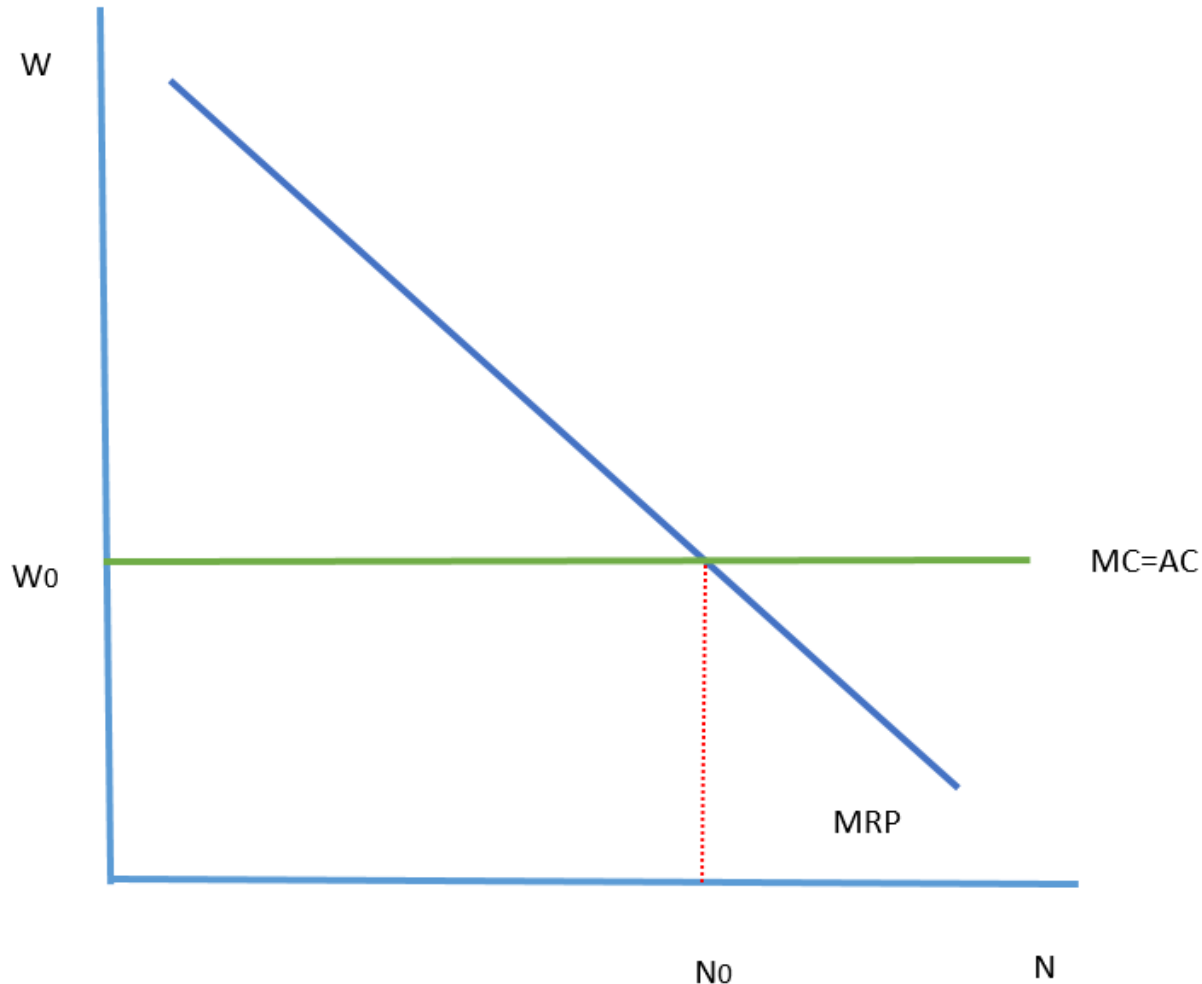
- Arguments Against RTW:

- ❑ Free Rider Problem
- ❑ Reduces workers power to control working conditions
- ❑ Increases inequality and causes class conflict

ECONOMICS OF RIGHT TO WORK LAWS

- There are three models of labor markets relevant to RTW laws:
 - Perfect Competition in All Markets
 - A Monopsony in the Labor Market
 - Union Utility (Club Theory) Model
- The first two models are the standard models used to argue about RTW.
- The utility model is somewhere in between (unions care about both wages and employment levels)

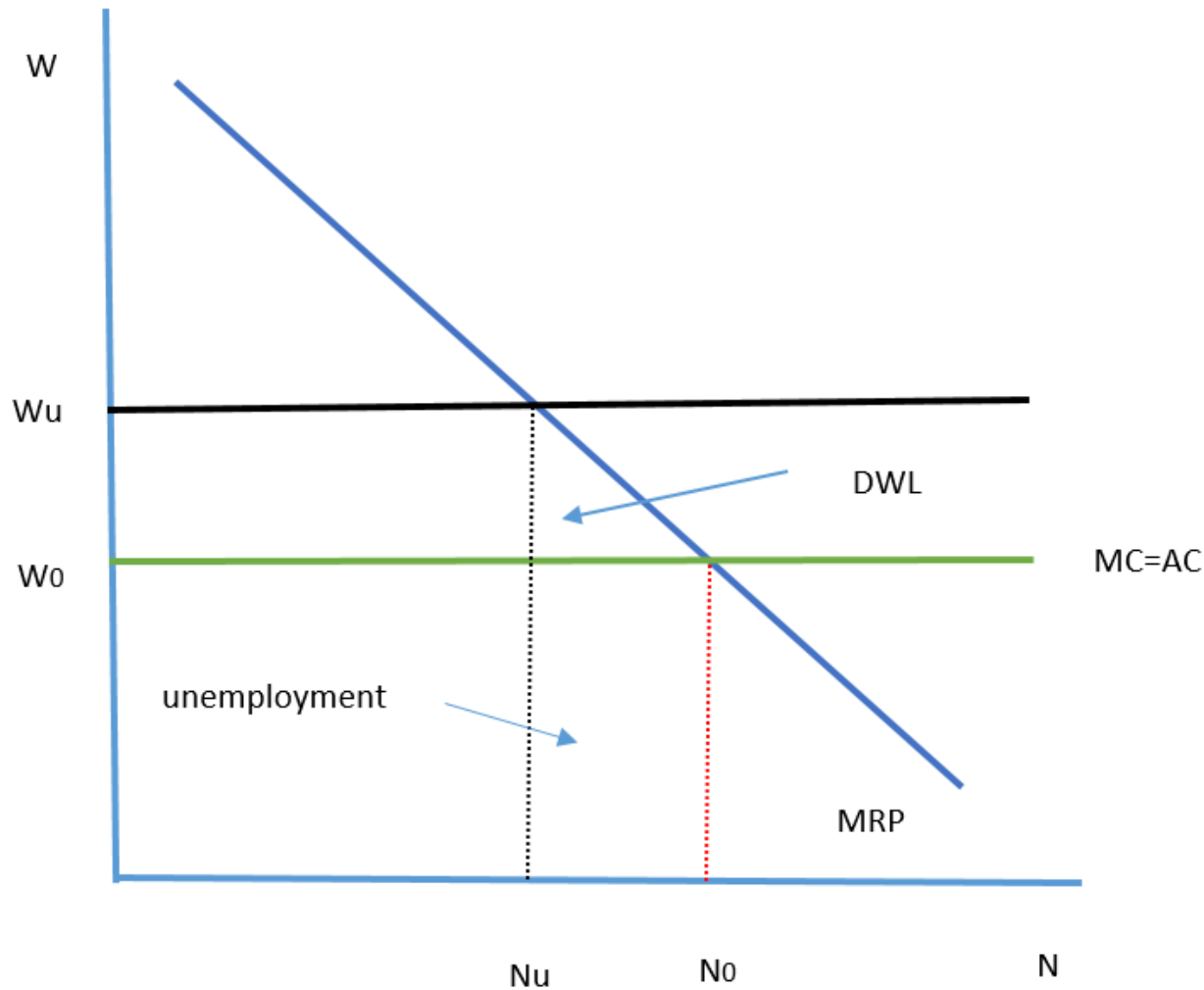
ECONOMICS OF RIGHT TO WORK LAWS



The Perfectly Competitive Model

- Strong assumptions are used to show that the solution in the labor market maximizes society's welfare.
- In this model everyone is a price taker, and there is no unemployment. Firms maximize profits, but do not make economic profits (only a fair return)
- Workers receive the full value of their work.
- The solution works this way because the Wage is equal to average and marginal costs.

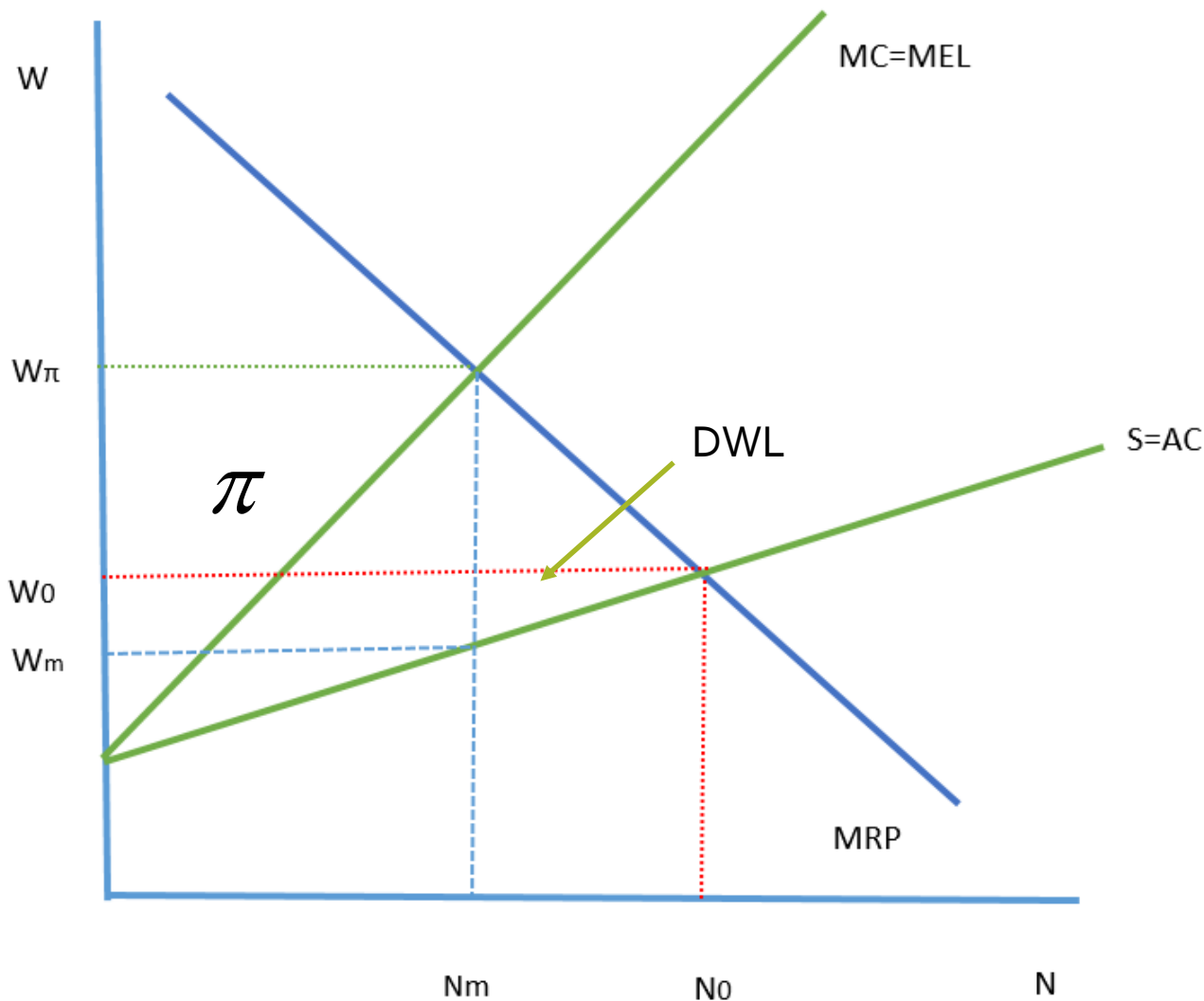
ECONOMICS OF RIGHT TO WORK LAWS



The Perfectly Competitive Model

- When a union enters the picture and raises wages to W_u , workers are now getting a wage premium, but unemployment is created.
- The triangle between the green, black and blue lines (DWL) is the loss to society because markets are not working.
- This is the Model RTW supporters see and why they believe reducing the power of unions will increase employment and economic growth. (Going back to W_0 get rid of DWL)

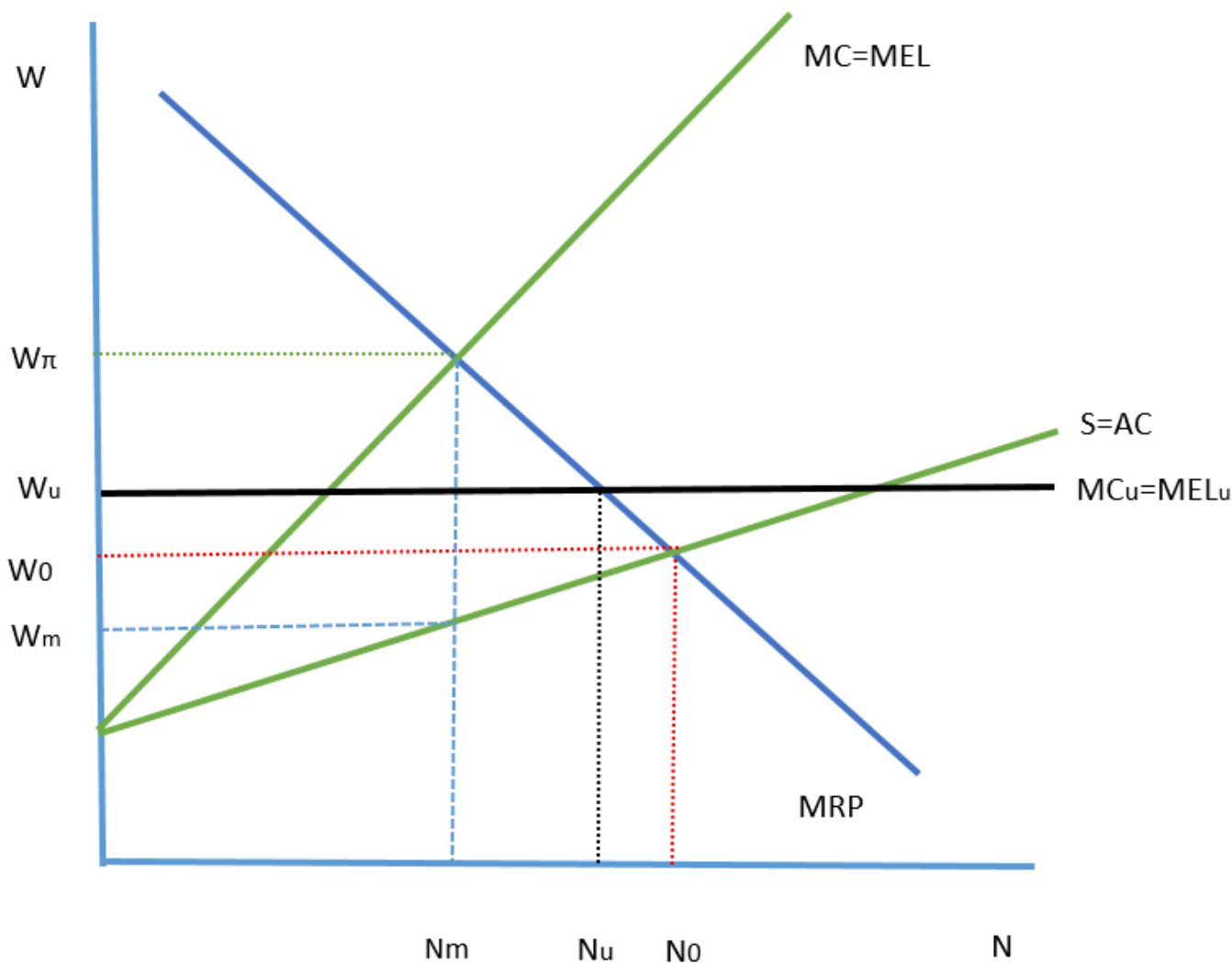
ECONOMICS OF RIGHT TO WORK LAWS



The Monopsony Model

- In this model employers are not price takers, but negotiate wages and have some control of wage setting. They now make economic profits (above fair returns).
- Firms maximize profits where $MRP=MC$, hire N_m workers and pay W_m . Both employment and wages are below the social optimum. The DWL here is again the triangle between the two green lines and the blue lines.
- If you hire only N_m the fair wage would be $MRP = W_\pi$. Unemployment is $(N_0 - N_m)$.

ECONOMICS OF RIGHT TO WORK LAWS



The Monopsony Model

- The union can now level the playing field by bargaining for wages. Here W_u is the bargained wage, which is above the wage W_m and W_0 .
- In this case **both employment and wages go up**, but there is still unemployment and economic profits.
- DWL is now smaller than the no union case, so society is better off with unions.
- Note that if the union negotiated a wage of W_0 it would correct the monopsony imperfections and bring society to the optimum.

ECONOMICS OF RIGHT TO WORK LAWS

- The question is which model better represents the United States today.
 - Which Model is better to look at the impact of unions in Higher Education.
 - A number of studies have looked at the impact of unions on wages and employment in the economy as a whole including:
 - Gould, Elise, and Heidi Shierholz. 2011. *The Compensation Penalty of “Right-to-Work” Laws*. Economic Policy Institute, Briefing Paper No. 299. <http://www.epi.org/publication/bp299/>
 - Moore, W.J., and R.J. Newman. 1985. “The Effects of Right-to-Work Laws: A Review of the Literature.” *Industrial and Labor Relations Review*, vol. 38, no. 4, 571–585.
 - Oswald, A. J. (1982). 'The microeconomic theory of the trade union.' ECONOMIC JOURNAL, vol. 92, pp. 576-95
 - Dunlop, John T. 1950 Wage Determination Under Trade Unions. New York: Augustus M. Keely.
 - CARRUTH, A. A. and OSWALD, A. J. (1986). “On union preferences and labor market models: insiders and outsiders.” Economic Journal.

ECONOMICS OF RIGHT TO WORK LAWS

- Higher Education may be different from other labor markets:
 - ❑ National Labor Markets
 - ❑ Highly educated employees who are hard to evaluate
 - ❑ Wages vary by discipline
 - ❑ Professors control the output of future professors
 - **This suggests higher education labor markets may not be perfectly competitive with or without unions.**

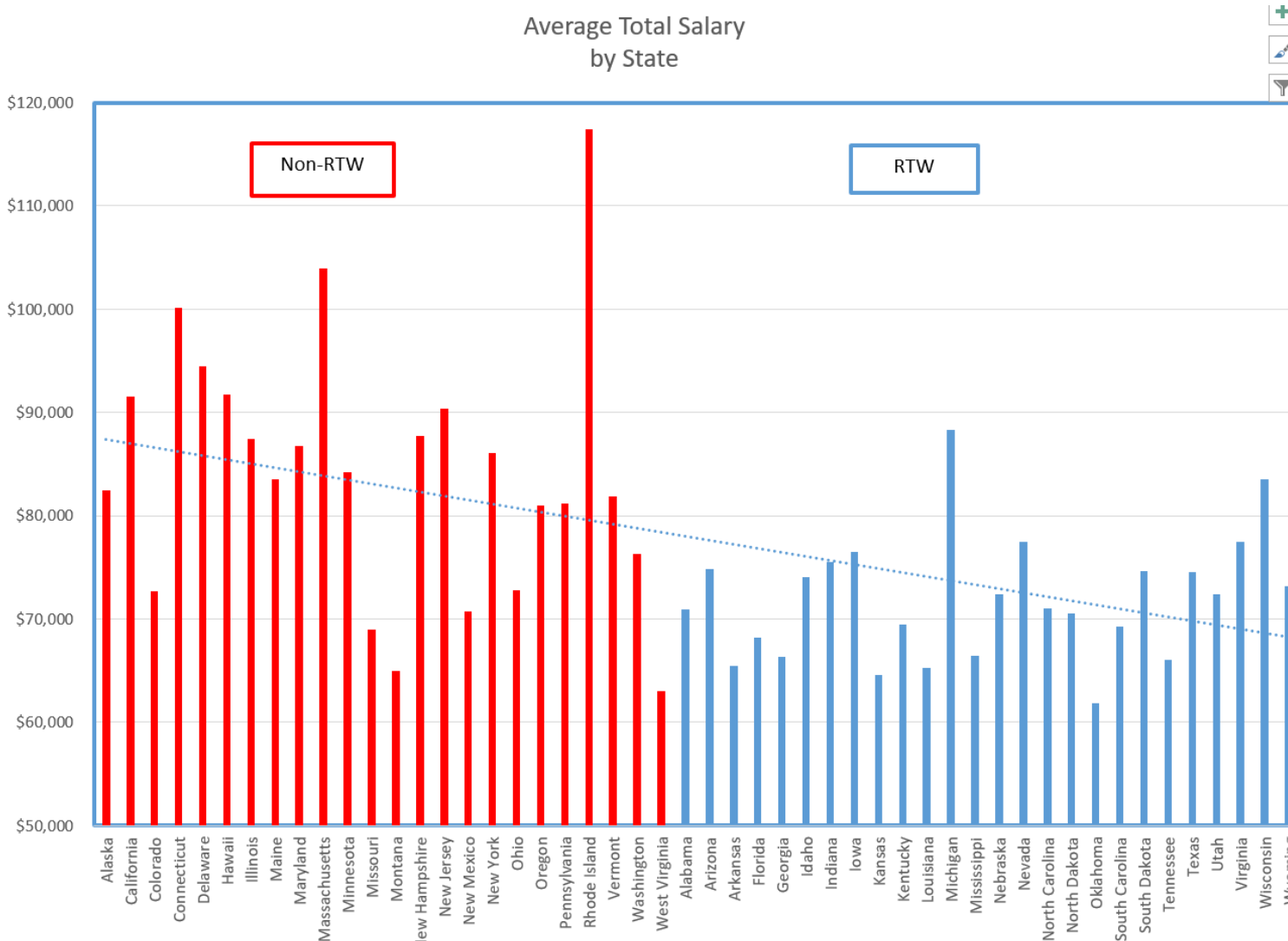
ECONOMICS OF RIGHT TO WORK LAWS

- **So how would we test to see whether unions improve society's welfare?**
- Heidi and her colleagues at EPI have suggested a model to see if RTW states reduce wages.
 - If wages decrease and unemployment declines then this would support the competitive model.
 - On the other hand, if wages decrease and employment is unchanged from where it would have been, the monopsony model is more appropriate.
 - In both cases wages decline with RTW and employed workers are hurt.
 - If wages do not decline and employment does not grow then RTW has no impact.

ECONOMICS OF RIGHT TO WORK LAWS

- Data: (Possible choices)
 - CPS: Current Population Survey
 - Individual Data and characteristics
 - Union Data (But Not AAUP)
 - Small Sample Size
 - IPEDS: Integrated Postsecondary Education Data System
 - Data by School (Type of Campus)
 - Average Salary Data by Campus
 - Large Sample Size

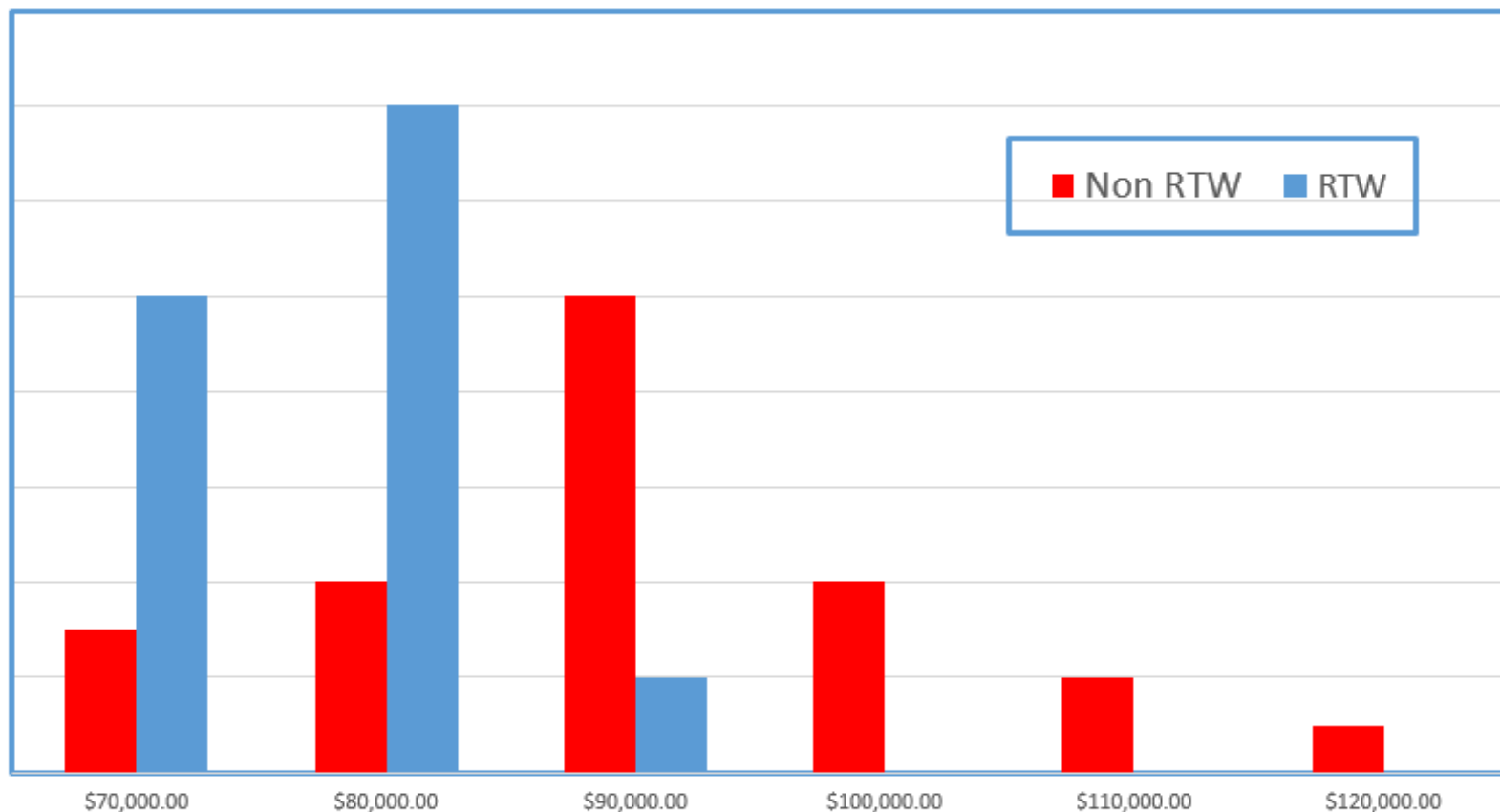
ECONOMICS OF RIGHT TO WORK LAWS



- IPEDS Data
- Average of Average Salary by State (All Sectors) for Full Time Faculty.
- The general trend is RTW States pay lower wages in Higher Education than Non-Right to work States.
- Regional Differences can be seen in the data, so a regression model is needed to take these traits into account.

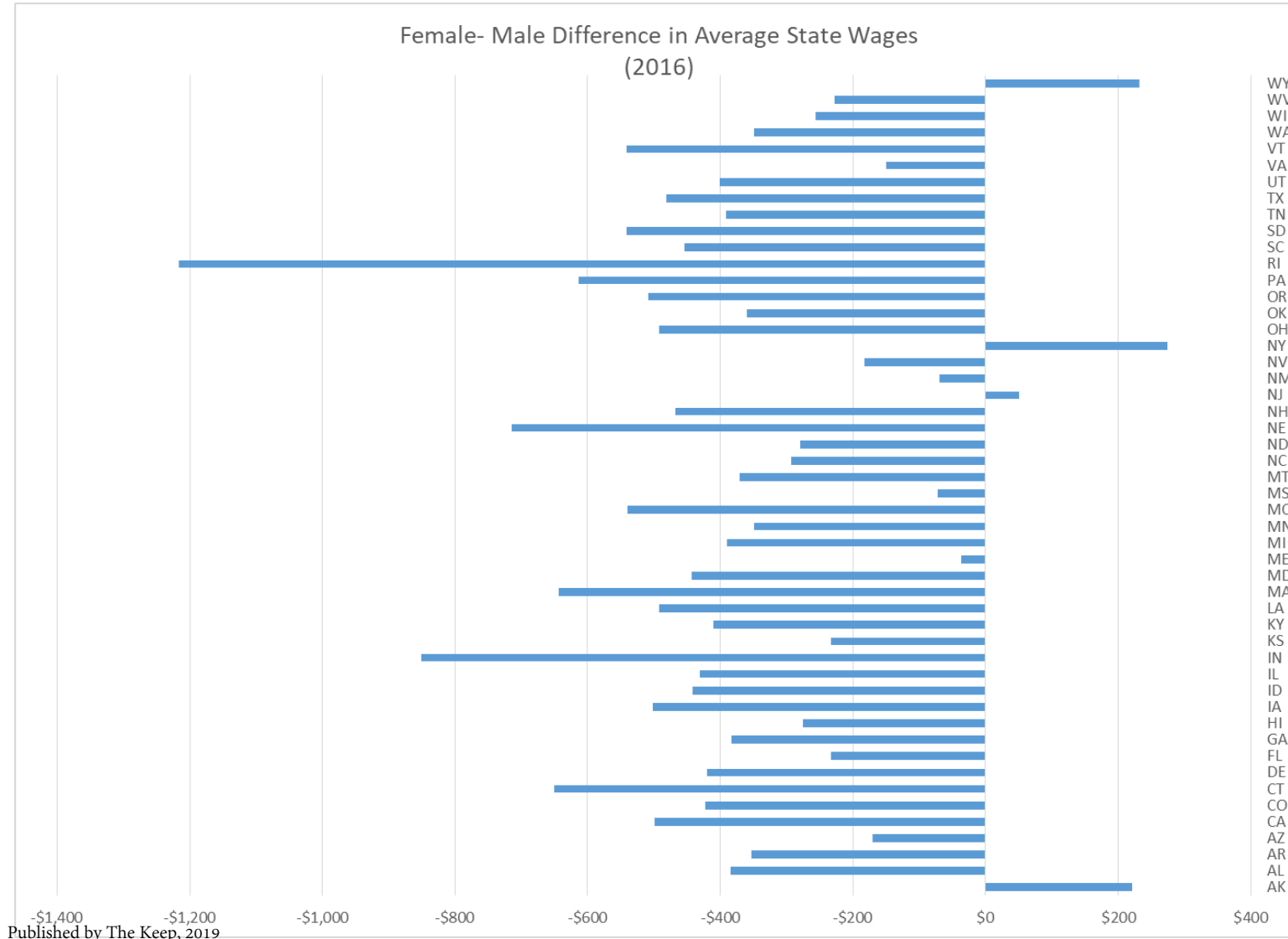
ECONOMICS OF RIGHT TO WORK LAWS

Average Salaries
RTW vs Non-RTW States
(2016)



- To see this more clearly, the Histogram shows that RTW peak at \$80,000 per year, while Non-RTW States peak at \$90,000.

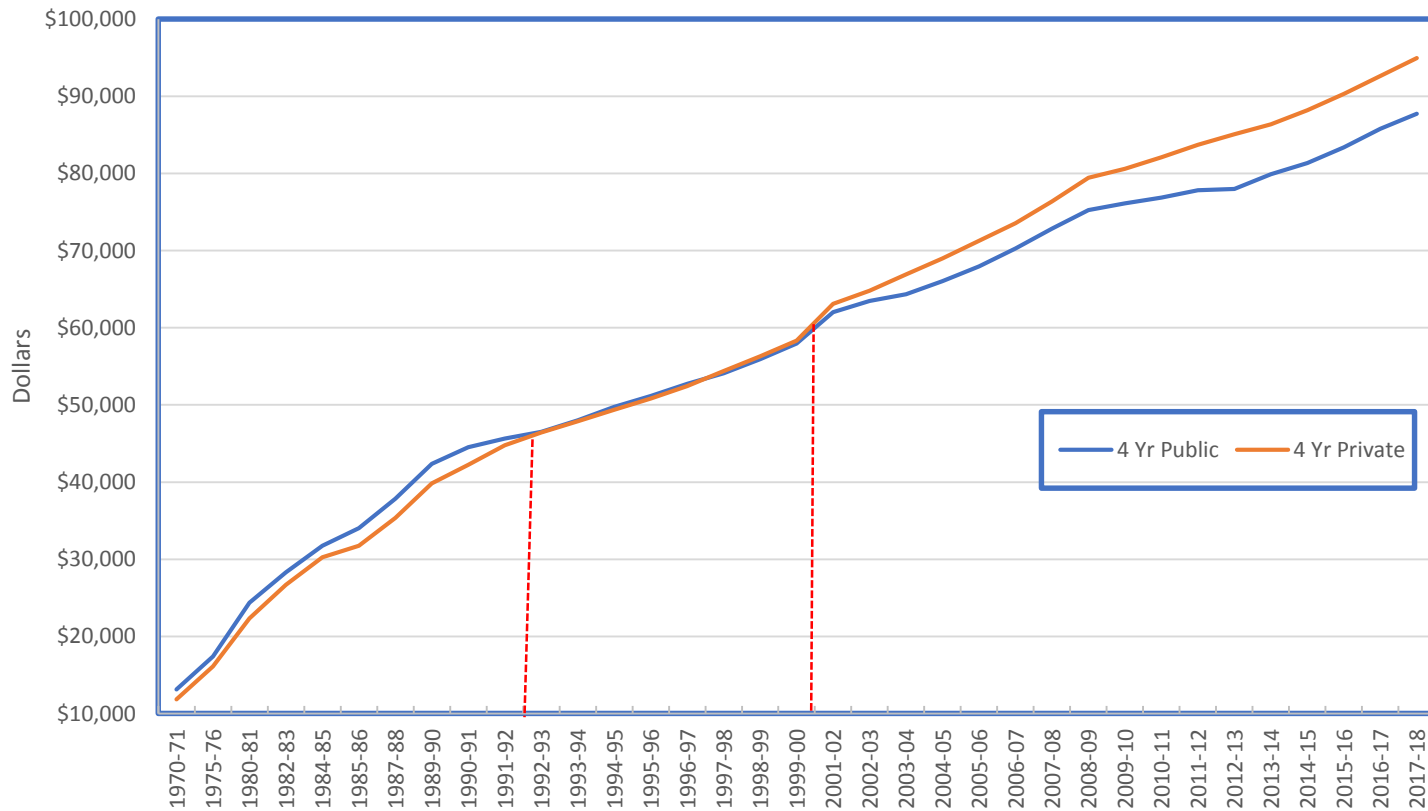
ECONOMICS OF RIGHT TO WORK LAWS



- In all but 4 states the difference between female and male salaries is in favor of male faculty.
- Without taking into account variables such as rank, department and years of service it is hard to say whether there is discrimination.
- But 3 of the four states are Non-RTW states (NY,NJ and AK), while the only RTW state is WY.

ECONOMICS OF RIGHT TO WORK LAWS

Average Nominal Salaries
(4 Year Public vs Private All)
1970-71 to 2017-18



- The IPEDS salary data shows a structural shift over time. Initially The public sector offered higher wages up until 1992-92. Then between 1992 and 2000, wages are equal. After 2000 the private sector is offering higher wages and the gap is growing. In 2017 the gap is over \$7,000.
- Both male and female faculty trends show the same pattern.

ECONOMICS OF RIGHT TO WORK LAWS

□ Regression Analysis

- The model is similar to those used by EPI to look at the workforce in general.

$$\ln w = \beta_0 + \beta_1 RTW + \beta_2 GDP_{PC} + \beta_3 RPP_S + u$$

- Variables:
 - In W: log of wages, data IPEDS average wage by campus (All (2017), Male and Female (2016))
 - RTW: dummy variable, 1= RTW State 0=Non-RTW State
 - GDP: gdp per capita by state, BEA REIS data (2017)
 - RPP: regional price parity by state, BEA REIS data (2017)
- Three models are estimated: One for all salaries regardless of gender (data 2017), then two additional models one for female faculty the other for male faculty (data 2016)

Note: additional models by sector are left for future research.

ECONOMICS OF RIGHT TO WORK LAWS

Regression Analysis Results:

The REG Procedure
Model: MODEL1
Dependent Variable: IFacSalT17

Number of Observations Read	6940
Number of Observations Used	3670
Number of Observations with Missing Values	3270

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	44.69209	14.89736	106.42	<.0001
Error	3666	513.20277	0.13999		
Corrected Total	3669	557.89486			

Root MSE	0.37415	R-Square	0.0801
Dependent Mean	10.98115	Adj R-Sq	0.0794
Coeff Var	3.40722		

Parameter Estimates										
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Heteroscedasticity Consistent			Variance Inflation
							Standard Error	t Value	Pr > t	
Intercept	Intercept	1	10.22071	0.08965	114.00	<.0001	0.09960	102.62	<.0001	0
RTW	RTW	1	-0.05287	0.01573	-3.36	0.0008	0.01347	-3.92	<.0001	1.61499
GDP	GDP	1	0.00000512	0.00000113	4.52	<.0001	9.435428E-7	5.42	<.0001	3.10018
COLA	COLA	1	0.00515	0.00119	4.32	<.0001	0.00128	4.01	<.0001	3.18658

All Faculty Model

- The RTW states do in fact pay lower salaries by 5.28%, and the variable is statistically significant.
- This result is in line with other studies which looked at the entire labor force.
- The other parameters are as expected and are significant.
- The Model as a whole has relatively low explanatory power, which should be expected when variables such as rank are not taken into consideration.

ECONOMICS OF RIGHT TO WORK LAWS

The REG Procedure
 Model: MODEL2
 Dependent Variable: IFacsaWT16

Number of Observations Read	6940
Number of Observations Used	3670
Number of Observations with Missing Values	3270

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	46.24861	15.41620	139.40	<.0001
Error	3666	405.41796	0.11059		
Corrected Total	3669	451.66657			

Root MSE	0.33255	R-Square	0.1024
Dependent Mean	8.76775	Adj R-Sq	0.1017
Coeff Var	3.79286		

Parameter Estimates										
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Heteroscedasticity Consistent			Variance Inflation
							Standard Error	t Value	Pr > t	
Intercept	Intercept	1	7.96958	0.07968	100.02	<.0001	0.08234	96.79	<.0001	0
RTW	RTW	1	-0.05265	0.01398	-3.77	0.0002	0.01365	-3.86	0.0001	1.61499
GDP	GDP	1	0.00000481	0.00000101	4.77	<.0001	9.313956E-7	5.16	<.0001	3.10018
COLA	COLA	1	0.00570	0.00106	5.37	<.0001	0.00107	5.32	<.0001	3.18658

Female Faculty Model

- The results are similar to those of the all faculty model, with all variables statistically significant.
- The R² is higher than the all faculty model and suggests gender is an important determinant in the salaries of faculty.

ECONOMICS OF RIGHT TO WORK LAWS

The REG Procedure
 Model: MODEL3
 Dependent Variable: lfacsalM16

Number of Observations Read	6940
Number of Observations Used	3670
Number of Observations with Missing Values	3270

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	48.48580	16.16193	127.36	<.0001
Error	3666	465.22938	0.12690		
Corrected Total	3669	513.71518			

Root MSE	0.35624	R-Square	0.0944
Dependent Mean	8.78917	Adj R-Sq	0.0936
Coeff Var	4.05312		

Parameter Estimates

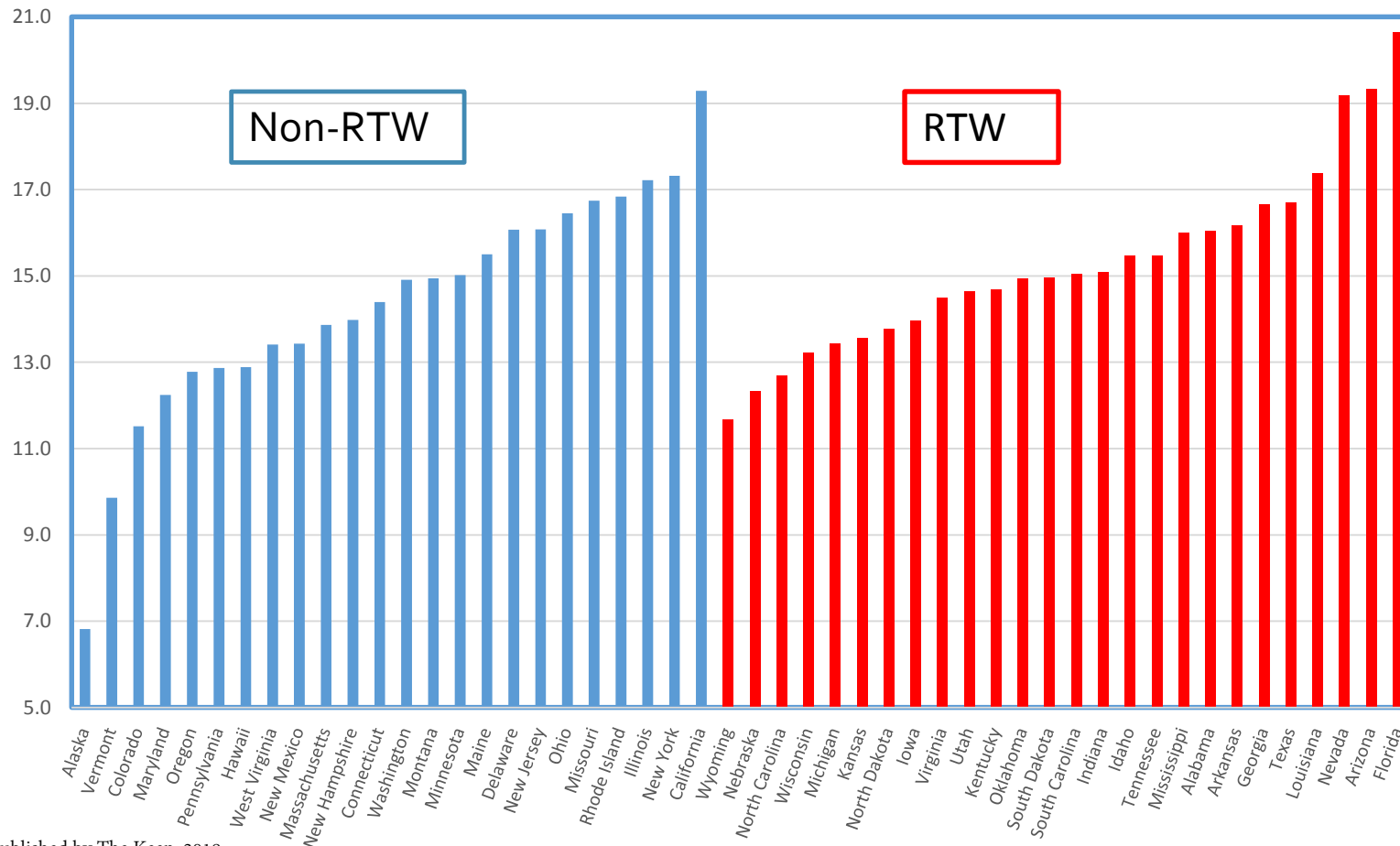
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Heteroscedasticity Consistent			Variance Inflation
							Standard Error	t Value	Pr > t	
Intercept	Intercept	1	8.04089	0.08536	94.20	<.0001	0.08770	91.68	<.0001	0
RTW	RTW	1	-0.05740	0.01497	-3.83	0.0001	0.01475	-3.89	0.0001	1.61499
GDP	GDP	1	0.00000598	0.00000108	5.55	<.0001	0.00000104	5.75	<.0001	3.10018
COLA	COLA	1	0.00457	0.00114	4.03	<.0001	0.00115	3.96	<.0001	3.18658

Male Faculty Model

- The results are similar to the other two models.
- The RTW parameter estimate is somewhat higher at 5.74% than the female model at 5.26%, but the difference is not significant given the standard errors of the parameters.

ECONOMICS OF RIGHT TO WORK LAWS

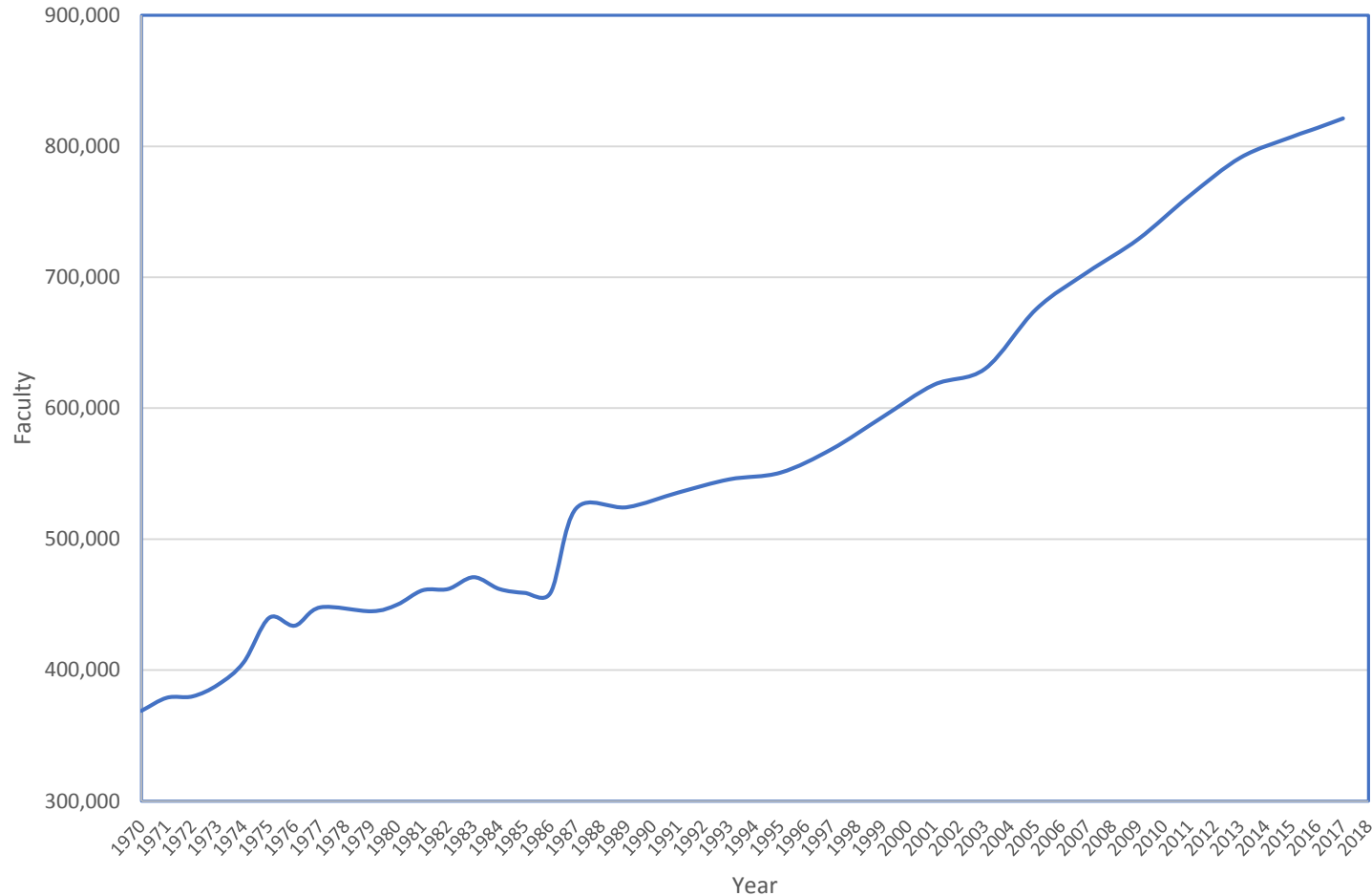
FTE Students per FTE Faculty
By RTW and Non-RTW States



- Other than size of state there does not seem to be a pattern between RTW and Non-RTW states when it comes to the number of students taught per faculty member.
- This is indirect evidence that RTW laws do not change the level of employment.

ECONOMICS OF RIGHT TO WORK LAWS

Full Time Faculty U.S.



- The trend in employment of Full Time Faculty does not seem to be changing over time as more states become RTW States.
- This would suggest the perfectly competitive model, which would predict an increasing growth rate in faculty, after 2000 with 6 additional RTW states, does not represent the higher education labor market.

ECONOMICS OF RIGHT TO WORK LAWS

□ Conclusions:

- Higher Education as a labor market is somewhat different from other sectors in that it is:
 - a national labor market.
 - Sets salaries by discipline so doesn't have a traditional salary scale.
 - Has workers in control of the number of workers coming on the market.

- Even with this our initial analysis on RTW laws support the concept that:
 - The higher education sector is not perfectly competitive, but follows a monopsony model.
 - Unions move wages and employment in the direction of the social optimum
 - RTW laws have a similar impact on Higher Education as the other sectors in the economy.

ECONOMICS OF RIGHT TO WORK LAWS

Thank you