RIGHT-TO-WORK LEGISLATION AND EMPLOYMENT GROWTH IN THE 1980s: A SHIFT-SHARE ANALYSIS

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Introduction

Section 14-B of the Taft-Hartley Act grants states the right to enact legislation that prohibits collective bargaining contracts from including clauses requiring union membership as a condition of continuing employment. Since the passage of Taft-Hartley in 1947 more than 20 states have passed right-to-work laws that effectively prevent union shop agreements. Right-to-work laws have been and continue to be a source of public controversy. Opponents argue that right-to-work legislation reduces union security and thereby weakens labor's position relative to management. Supporters of right-to-work laws often express their argument in terms of individual liberties and the worker's freedom to engage in personal contracts. The right-to-work debate has always been charged with emotion due to the vital issues involved. Recently a new issue has surfaced in the right-to-work controversy that is likely to expand the scope of the on-going debate. Economic development agencies and councils in right-to-work states have begun using their right-to-work status as an advertising tool to attract new industry. Such groups argue that right-to-work laws create an economic climate within local labor markets that is more conducive to economic growth. The purpose of this paper is to analyze the differences in employment growth rates between right-to-work and non-right-to-work states in order to examine this claim.

In the following section we will discuss the hypothesized economic impact of right-to-work legislation and the current economic status of right-to-work states. Next we will analyze the differences in employment growth patterns between right-to-work and non-right-to-work states by employing a descriptive technique often utilized in the regional development literature; shift-share analysis. In the final sections we will present the implications and conclusions drawn from our empirical results.

The Economics of Right-to-Work Legislation

Previous economic analyses of the right-to-work controversy have mainly concentrated on the union security aspects of the debate. Specifically, empirical researchers have analyzed the effects of right-to-work laws on the extent of unionization and its corresponding economic

effects within a state. A review of the literature suggests that right-to-work legislation may not have a significant economic impact but may merely reflect a state's prevailing political, social, economic conditions (See Lumsden and Petersen [6], Warren and Strauss [12], Wessels [13], Moore and Newman [9], and Moore, Dunlevey, and Newman [10].) However, the results of these studies have not gone uncriticized. Recently, Carroll [1,2] has shown that while right-to-work laws may not destroy unions by significantly reducing their absolute membership levels, they do impede the growth of unionization thereby creating a negative wage effect within right-to-work states. Carroll further reports that a positive employment effect appears to accompany the relative decline in wages [1, p. 499]. If a right-to-work law is an effective development tool, strong positive employment growth rates should be observed in the state's industrial sectors as they gain a competitive wage advantage due to the legislation.

Over time, right-to-work states as a group have increased their share of national industrial employment. As seen in Figure 1, the percent of national manufacturing employment located in right-to-work states has increased very steadily from about 12 percent in 1947 to approximately 30 percent by 1985. A portion of this growth is attributable to the fact that the number of right-to-work states has increased over time. In 1947, 12 states had right-to-work laws, and in the 1950s, seven states enacted such legislation. The decades of the 1960s, 1970s, and 1980s each experienced only one new right-to-work state. Thus, most of the trend since 1960 reflects real increases in the share of employment located in states with right-to-work laws and not merely increases in the base. (The slight drop in the trend's level observed in the late 1960s is due to the fact that Indiana, with a relatively large industrial base, repealed its right-to-work law at that time.)

When the annual growth rate of manufacturing employment in right-to-work states is compared to the national average over time, an interesting trend emerges. As seen in Figure 2, for most cycles between 1947 and 1985 the growth rate in right-to-work states experiences a higher peak and trough than the national rate. While the magnitudes of the fluctuations are very similar, the right-to-work growth rate level is consistently above the national level from 1950 through 1985. This observation tends to suggest that inherent differences may exist between right-to-work states and the rest of the nation with respect to the components of industrial employment growth. Our analysis will attempt to uncover any such differences.

Due to the changing number of states with right-to-work laws and problems associated with compiling state employment data that is statistically comparable over time, our analysis will focus on the 1980-

1985 time frame. During this period a constant 20 states enforced right-to-work laws. These states that compose our right-to-work region are listed in Table 1.

It is often noted that the majority of right-to-work states are located in the South and therefore right-to-work laws may simply reflect the prevailing social and political preferences of the region. However, it has been shown that the right-to-work region is statistically different from standard definitions of the south. (See Carroll, [1].) Given that some relatively underdeveloped western states have enacted right-to-work legislation, it has been suggested that workers in such states may be willing to trade union security and accept lower wages for employment growth. (See Palomba and Palomba [11].) From an development viewpoint, right-to-work laws may thus not only cause low relative wages, as Carroll suggests, but also serve as a public choice signal regarding the state's labor market preferences.

An abbreviated labor market profile of the right-to-work region is found in Table 2. The importance of this region is obvious in the population and labor force statistics. Approximately one-third of the labor force lives and works in a right-to-work state. The mean rate of unionization in the right-to-work region is substantially lower than that found in the rest of the nation. It has been noted that lower levels of unionization existed in right-to-work states prior to Taft-Hartley, but as Carroll suggests, the right-to-work status of the region may inhibit union growth relative to the non-right-to-work region. (This effect is highly important in light of the continuing decline in overall union membership levels. See McConnell and Brue [8, pp. 196-202].) Theoretically, lower rates of unionization result in union wage effects of smaller magnitude. (See Lewis [5].) From the data in Table 2, it is obvious that the right-to-work region exhibits substantially smaller average hourly earnings coupled with a lower mean state unemployment rate than the non-right-to-work region. Such observations are in agreement with the contention that labor market participants in right-to-work states may be accepting lower wage conditions in return for stronger employment prospects. Descriptive statistics such as those presented here can not determine if the right-to-work law causes such a trade-off or whether the willingness to accept such a situation causes the populace to seek right-to-work legislation. However, if systematic differences do exist in the labor markets of right-to-work states that favor stronger rates of employment growth, the question of causation is a moot point for those concerned with economic development.

Empirical Analysis

Table 3 presents the rate of employment growth between 1980 and 1985 for the right-to-work and non-right-to-work regions. Growth rates are shown for the seven major nonagricultural industrial sectors in each region. It is clear from the statistics in Table 3 that the right-to-work region outperformed the non-right-to-work region in each industrial sector. This is true for all sectors regardless of whether the sector is strongly unionized or not. The changing structure of the national labor market is seen in the negative rates of growth in manufacturing employment and the very strong positive rates of growth in the service sectors for both regions. However, the right-to-work region experienced a negative growth rate in manufacturing approximately one-tenth that observed in the non-right-to-work region and substantially larger employment growth rates in both the services and finance, insurance, and real estate sectors. Relatively higher rates of employment growth are also observed in all the other right-to-work industrial sectors.

In order to identify these differences in the patterns of employment growth between right-to-work and non-right-to-work states, we employ the Esteban-Marquillas transformation of the classical shift-share technique [3]. Shift-share analysis is a method of disaggregating regional employment growth into the economic components responsible for that growth. While a number of shift-share techniques have appeared in the literature over the years, we chose to employ the Esteban-Marquillas formulation due to its ability to identify a region's sectors of comparative specialization. Specifically, the Esteban-Marquillas version of shift-share analysis decomposes the change over time in regional employment, d, into the following effects: national growth, g, industry mix, m, competitive position, c, and industry allocation, a. The Esteban-Marquillas technique has been criticized in the literature by Herzog and Olsen [4], but recent examination of its structure indicates it is an appropriate formulation for analyses similar to this one. (See Machunda [7].) Given that a variety of shift-share techniques are often used by regional scientists and that a standard set of definitions and terms has yet to be agreed upon, it is useful to present the mathematical formulas and terms employed here. Thus, for industrial sector i in region j, the shift-share equation is written as

$$d_{ij} = g_{ij} + m_{ij} + c_{ij} + a_{ij}$$

The standard definitional formulas used to calculate the Esteban-Marquillas shift-share variables can be expressed in the following manner:

$d_{ij} = E^*_{ij} - E_{ij}$

$g_{ij} = E_{ij}(r_{us})$

$m_{ij} = E_{ij}(r_{i,us} - r_{us})$

$c_{ij} = (E_j(E_{i,us}/E_{us}))(r_{ij} - r_{i,us})$

$a_{ij} = (E_{ij} - (E_j(E_{i,us}/E_{us}))(r_{ij} - r_{i,us})$

where r_{ij}, $r_{i,us}$, and r_{us} reflect regional and national employment growth rates defined as

$r_{ij} = (E^*_{ij} - E_{ij})/E_{ij}$

$r_{i,us} = (E^*_{i,us} - E_{i,us})/E_{i,us}$

$r_{us} = (E^*_{us} - E_{us})/E_{us}$

and E represents employment at the beginning of the time period and E* represents employment at the end of the time period. The US subscripts reflect the national total for the respective measures of employment.

Shift-share analysis essentially charges a region's industrial sectors with the rate of employment growth that is observed in the national economy over the analysis period. The national growth rate component, g, measures the national share of employment that the region would command if industries in the region grow at the overall national rate. The difference between actual regional growth, d, and the national growth component, g, reflect the shift of industries within the region. The industry mix effect, m, measures the region's rate of growth in industrial sector i relative to the differential between that sector's national growth rate and the overall national growth rate. The competitive position effect, c, reflects the rate of employment growth in the region's industrial sectors relative to employment growth in the same industrial sectors at the national level. The allocation effect, a, reflects the employment that would be observed in the regional industrial sectors if the region's structure of employment mirrored that of the national structure.

While shift-share analysis can not determine the causation of regional employment growth, it is a useful tool to help describe the conditions under which growth is occurring. If the national growth rate component, g, is greater than the actual change in employment, d, we can conclude that the region's share of national employment is

expanding. If g < d, then the region's share of employment is contracting. A positive industry mix component, m, implies the region has a favorable distribution of nationally fast growing industries while a negative m indicates the region contains an unfavorable distribution of slow growing industries. If the competitive position component, c, is positive, the region enjoys a distribution of industries that are growing faster than those same industries nationally. A negative c therefore implies the region's industries are growing slower than their counterparts nationally. The industry allocation component, a, is interpreted as a measure of a region's degree of specialization in those industrial sectors in which it enjoys a comparative advantage. (See Esteban-Marquillas [3] and Herzog and Olsen, [4].)

Table 4 presents the shift-share components for both the right-to-work and non-right-to-work regions calculated by major industrial sector for the 1980-1985 time frame. Examination of the results by sector and in total reveals information concerning the forces that determine the differences observed in employment growth between the two regions.

Looking at the totals across all sectors first, it is seen that the actual change in employment, d, is greater than the national growth component, g, for the right-to-work region. This indicates that the region's share of national employment is expanding and that a positive net shift of employment into the region is occurring. (The positive net shift is validated by the positive sum of the m, c, and a components.) The opposite is found for the non-right-to-work region. The actual change in employment in the non-right-to-work region is less than what would be observed if overall employment grew at the aggregate national rate (d < g). Thus, the share of national employment is contracting and a negative shift of jobs out of this region is occurring ((m + c + a) < 0). Such findings are consistent with recent trends of labor migration from northern, primarily non-right-to-work states, to southern, primarily right-to-work states.

Both regions demonstrate a total negative industrial mix component, m. This result indicates that a large proportion of nationally slow growing industries are located in each region. Looking at the industry mix components across industrial sectors, both regions reflect negative m components in manufacturing, government, transportation and utilities, and construction. Thus, these industrial sectors placed a drag on employment growth over the 1980-1985 time period for the nation as a whole. The right-to-work and non-right-to-work regions experienced a similar situation with regard to their industrial mix during the period in question.

The right-to-work region demonstrates a positive total competitive position component, c. In fact, each industrial sector of the right-to-work

region is found to have a positive c. This indicates that all industrial sectors in the right-to-work region experienced employment growth at a faster rate than the same industrial sectors when measured at the national level. The faster than national rate of employment growth in this region is the determining factor of the increased shift in employment into the region. Just the opposite situation is uncovered for the non-right-to-work region. Negative c's are found in each non-right-to-work industrial sector, suggesting that this region's industrial employment is growing at a slower pace than that observed within the same industries nationally.

The interpretation of the industry allocation component, a, involves examining its sign and the corresponding signs of its mathematical components. (See Herzog and Olsen [4, p. 445].) Negative a's are found for both regions in the manufacturing, services, and finance, insurance, and real estate sectors. For the right-to-work region, this implies a competitive advantage ($r_{ij} > r_{i,us}$) in these sectors, but the region is underspecializing in them ($E_{ij} < E_j(E_{i,us}/E_{us})$). For the non-right-to-work region, these sectors are at a competitive disadvantage ($r_{ij} < r_{i,us}$) while they are specialized in them ($E_{ij} < E_j(E_{i,us}/E_{us})$). We would thus anticipate a shifting of the industrial base away from these sectors in the non-right-to-work region with corresponding increases in the importance of these sectors in the right-to-work region. Such patterns are again consistent with current trends in employment and industrial growth and relocation.

Conclusions

The use of shift-share techniques to analyze employment growth across regions defined by right-to-work status has revealed some interesting and important differences. First, the right-to-work region's share of national employment is increasing with a corresponding decrease in the proportion of aggregate employment being found in non-right-to-work states. This indicates a shift of the employment base to states with right-to-work legislation in place. Second, both the right-to-work and non-right-to-work regions suffer from a mix of slow growing industries. Specifically, the manufacturing, government, transportation and utilities, and construction sectors are found to negatively contribute to employment growth for both regions. Third, the right-to-work region appears to enjoy a competitive advantage in employment growth relative to the non-right-to-work region. Industries in the right-to-work region are experiencing faster rates of growth than those industries at the national level. Fourth and finally, the right-to-work region is found to be underspecialized in the manufacturing and service sectors, even though the region enjoys a competitive advantage in those sectors. This

suggests that we should expect to see an increasingly important role played by these sectors in right-to-work states.

It is important to point out the limitations of this analysis. We have not shown that right-to-work laws cause the effects discussed above. We have only shown that distinct differences do exist between right-to-work and non-right-to-work states with respect to employment growth patterns across industrial sectors. It is possible that the employment differences uncovered may reflect deeper social, political, and economic structural patterns that actually encourage the adoption of a right-to-work law. Further, this study has not attempted to address the possibility that right-to-work laws may have significant social consequences outside of affecting aggregate employment growth rates. Additional research is needed to settle the debate regarding the direction of causation and to explore other variables that may be influenced by a right-to-work law. However, for those concerned about economic development, it is clear from our results that stronger employment growth patterns are associated with the right-to-work status of a state.

Endnote

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Table 1
The Right-to-Work Region:
States with Right-to-Work Laws 1980-1985

Alabama
Arizona
Arkansas
Florida
Georgia
Iowa
Kansas
Louisiana
Mississippi
Nebraska
Nevada
North Carolina
North Dakota
South Carolina
South Dakota
Tennessee
Texas
Utah
Virginia
Wyoming

Table 2
1985 Employment Profile of the Right-to-Work and Non-Right-to-Work Regions

Variable	RTW	Non-RTW
Resident Population	81,866,000	156,874,000
Labor Force	39,129,000	76,332,000
Employment	35,903,000	71,247,000
Mean Percent of Employed Labor Force Unionized	13.6	24.1
Mean Unemployment Rate	7.0	7.3
Average Hourly Wage Production Workers	$8.65	$9.84

Table 3
Percentage Change in Employment 1980-1985
by Industrial Sector and Region

Sector	RTW	Non-RTW
Manufacturing (24)	-0.73	-7.17
Wholesale and Retail Trade (7)	18.51	12.37
Government (36)	4.59	-1.41
Services (6)	28.67	20.26
Transportation and Utilities (35)	6.00	0.18
Finance, Insurance, Real Estate (3)	21.46	13.59
Construction (22)	9.45	6.58

( ) Percent of industry employees nationally that belong to unions.

Table 4
Shift-Share Analysis of Employment Growth: 1980-1985

	RTW					Non-RTW				
Sector	d	g	m	c	a	d	g	m	c	a
Manufacturing	-44	539	-856	292	-19	-1031	1291	-2049	-256	-8
Wholesale & Retail Trade	1227	596	357	266	8	1702	1236	740	-279	4
Government	254	497	-464	209	12	-156	995	-929	-227	6
Services	1480	464	707	337	-28	2576	1142	1742	-297	-11
Transportation and Utilities	102	153	-117	63	3	6	307	-235	-68	2
Finance, Insurance Real Estate	323	135	104	91	-7	496	327	252	-81	-3
Construction	169	161	-22	23	7	166	227	-31	-35	5
Totals	3511	2545	-291	1281	-23	3579	5525	-510	-1252	-5

All employment figures in thousands.

Figure 1
Percent of Manufacturing Employment

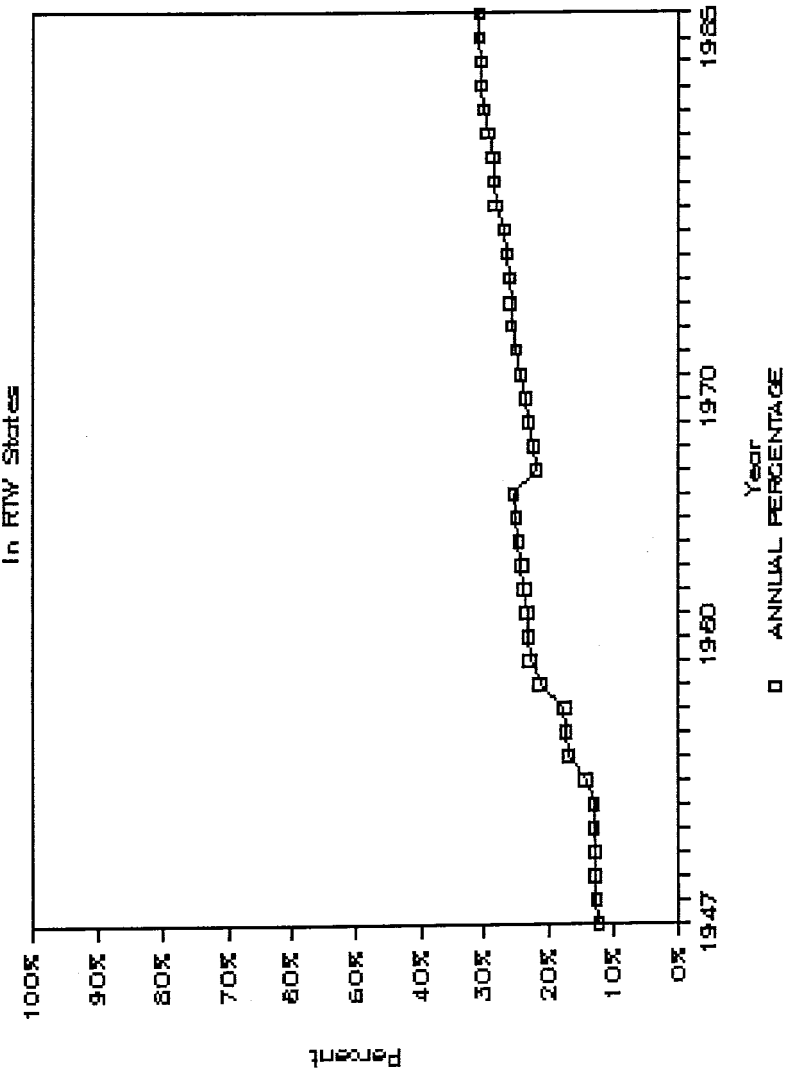
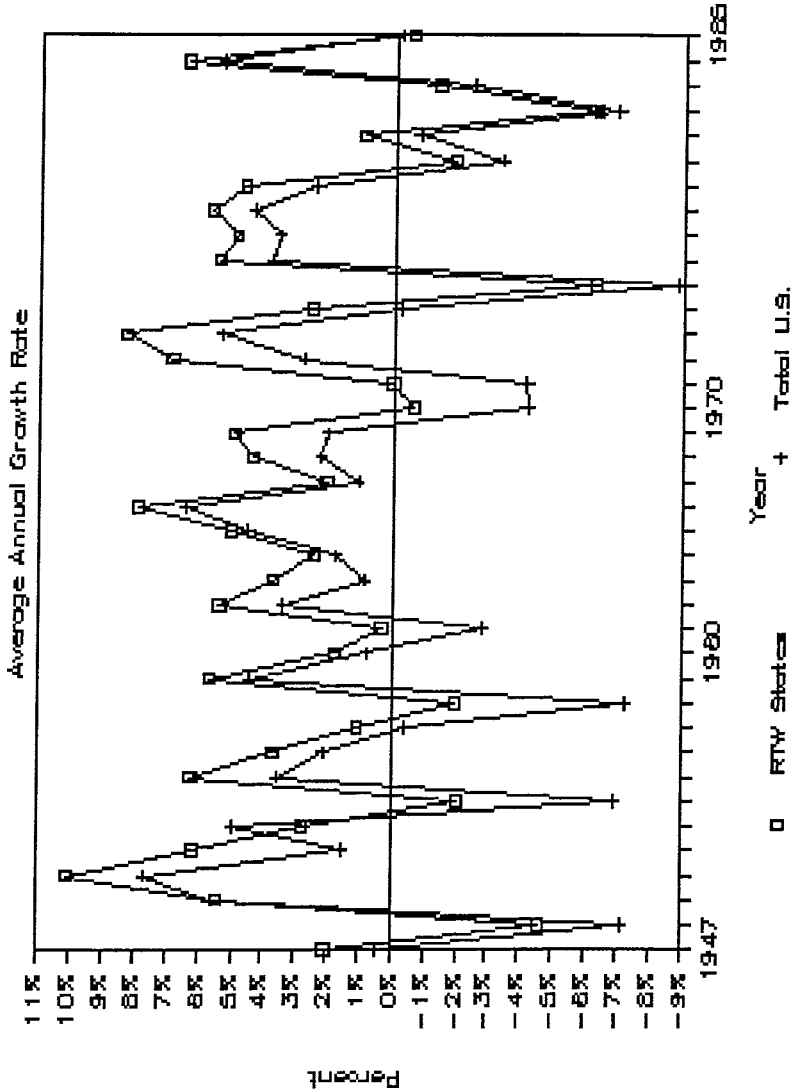


Figure 2
Manufacturing Employment in Right-to-Work States



Time series data on state manufacturing employment as reported in Figures 1 and 2 can be found in *Handbook of Labor Statistics*, various issues (U.S. Department of Labor, Washington, D.C.) All data used to construct statistics reported in Tables 1 through 4 can be found in *Statistical Abstract of the United States 1987* (U.S. Department of Commerce, Washington, D.C.)