A Statistical Analysis of the Right-to-Work Law Conflict

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A STATISTICAL ANALYSIS OF THE RIGHT-TO-WORK LAW CONFLICT

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THE basis for state regulation of union security for those companies involved in interstate commerce is derived from section 14b of the Taft-Hartley Act, which states:

Nothing in this act shall be construed as authorizing the execution or application of agreements requiring membership in labor organizations as a condition of employment in any state or territory in which such execution or application is prohibited by State or Territorial law.[1]

At present, nineteen states have right-to-work laws on the books. The first state to pass such legislation was Florida. Typically, these state laws follow the same pattern. For example, the Indiana act reads:

It is hereby declared the public policy of the state of Indiana that membership or nonmembership in a labor organization should not be made a condition to the right to work, or to become an employee of, or to continue in the employment of any employer; that employees should have the right to self organization; and the right to form, join, continue membership in, or assist labor organizations. The aforesaid rights of employees and each and all of them are fundamental and essential rights, and any agreement between employees and labor organizations which make membership or the maintenance thereof, or nonmembership in a labor organization a condition of work or continued employment, and any denial, severance or interruption of employment because of such membership or nonmembership are violations of aforesaid rights and against the public policy of the state of Indiana.[2]

The constitutionality of right-to-work laws, though continually challenged by union forces, has been upheld by the Supreme Court on the ground that it is within the police powers of the state to regulate union security provisions.[3]

Controversy over right-to-work laws has resulted in many conflicting assertions as to their effects. One major claim made by the proponents of such laws is that as a result of the presence of a right-to-work law in a given state, the level of industrial conflict in that state will be less than it would have been in the absence of the law.[4]

This article examines the influence of state right-to-work laws upon the amount of industrial conflict. Using a multiple-regression analysis, the study finds that such laws seem to have no significant influence upon the level of strike activity.

[1]Labor-Management Relations Act (Taft-Hartley Act) 61 Stat. 136, 29 U.S.C. 141 (1947).
[2]Ind. Stat., 40–2701 – 40–2706 (1952).
[3]American Federation of Labor vs. American Sash Door, 335 U.S. 538 (1949).
[4]See, for example, *Right to Work National Newsletter*, Vol. 10, No. 1 (Jan. 27, 1964), p. 4 and Chamber of Commerce of the United

It is the purpose of this study to ascertain whether the existence or nonexistence of a right-to-work law directly relates, in any statistically significant degree, to the observed levels of industrial conflict in a given state.

Factors in the Study

The first step in the analysis is a direct comparison of the observed levels of industrial conflict in the right-to-work states and union-shop states for the period 1957–1962. The measure of industrial conflict is the proportion of time lost due to work stoppages, measured in man hours, relative to total estimated working time.[5] For the right-to-work states, the average per year was .19 percent. The average for the non-right-to-work states was .24 percent. This difference proved to be statistically significant at the 5 percent significance level. In terms of total man hours lost due to industrial conflict, the average for the right-to-work states was 267,151 hours per year, while for the union-shop states, the average was 712,603 hours. The causative factors for this significant difference, however, might conceivably be factors other than the existence or nonexistence of a right-to-work law.

The next phase of the study is directly concerned with the variable factors which might explain the observed levels of industrial conflict present. Four variables are used. The first variable considered is the degree of unionization of the manufacturing labor force. Second, a dummy variable is used for the classifications right-to-work states and union-shop states. The third variable is a structural factor indicating the impor-

tance of relatively non-unionized industries in the economy of a given state. The fourth variable is the size of the agricultural labor force relative to the total labor force.

It is vital at this point to explain the characteristics of these variables and the rationale behind their use. In the case of the first variable, it is a reasonable hypothesis that the greater the degree of unionization present, the greater the probability of strikes. The average percentage for the degree of unionization of the manufacturing labor force for the right-to-work states was 23.9; the average for the union-shop states was 32.9.[6]

The second or dummy variable is included to test if any significant degree of the variation among the states in time lost can be explained by the existence or nonexistence of a right-to-work law. A dummy variable takes on the value of zero (right-to-work states) or unity (union-shop states).[7]

In the case of the third variable, an attempt is made to isolate the variation in the industrial structure among the states. This structural factor is intended to indicate the importance of relatively non-unionized industries in the economy of any given state, as measured in terms of the percentage of the manufacturing labor force employed in these industries.[8] Following the two-digit Standard Industrial Classification, the industries used are: (1) food and kindred prod-

States, *Exposed: Union Myths About Right-to-Work Laws,* 1964, p. 14.
[5]U.S. Bureau of Labor Statistics, *Work Stoppages,* 1963, Report No. 256.

[6]Leo Troy, *Distribution of Union Membership among the States 1939 and 1953* (New York: National Bureau of Economic Research, 1957), Occasional Paper No. 56.
[7]For a discussion of the uses of dummy variables, see Daniel B. Suits, "Use of Dummy Variables in Regression Equations," *Journal of the American Statistical Association,* Vol. 52, No. 280 (December 1957), pp. 548–551.
[8]U.S. Department of Commerce, *Annual Survey of Manufacturers.*

ucts; (2) textiles; and (3) apparel. This variable is indicated as sector A in the appendix. The purpose of this variable is to indicate that not only the absolute degree of unionization is to be considered as a generating force behind the observed levels of conflict, but also the dispersion of union strength throughout the industries of a state.

The size of the agricultural labor force is the fourth variable considered. The data for the right-to-work states and union-shop states appear in the following table.

Table. Size of Agricultural Labor Force Relative to Manufacturing Labor Force.

Percentage of Labor Force Employed in Agriculture	Right-to-Work States*		Union-Shop States†	
	Number of States	Average	Number of States‡	Average
1–10%...	10	7.54%	23	5.0%
10–20.....	6	13.40	15	14.8
20–30.....	3	21.10	0	–

*Modal class for percentage of labor force employed in manufacturing sector in right-to-work states: 10–20%.

†Modal class for percentage of labor force employed in manufacturing sector in union-shop states: 30–40%.

‡No data available for Hawaii and Alaska.
Source: U.S. Department of Commerce and U.S. Department of Labor surveys of the manufacturing and agricultural labor force.

Importance of the Data

One definite pattern appears in the above data. Specifically, agriculture is of dominant importance relative to the manufacturing sector for the right-to-work states, while in the union-shop states agriculture is of minor importance relative to the manufacturing sector. Where the relatively non-unionized agricultural sector is of major importance in the economy of a state, the theoretical level of industrial conflict

should be less than where this is not the case.

In order to test the effects of the four variables on the observed levels of conflict, a multiple linear regression is used. The resulting equation below indicates that the regression coefficients of the second (right-to-work—union-shop states), third (sector A), and fourth variable (agricultural labor force) are not statistically different from zero.

$$Y = .000739 + .00054X_1 + -.00312X_2$$
$$(.000131) \qquad (.00277)$$
$$+ -.00001X_3 + -.00009X_4$$
$$(.00013) \qquad (.00022)$$

It is therefore apparent that the existence or nonexistence of a right-to-work law does not, to a statistically significant degree, affect levels of industrial conflict. The degree of unionization present is the major explanatory factor for the varying levels of industrial conflict, within the structure of the above variables (see appendix).

In the light of current attempts to achieve repeal of section 14b of the Taft-Hartley Act, it is vital to weigh the evidence and evaluate the effects which right-to-work statutes have had, and what effects will result if section 14b is repealed.

As indicated, the degree of unionization is the single major factor in the determination of the resulting levels of industrial conflict, and right-to-work statutes play no significant explanatory role in the resulting levels of conflict.

It can be concluded then that right-to-work laws have not inhibited union strike power. If section 14b is repealed, no increase in industrial conflict should result.

Appendix

Step-Wise Regression Equation

Variable X_1 (degree of unionization) Y = degree of industrial conflict

$$Y = -.000708 + .000493X_1$$
$$(.000101)$$

$$R = .57287$$
$$S(Y) \quad .007308$$

Introduction of variable X_2 (right-to-work–union-shop states)

$$Y = -.001070 + .000558X_1 + (-.002571X_2)$$
$$(.000120) \quad\quad (.002535)$$

$$R = .57325$$
$$S(Y) \quad .007306$$

Introduction of X_3 and X_4 (sector A and agricultural labor force)

$$Y = .000739 + .00054X_1 + (-.003128X_2) + (-.000010X_3) + (-.000094X_4)$$
$$(.000131) \quad (.002772) \quad\quad (.000135) \quad\quad (.000224)$$

$$R = .55026$$
$$S(Y) \quad .00745$$

Simple Correlation Coefficients

i	j	$R(i,j)$
1	5	.585
2	5	.208
3	5	−.306
4	5	−.243
2	3	−.356
2	4	−.470

1 = degree of unionization
2 = right-to-work, union-shop states
3 = sector A
4 = agricultural labor force
5 = dependent variable

Table 1. Non-Right-to-Work States.

State	Degree of Conflict 1957-1962	Degree of Unioni- zation	Sector A	Agricul- tural Labor force
Alaska	nd	nd	nd	nd
California	1.06%	35.7%	8.0%	4.6%
Colorado	1.80	27.8	19.5	7.8
Connecticut	1.28	26.5	3.3	1.8
Delaware	1.37	18.4	5.3	5.2
Hawaii	nd	nd	nd	nd
Idaho	1.96	21.5	32.2	19.0
Illinois	1.28	39.7	6.8	4.4
Kentucky	1.84	25.0	12.8	14.2
Maine	.21	21.4	11.8	6.2
Maryland	1.98	25.2	11.1	3.5
Massachusetts	1.08	30.0	6.86	1.3
Michigan	2.29	43.3	4.19	3.4
Minnesota	1.64	38.1	11.36	14.5
Missouri	1.55	39.7	8.93	9.5
Montana	3.82	47.0	31.0	17.7
New Hampshire	.29	24.6	13.22	3.1
New Jersey	1.35	35.2	7.17	1.5
New Mexico	1.47	14.2	27.0	7.3
New York	1.15	34.4	9.24	1.8
Ohio	2.60	38.0	3.17	3.7
Oklahoma	.59	16.1	6.46	9.4
Oregon	1.57	43.1	13.89	7.9
Pennsylvania	1.01	39.9	7.06	2.7
Rhode Island	.61	27.4	12.39	1.8
Vermont	.75	18.9	5.00	11.9
Washington	1.89	53.3	8.52	6.6
West Virginia	2.00	44.1	7.08	4.4
Wisconsin	.90	38.3	4.49	11.5

$\bar{X} = 32.9\%$
$\bar{X} = .24\%/\text{yr}.$

Table 2. Right-to-Work States.

State	Degree of Conflict 1957-1962	Degree of Unioni- zation	Sector A	Agricul- tural Labor Force
Alabama	2.52%	24.9%	13.5%	9.8%
Arizona	2.93	24.7	8.5	8.1
Arkansas	2.34	21.5	11.5	17.7
Florida	.70	16.2	9.6	6.8
Georgia	.48	15.0	33.9	9.2
Indiana*	2.89	40.0	5.1	6.5
Iowa	1.00	25.0	14.7	20.7
Kansas	.85	23.9	9.6	13.3
Louisiana†	.98	19.5	16.8	7.8
Mississippi	.20	14.7	22.1	21.4
Nebraska	.75	19.7	22.0	21.2
Nevada	1.70	30.4	22.3	4.6
North Carolina	.15	18.3	40.5	13.0
North Dakota	.19	15.6	50.0	32.8
South Carolina	.08	8.3	39.6	11.9
South Dakota	.20	14.4	47.5	30.6
Tennessee	.84	22.6	17.5	10.1
Texas	.78	16.7	11.9	8.8
Utah	3.16	26.3	5.3	6.0
Virginia	.34	17.4	11.9	7.8
Wyoming	.78	28.6	12.0	13.6

*Indiana law repealed 1965.
†Louisiana statute applicable only to agri-culture.