

# Union Decline and Economic Redistribution

## *A Report on Twelve Midwest States*



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## EXECUTIVE SUMMARY

Inequality has risen to historically high levels in the United States. While there are many causes, the most important labor market change has been the long-term decline in labor union membership. Unions raise wages, particularly for lower-income and middle-class workers. Union decline explains between one-fifth and one-third of the overall increase in inequality in the United States.

### **Union decline lowers labor's share of state economies and raises capital's share of state economies:**

- In the Midwest, the correlation between the union coverage rate and labor's share of the economy is +0.71 and the correlation between the union coverage rate and capital's share of the economy is -0.70.
- The state with the most significant relationship is Wisconsin, where unionization was highly correlated with both labor's share of the economy (+0.83) and capital's share of the economy (-0.84).
- Recently, union coverage rate in the Midwest has fallen by more than the national trend. The largest union declines occurred in Michigan and Wisconsin, where "right-to-work" laws have been passed.

### **Union decline accounts for approximately two-fifths (42 percent) of the overall drop in labor's share of the economic value generated across the Midwest from 1997 to 2014:**

1. Illinois: Labor's share of the economy declined by 1.2 percentage point. Union decline explains about 90% of this drop.
2. Indiana: Labor's share declined by 6.0 percentage points. Union decline explains about 19%.
3. Iowa: Labor's share declined by 1.6 percentage point. Union decline explains about 55%.
4. Kansas: Labor's share declined by 2.1 percentage points. Union decline explains about 16%.
5. Michigan: Labor's share declined by 3.2 percentage points. Union decline explains about 78%.
6. Minnesota: Labor's share declined by 2.1 percentage point. Union decline explains about 82%.
7. Missouri: Labor's share grew insignificantly by 0.2 percentage point, the lone exception in the Midwest.
8. Nebraska: Labor's share declined by 5.3 percentage points. Union decline explains about 18%.
9. North Dakota: Labor's share declined by 6.6 percentage points. Union decline explains about 14%.
10. Ohio: Labor's share declined by 3.4 percentage points. Union decline explains about 55%.
11. South Dakota: Labor's share declined by 3.6 percentage points. Union decline explains about 20%.
12. Wisconsin: Labor's share declined by 2.9 percentage point. Union decline explains about 75%.

Unions help workers take home a larger share of the economic value they create. As unionization has declined across the Midwest, economic output has been redistributed from labor to capital.

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## INTRODUCTION

Inequality has risen to historically high levels in the United States. This inequality has been characterized by significant economic gains among the very wealthy. Since 1979, the incomes of the top 20 percent of American households increased by much more than the incomes of middle-class households ([Armour et al., 2013](#)). In the years directly following the Great Recession, the top 1 percent of earners captured all new economic wealth created in America, while the bottom 99 percent actually saw their incomes shrink after adjusting for inflation ([Saez, 2013](#)).

If inequality is not addressed, the economy will suffer and the middle class will experience the largest consequences. Redistribution of wealth to the rich can reduce overall consumer demand because poor and middle-class American families spend a larger share of their incomes in the economy ([Dynan et al., 2004](#)). Additionally, rising inequality can polarize opportunities, with the poor having fewer resources to invest in their own education, borrow money, or start a new business venture ([Krueger, 2012](#)). Finally, extreme levels of inequality can have real social repercussions by increasing the probability of financial crises ([Berg & Ostry, 2011](#)), raising mortality rates ([Case & Deaton, 2015](#)), increasing crime rates ([Chintrakarn & Dierk, 2012](#)), and reducing overall satisfaction and happiness across the country ([Sacks et al., 2012](#)).

The cause of economic inequality is rooted in several recent economic trends. Structural changes in the American economy—such as increased globalization and the polarization of jobs into good, high-skilled occupations and poor, low-skilled occupations—have played a key role ([Autor, 2010](#)). Dramatic hikes in CEO pay compared to the average worker are also a factor: The average CEO earned 29 times the amount his or her workers earned on average in 1978, but it is over 300 times today ([Mishel & Davis, 2015](#)). In addition, the declining real value of the minimum wage has particularly been a factor in worsening inequality among women ([U.S. Joint Economic Committee, 2010](#)).

## DECLINING UNIONIZATION HAS BEEN A MAJOR CAUSE OF HIGHER INEQUALITY

By far, the most important labor market change that has caused worsening inequality in America has been the long-term decline in labor union membership. Unions have been found to raise worker wages by between 10 and 17 percent ([Card, 1992](#)), which has held over time ([Manzo et al., 2016](#); [Schmitt, 2008](#); [Hirsch & Macpherson, 2006](#)).

Most significantly, lower- and middle-class workers benefit most from unionization. Recently, the average union wage premium was 12 percent across America; however, hourly wages for the lowest earners were boosted by 15 to 21 percent and by 14 percent for the median worker. Accordingly, “unions benefit lower- and middle-wage workers most,” helping to reduce wage inequality ([Schmitt, 2008](#)). The wage gap has also been found to be 25 percent lower in unionized workplaces than in nonunion companies. As a result, in the 1980s and 1990s, unionization reduced wage inequality in the national economy by as much as 10 percent ([Freeman, 1996](#)).

Conversely, recent research has concluded that shrinking unionization for male workers has been the primary cause for the rise of income inequality ([Gordon & Dew-Becker, 2008](#)). Because unions equalize the wage distribution and institute norms for fair pay, the decline in unionization rates explains between one-fifth and one-third of the overall growth in inequality in America ([Western & Rosenfeld, 2011](#)). The Economic Policy Institute corroborates this conclusion, affirming that “de-unionization can explain about a third of the entire growth of wage inequality among men and around a fifth of the growth among women from 1973 to 2007” ([Mishel, 2012](#)). Finally, the International Monetary Fund (IMF) found that “[t]he decline in unionization is strongly associated with the rise of income shares at the top” and explains about half of the rise in income inequality ([Jaumotte & Osorio Buitron, 2015](#)).

Unionization has declined precipitously due to the proliferation of “right-to-work” (RTW) laws, especially in the Midwest. A “right-to-work” law is a government regulation which prohibits workers and employers from including union security clauses into contracts. Union security clauses ensure that all workers who receive the benefits of collective bargaining pay a fair share of dues or fees for the services provided. A “right-to-work” law makes the payment of dues or fees optional for all employees in a workplace, allowing workers to “free ride” on the efforts and contributions of others. Thus, workers can enjoy the higher wages, better health and retirement benefits, legal and grievance representation, and other perks earned by the union without paying their fair share. As a result, RTW laws have been found to reduce union membership by 5 and 10 percentage points ([Manzo & Bruno, 2014](#); [Hogler et al., 2004](#); [Moore, 1980](#)).

By reducing unionization, RTW laws have been one factor in redistributing income from workers to owners. Economic studies consistently show that “right-to-work” reduces worker earnings by 3 to 4 percent on average ([Gould & Kimball, 2015](#); [Bruno & Manzo, 2014](#); [Gould & Shierholz, 2011](#)). The laws also reduce the wages of nonunion workers by 3 percent ([Lafer, 2011](#)). Furthermore, [Stevens \(2009\)](#) found that worker wages and per capita income are both lower, on average, in states with RTW laws. Specifically, RTW lowers wages by 2.3 percent and increases owner income by 1.9 percent, indicating that the law results in a transfer of income from workers to owners with “little ‘trickle-down’ to the largely non-unionized workforce in these states” ([Stevens, 2009](#)). The share of the economy captured by workers through employee compensation is higher in states without RTW laws, while the share of the economy captured by capital through owner income, corporate profits, machinery, and transfer payments is higher in states with RTW laws ([Bruno & Manzo, 2014](#)). One can conclude that the true intent of “right-to-work” laws is based on ideological motivations: “less influence for unions, less bargaining power for workers, more wealth for the wealthy, and more misery from the immiserated” ([Hogler, 2011](#)).



## DATA AND METHODOLOGY

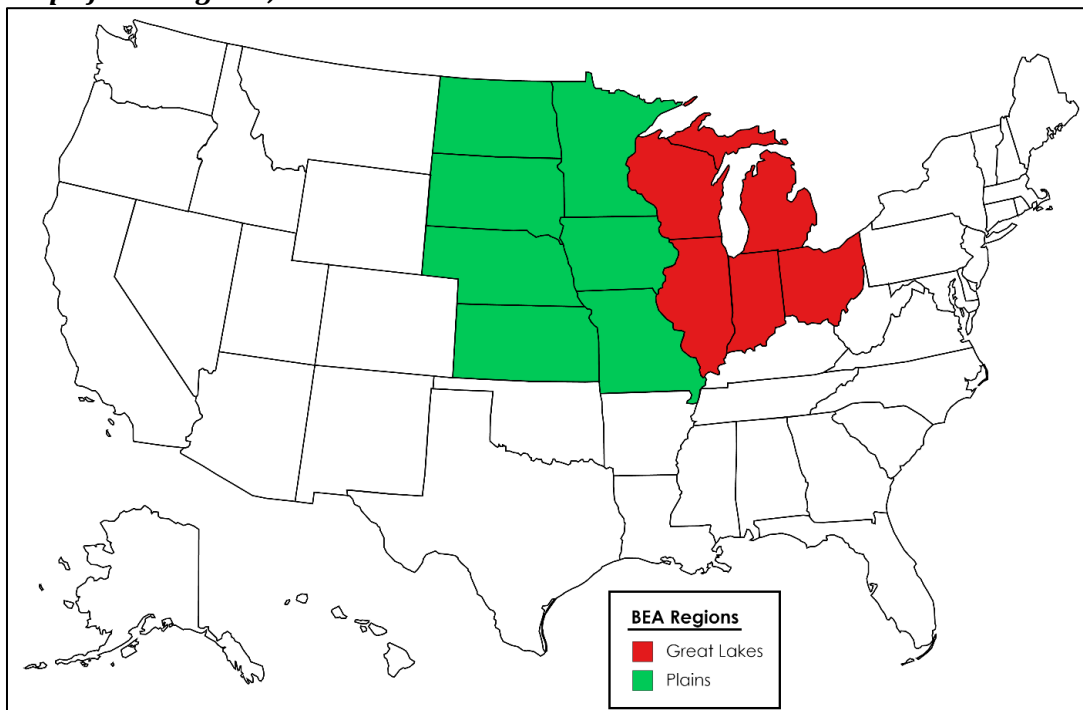
This report primarily utilizes data from the Bureau of Economic Analysis (BEA) at the U.S. Department of Commerce from 1997 to 2014. This report utilizes gross domestic product (GDP) data at the state level (BEA, 2017). The two main components of GDP measured by the BEA are “compensation of employees” and “gross operating surplus.”

- Compensation of employees calculates the total wages, salaries, and supplemental income earned by employees. Compensation of employees includes employer contributions paid to employee pension funds, employee insurance funds, and social insurance. “Compensation of employees” is referred to as **labor** in this report.
- Gross operating surplus calculates owners’ income, corporate profits, the value of fixed assets and machinery, and net business transfer payments. “Gross operating surplus” is referred to as **capital** in this report.

The BEA has eight regional classifications comprising states that have interconnected economies. Two of the regions include states that have traditionally been considered part of the Midwest (Figure 1). The Great Lakes region comprises Illinois, Indiana, Michigan, Ohio, and Wisconsin and the Plains region includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. The 12 states utilized in this regional study generally align with a 2014 survey by *FiveThirtyEight*, which asked self-identified Midwesterners what states they considered part of the Midwest (Hickey, 2014).

The labor and capital shares of each state’s economy are matched with state-level data on unionization by year. Hirsch and Macpherson (2016) provide estimates of private and public sector union membership and coverage for U.S. states based on data from the *Current Population Survey*, which is conducted monthly by the U.S. Census Bureau. Estimates by state, industry, and occupation begin in 1983 and currently go through 2015. The union coverage rate is the share of workers in a state that are union members or work at a job with a union or employee association contract. The full dataset thus includes annual estimates for all 12 states over the 18-year period of analysis, or 218 total observations of union coverage rates and the labor-capital shares of state economic value.

**Figure 1: Map of BEA Regions, Great Lakes States and Plains States**



This report primarily uses correlation coefficients and graphs to identify general associations. Correlation coefficients range from -1.0 to +1.0. A -1.0 correlation indicates that the two variables have a perfectly negative relationship with one another, while a +1.0 correlation implies a perfectly positive relationship. A correlation of 0.0 would mean that the variables have no relationship to one another. The following parameters, in accordance with standards of social science in both Turkmen (2013) and Cohen (1992), are used to determine the “strength” of a relationship between two variables when evaluating correlation coefficients.

- Less than 0.1: no relationship;
- 0.1 to 0.3: weak relationship;
- 0.3 to 0.5: moderate relationship;
- Greater than 0.5: strong relationship.

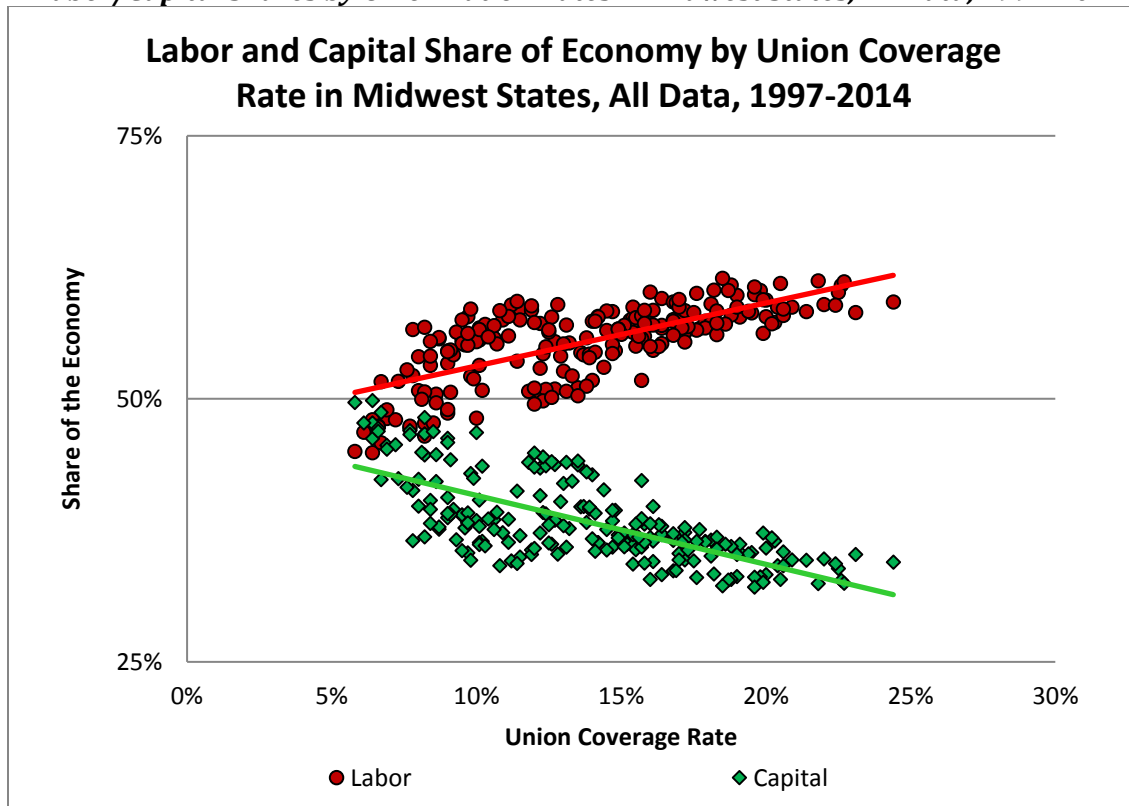
## UNION DECLINE LOWERS LABOR'S SHARE AND RAISES CAPITAL'S SHARE OF THE ECONOMY

Figure 2 is an analysis of all the data and reveals the most notable finding of the entire report. Labor's share of the state economy is presented in red, while capital's share of the state economy is represented in green. The figure illustrates two unmistakable associations with union coverage rates. First, as the state-level union coverage rate increases from left to right, labor's share of the state economy increases. The correlation between the union coverage rate and labor's share of the economy is  $+0.71$ , indicating a strong positive relationship in the Midwest. Second, as the state-level union coverage rate increases from left to right, capital's share of the state economy declines. The correlation between the union coverage rate and capital's share of the economy is  $-0.70$ , indicating a strong negative relationship in the Midwest.

Since unionization has been declining across the Midwest, states have “moved left” on the graph, resulting in lower labor shares of the economy, with capital capturing new economic wealth (Figure 2). Figures 3 and 4 demonstrate this phenomenon, comparing data from 2000 and 2014 as an example.

At the turn of the century, the union coverage rates of Midwest states ranged from 6.7 percent in South Dakota to 21.8 percent in Michigan (Figure 3). Ten of the 12 Midwest states had a union coverage rate above 10 percent (Figure 4). As a result, workers captured over 50 percent of economic output through compensation in all Midwestern states, while owners and machinery accounted for 32.4 percent of Michigan's economy. By 2014, however, the union coverage rates of Midwest states declined, ranging from 6.1 percent in South Dakota to just 16.0 percent in Illinois. Only 7 of the 12 states had a union coverage rate above 10 percent. The share of the economy captured by labor fell below 50 percent in three states— Nebraska, North Dakota, and South Dakota—while capital's share rose in every state.

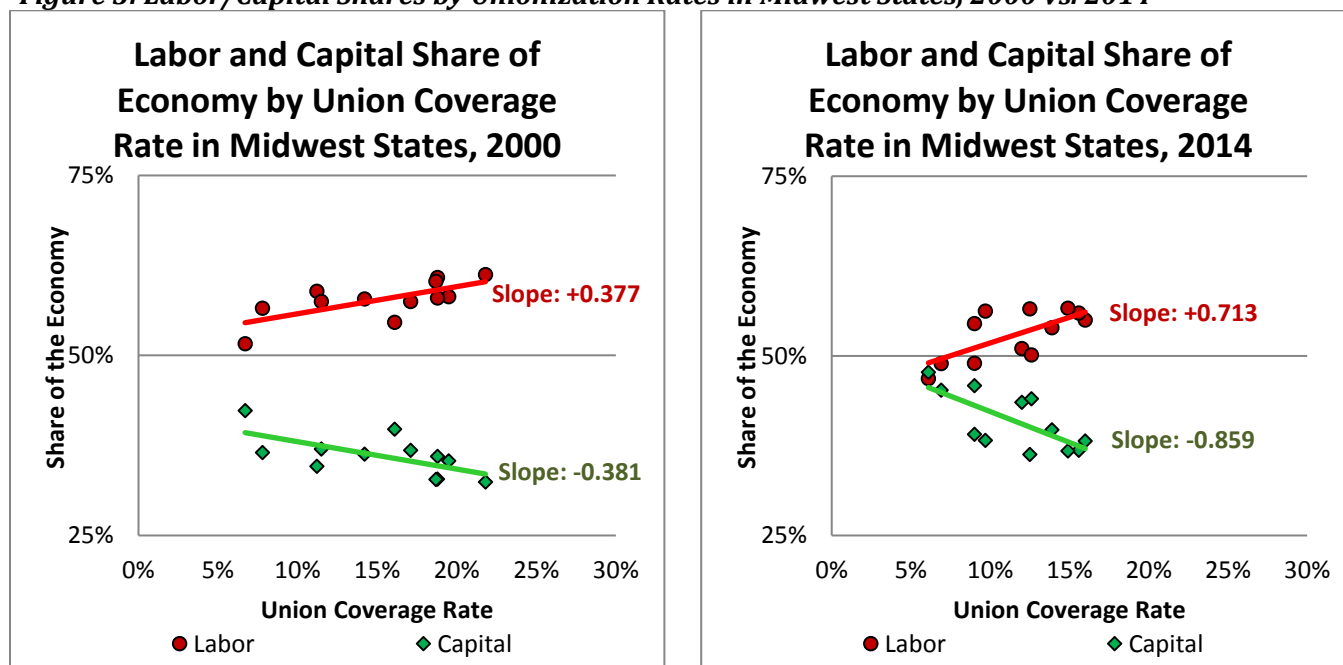
**Figure 2: Labor/Capital Shares by Unionization Rates in Midwest States, All Data, 1997-2014**





Clear relationships exist between state-level union coverage rates and the state-level distribution of labor and capital in both 2000 and 2014 (Figures 3 and 4). Similar graphs for all years from 1997 through 2014 and a table reporting correlation coefficients by year can be found in the Appendix of this report (Page 26).

**Figure 3: Labor/Capital Shares by Unionization Rates in Midwest States, 2000 vs. 2014**

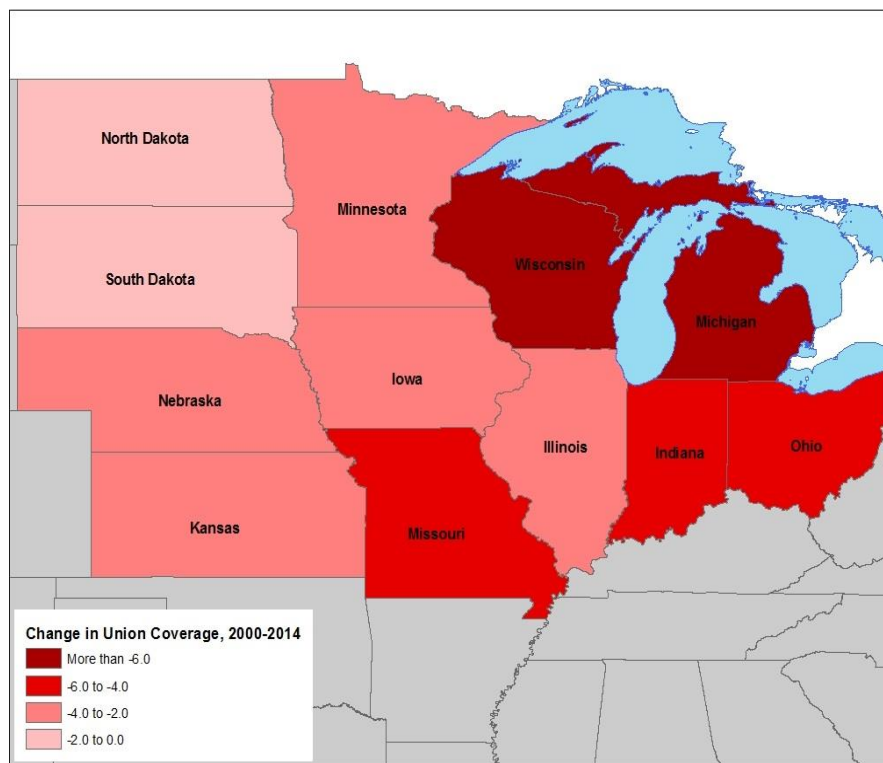


**Figure 4: Labor/Capital Shares by Unionization Rates by State in the Midwest, 2000 vs. 2014**

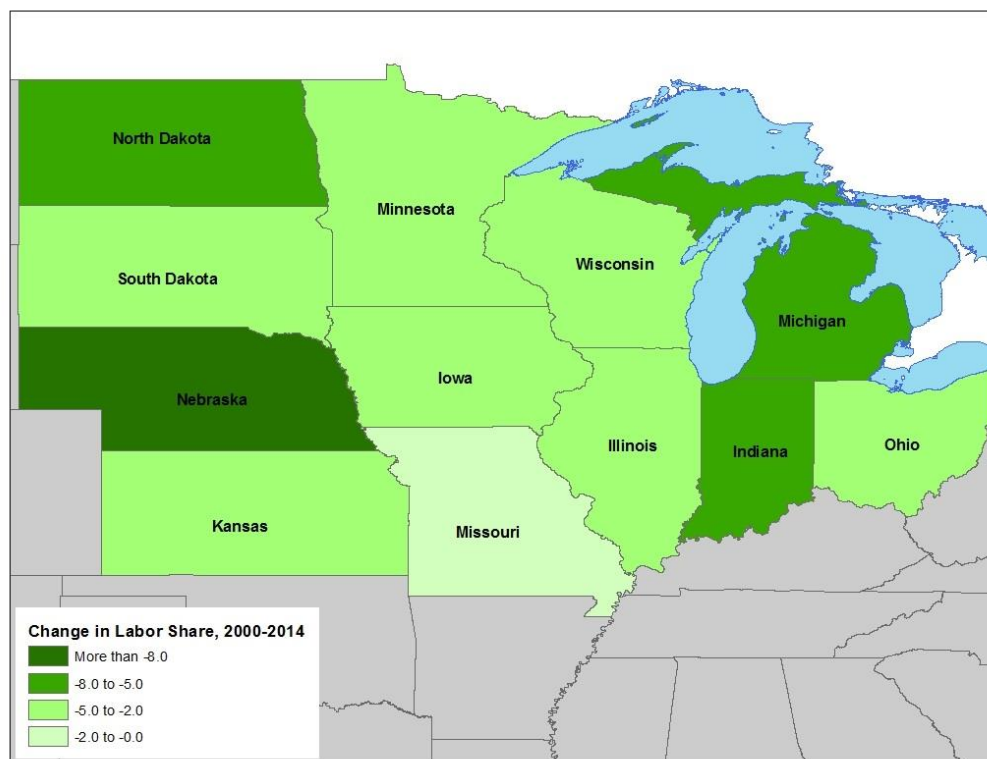
Year	2000			2014		
State	Union Coverage	Labor Share Of Economy	Capital Share of Economy	Union Coverage	Labor Share Of Economy	Capital Share of Economy
Illinois	19.5%	58.1%	35.4%	16.0%	55.0%	38.1%
Indiana	17.1%	57.5%	36.8%	12.0%	51.0%	43.5%
Iowa	16.1%	54.6%	39.7%	12.6%	50.1%	44.0%
Kansas	11.2%	58.9%	34.6%	9.0%	54.5%	39.1%
Michigan	21.8%	61.2%	32.4%	15.6%	56.0%	36.8%
Minnesota	18.8%	60.8%	32.8%	14.9%	56.6%	36.8%
Missouri	14.2%	57.8%	36.3%	9.7%	56.2%	38.2%
Nebraska	11.5%	57.5%	37.0%	9.0%	49.0%	45.9%
North Dakota	7.8%	56.6%	36.5%	6.9%	48.9%	45.2%
Ohio	18.8%	58.0%	36.0%	13.9%	53.9%	39.7%
South Dakota	6.7%	51.6%	42.3%	6.1%	46.8%	47.7%
Wisconsin	18.7%	60.3%	32.8%	12.5%	56.5%	36.3%

The regional changes in union coverage, labor's share of the economy, and capital's share of the economy from Figure 4 are respectively mapped out in Figures 5, 6, and 7 on the next two pages. The geographic representations make it clear that union coverage has generally declined most in states that adopted new RTW laws (Figure 5). In addition, the redistribution of economic wealth from workers to owners has noticeably occurred in North Dakota, Nebraska, and Indiana since the new millennium (Figures 6 and 7).

**Figure 5: Map of the Change in Union Coverage by State, Percentage Point Difference, 2000-2014**



**Figure 6: Map of the Change in Labor Share by State, Percentage Point Difference, 2000-2014**



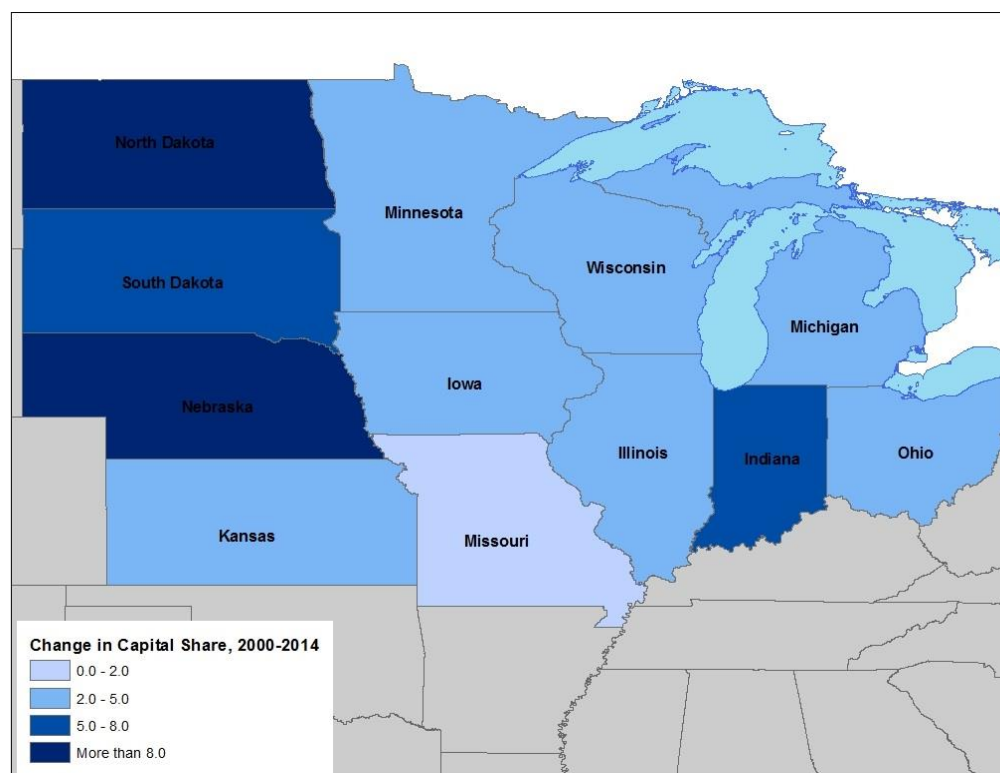
**Figure 7: Map of the Change in Capital Share by State, Percentage Point Difference, 2000-2014**

Figure 8 describes the association between union decline and the distribution of labor and capital by state from 1997 to 2014. The state with the most significant relationship was Wisconsin, where unionization was highly correlated with both the labor share of the economy (+0.83) and the capital share of the economy (-0.84) between 1997 and 2014. The state with the weakest relationship was Missouri (with coefficients of +0.29 for labor and -0.39 for capital).

Between 1997 and 2014, the state-level union coverage rate fell by 4.7 percentage points in the Midwest on average (Figure 8). This decrease is greater than the 3.3 percentage-point drop nationally. The largest union declines occurred in Michigan (-8.8 percentage points) and Wisconsin (-7.5 percentage points), where “right-to-work” laws were passed. The smallest union decline occurred in Kansas (-1.2 percentage points), but union density in Kansas was already relatively low in 1997.

The important discovery in Figure 8 is that as union coverage declined, labor’s share of the state economy declined, and capital’s share of the economy increased across the board— with only one exception.<sup>1</sup> There was a near one-for-one transfer of economic income from labor to capital in these Midwestern states. In Illinois, for example, labor’s share of the economy decreased by about 1 percentage point from 1997 to 2014, while capital’s share of the economy increased by about 1 percentage point.<sup>2</sup> The highest redistributions of income from labor to capital occurred in North Dakota, where an energy boom led to significant capital investment from companies and enormous profits, and in Indiana, where a “right-to-work” law was adopted.

<sup>1</sup> The only exception is Missouri, where the labor share of the economy and the capital share of the economy both marginally increased. This can occur if the “taxes less subsidies” share falls, meaning that government comprised a smaller share (about -0.3 percentage points) of the overall Missouri economy in 2014 than in 1997.

<sup>2</sup> In Illinois, the labor share fell by 1.2 percentage points and the capital share rose by 0.9 percentage point. Again, the residual of 0.3 percentage point was captured by “taxes less subsidies,” meaning that government comprised a slightly larger share of the overall Illinois economy in 2014 than in 1997.

Results from a regression analysis which controls for regional trends are reported in the final column of Figure 8. The model estimates “how much” the decline of unionization in each state is associated with labor’s share of each state’s economy. In Illinois, Michigan, Minnesota, and Wisconsin, over 75 percent of the drop in labor’s share of the economy can be attributed to union decline. On average, union decline accounts for an estimated 42 percent of the overall drop in labor’s share of the economic value across the Midwest.

**Figure 8: Correlations between Labor/Capital Shares and Unionization in Midwest States, 1997-2014**

1997-2014 State	Correlation Between the Union Coverage Rate and:		Percentage-Point Change from 1997 to 2014:			Impact Due to Union Decline*
	Labor Share of Economy	Capital Share of Economy	Union Coverage	Labor Share	Capital Share	Labor Share
Illinois	0.701	-0.601	-3.9%	-1.2%	+0.9%	90%
Indiana	0.834	-0.789	-4.0%	-6.0%	+6.7%	19%
Iowa	0.790	-0.800	-3.1%	-1.6%	+1.8%	55%
Kansas	0.745	-0.729	-1.2%	-2.1%	+2.7%	16%
Michigan	0.748	-0.612	-8.8%	-3.3%	+2.4%	78%
Minnesota	0.794	-0.796	-6.0%	-2.1%	+2.1%	82%
Missouri	0.286	-0.395	-6.1%	+0.2%	+0.1%	N/A
Nebraska	0.490	-0.509	-3.3%	-5.3%	+6.7%	18%
North Dakota	0.409	-0.427	-3.2%	-6.6%	+8.9%	14%
Ohio	0.760	-0.692	-6.4%	-3.4%	+3.2%	55%
South Dakota	0.559	-0.631	-2.5%	-3.6%	+5.6%	20%
Wisconsin	0.833	-0.845	-7.5%	-2.9%	+3.0%	75%
<b>Average</b>	<b>0.662</b>	<b>-0.652</b>	<b>-4.7%</b>	<b>-3.2%</b>	<b>+3.7%</b>	<b>42%</b>
<b>United States</b>	<b>0.849</b>	<b>-0.860</b>	<b>-3.3%</b>	<b>-1.6%</b>	<b>+1.7%</b>	<b>N/A</b>

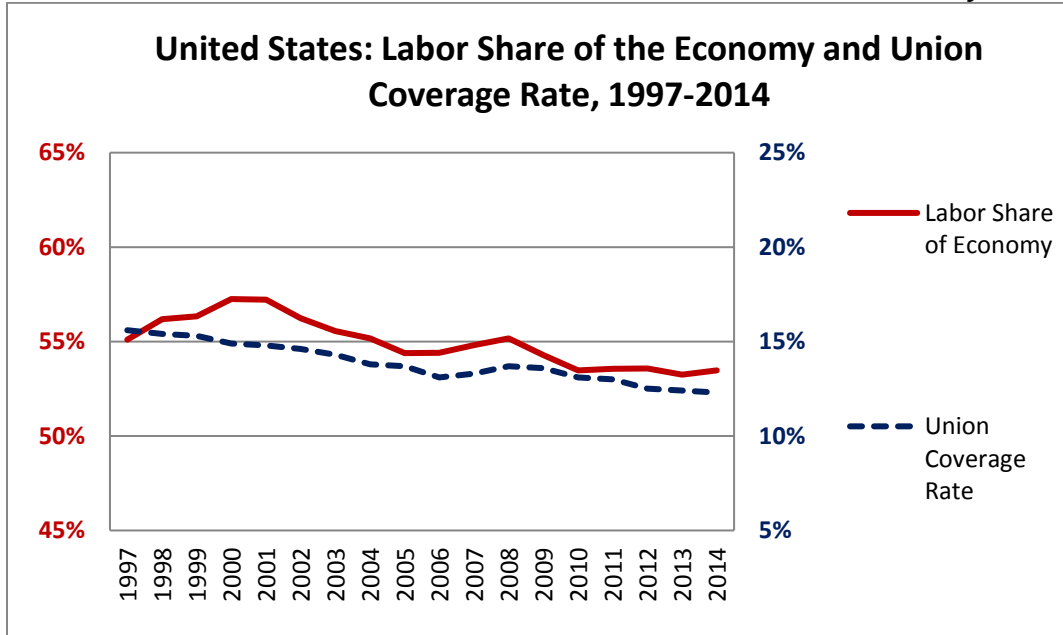
\*Estimates are the result of an OLS regression analysis controlling for regional trends. For regression results in .txt format, contact author Frank Manzo IV at fmanzo@illinoisepi.org.

The consistent takeaway from this regional analysis is that unions help workers take home a larger share of the economic value they create. As unionization has declined across the Midwest, economic wealth has been redistributed from labor to capital. RTW laws, which have accelerated the decline in union coverage, have played a significant role in the redistribution from labor to capital. Overall, two-fifths of the drop in labor’s share of the Midwest economy can be attributed to the overall decline of unionization in the region.

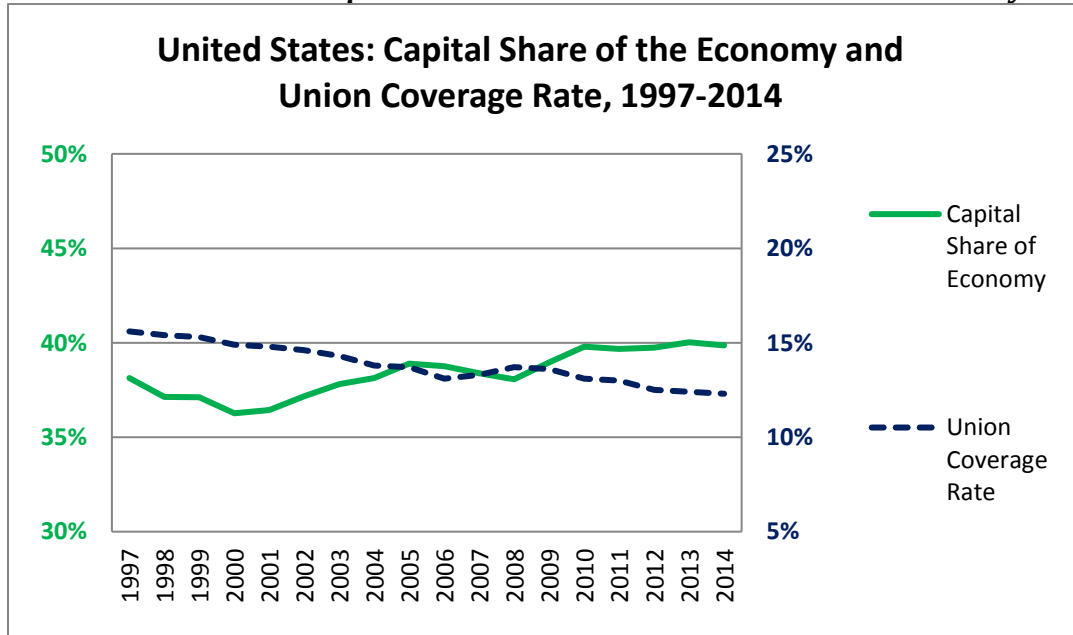
## STATE PROFILES OF UNION DECLINE AND ECONOMIC REDISTRIBUTION

Figures 9 and 10 depict the change in labor's share of the U.S. economy and capital's share of the U.S. economy compared to the change in the U.S. union coverage rate since 1997. Despite briefly rising from 1997 to 2000, labor's piece of the economy has generally fallen in tandem with the decline in unionization over time (Figure 9). In fact, the national correlation between union decline and labor's shrinking share of the economy is a strong +0.85. Similarly, as unionization has gradually declined, capital has increasingly captured a larger share of the economy, corroborated by a strong correlation of -0.86.

**Figure 9: Correlations between Labor Share and Unionization in the United States by Year**



**Figure 10: Correlations between Capital Share and Unionization in the United States by Year**

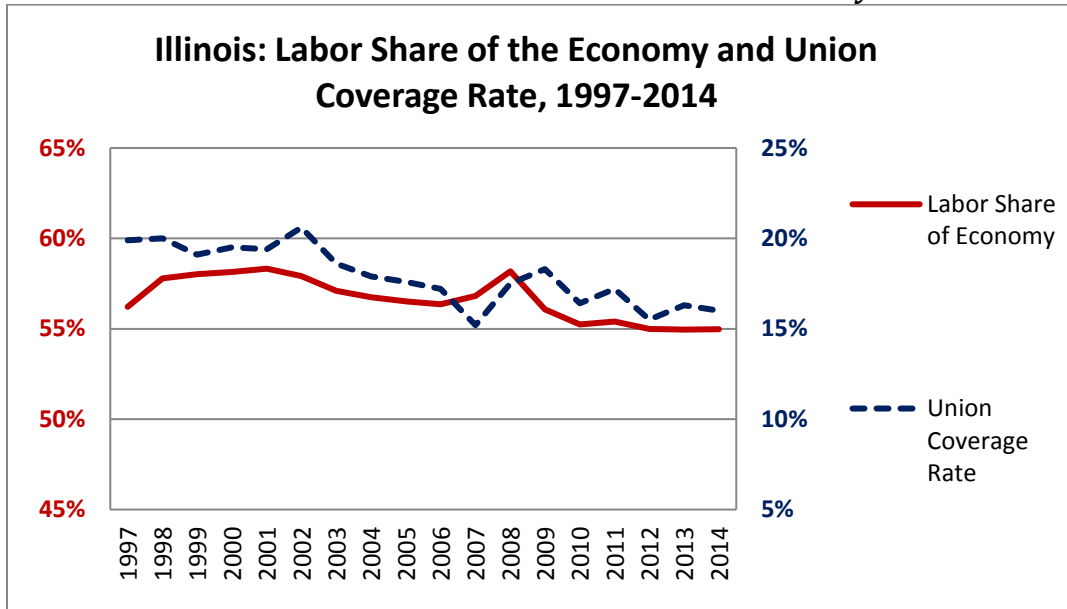


## Illinois

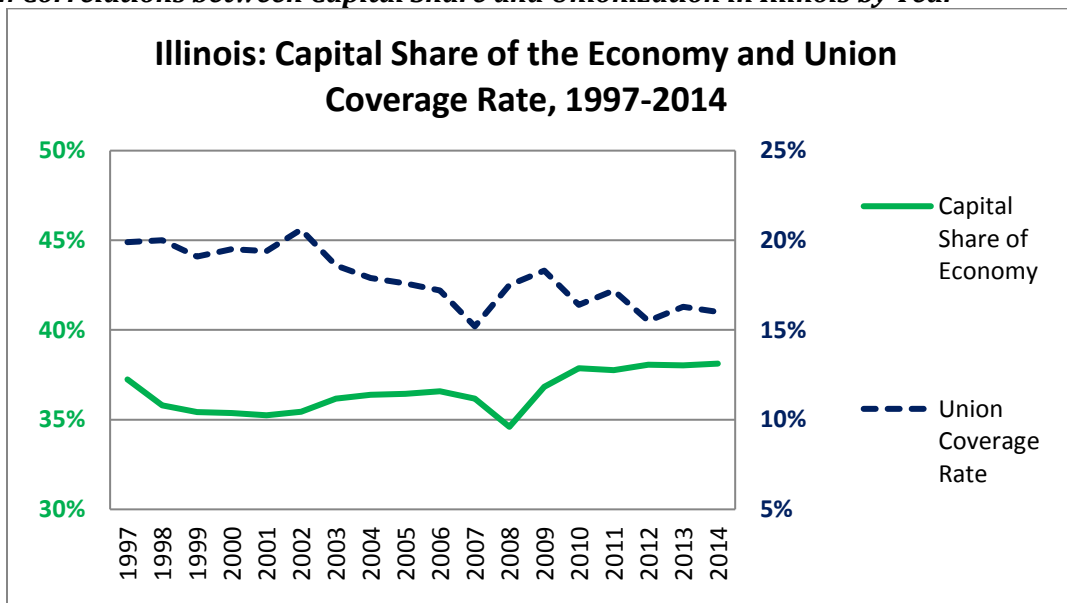
In Illinois between 1997 and 2014, the union coverage rate declined by **3.9 percentage points**, from 19.9 percent to 16.0 percent (Figures 11 and 12). The union coverage rate peaked at 20.6 percent in 2002 and was at its lowest point, 15.2 percent, in 2007. After the Great Recession, unionization briefly increased in Illinois before once again experiencing decline.

Between 1997 and 2014, labor's share of the Illinois economy declined by **1.2 percentage point**, from 56.2 percent to 55.0 percent, and capital's share of the Illinois economy grew by **0.9 percentage point**, from 37.2 percent to 38.1 percent (Figures 11 and 12). Overall, union decline in Illinois explains approximately **90 percent** of the drop in labor's share of the state's economy. Unions have played a critical role in raising wages and instituting norms for middle-class pay in Illinois. As a result, the decline in union coverage has reduced the share of the economy captured by both union and nonunion workers in the state.

**Figure 11: Correlations between Labor Share and Unionization in Illinois by Year**



**Figure 12: Correlations between Capital Share and Unionization in Illinois by Year**



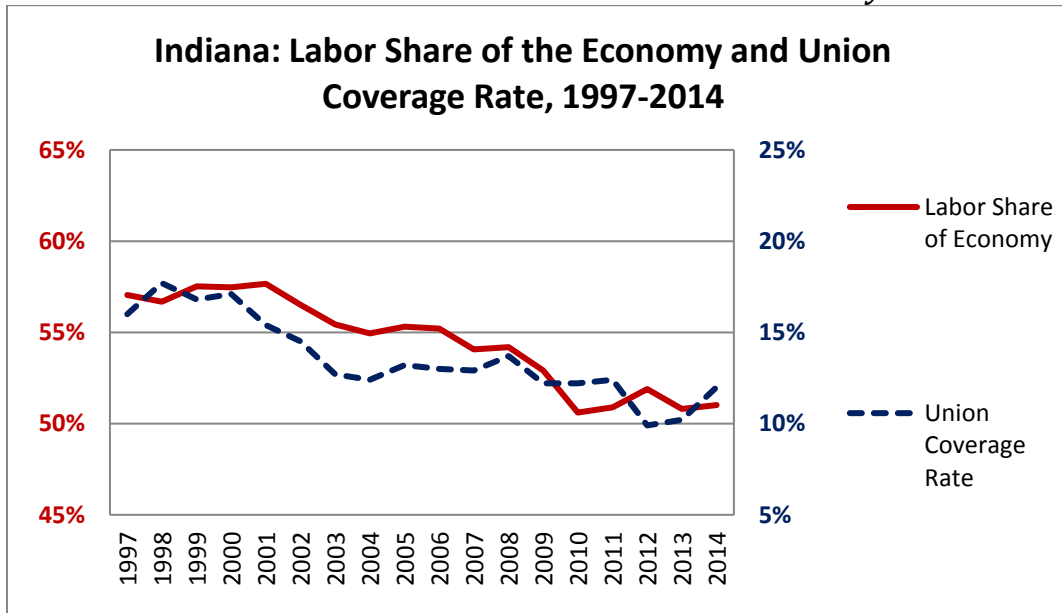


## Indiana

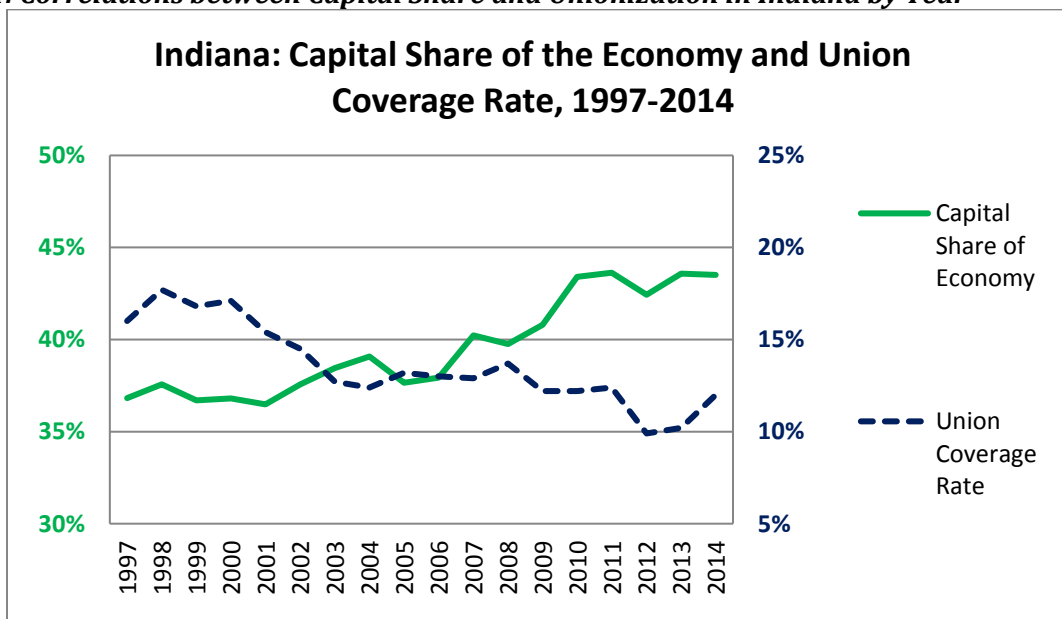
In Indiana between 1997 and 2014, the union coverage rate declined by **4.0 percentage points**, from 16.0 percent to 12.0 percent (Figures 13 and 14). The union coverage rate peaked at 17.7 percent in 1998 and was at its lowest point, 9.9 percent, in 2012.

Between 1997 and 2014, labor's share of the Indiana economy declined by **6.0 percentage points**, from 57.0 percent to 51.0 percent, and capital's share of the Indiana economy grew by **6.7 percentage points**, from 36.8 percent to 43.5 percent (Figures 13 and 14). Overall, union decline in Indiana explains approximately **19 percent** of the drop in labor's share of the state's economy. As the state has enacted a "right-to-work" law and other business-friendly policies, owners, corporations, and machinery have increasingly captured a larger share of the state's economy.

**Figure 13: Correlations between Labor Share and Unionization in Indiana by Year**



**Figure 14: Correlations between Capital Share and Unionization in Indiana by Year**

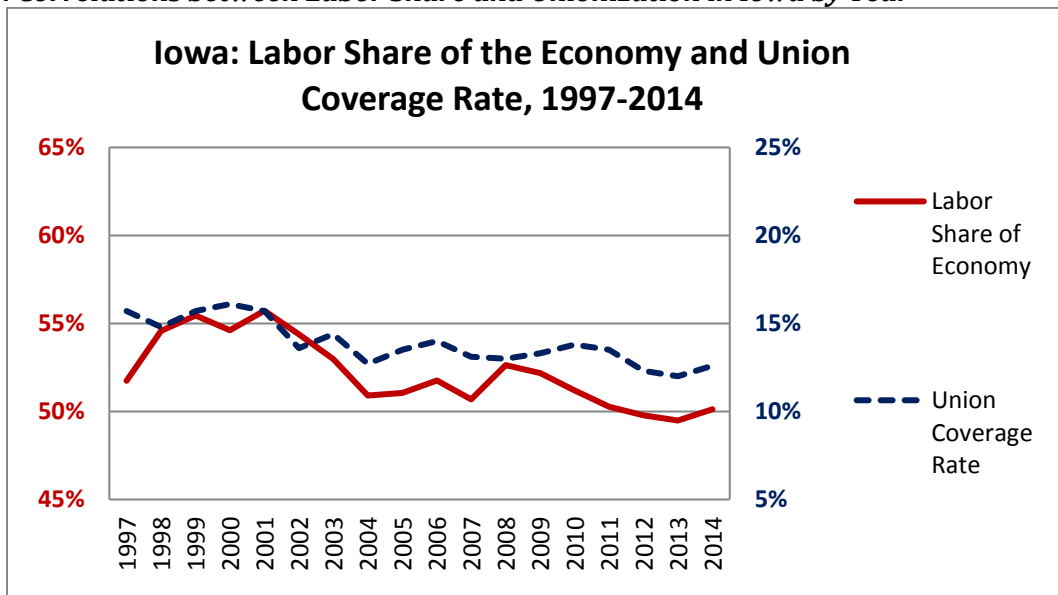


## Iowa

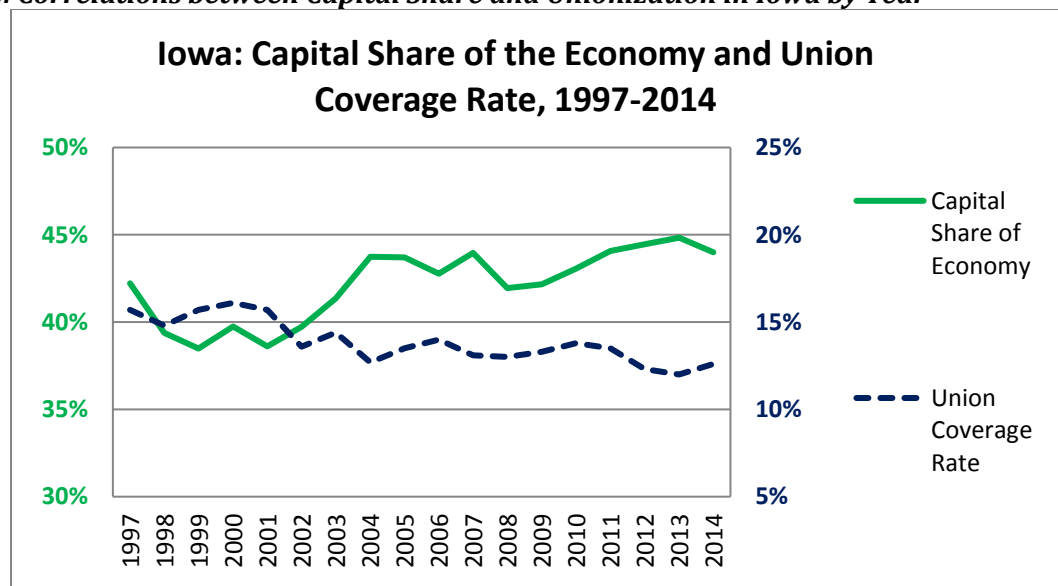
In Iowa between 1997 and 2014, the union coverage rate declined by **3.1 percentage points**, from 15.7 percent to 12.6 percent (Figures 15 and 16). The union coverage rate peaked at 16.1 percent in 2000 and was at its lowest point, 12.0 percent, in 2013.

Between 1997 and 2014, labor's share of the Iowa economy declined by **1.6 percentage point**, from 51.7 percent to 50.2 percent, and capital's share of the Iowa economy grew by **1.8 percentage point**, from 42.2 percent to 44.0 percent (Figures 15 and 16). Overall, union decline in Iowa explains approximately **55 percent** of the drop in labor's share of the state's economy. Iowa has traditionally had one of the highest unionization rates among "right-to-work" states. Recently, however, the labor-capital divide in Iowa has expanded considerably, joining their "right-to-work" counterparts with a very high capital share. In addition, a very restrictive public sector collective bargaining law passed in February 2017 will likely further increase the labor-capital disparity (Petroski & Pfannenstiel, 2017).

**Figure 15: Correlations between Labor Share and Unionization in Iowa by Year**



**Figure 16: Correlations between Capital Share and Unionization in Iowa by Year**

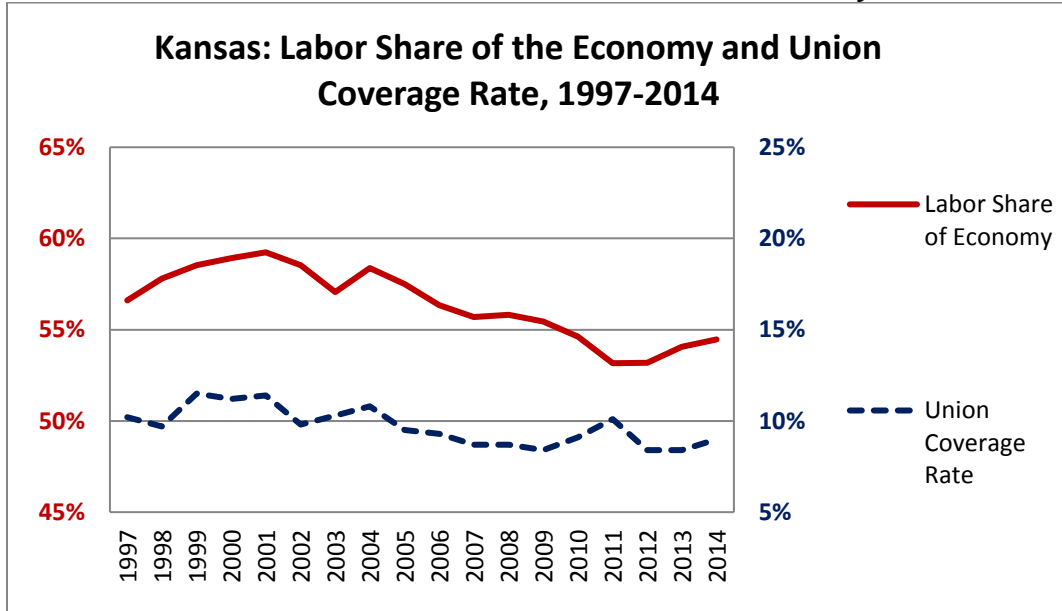


## Kansas

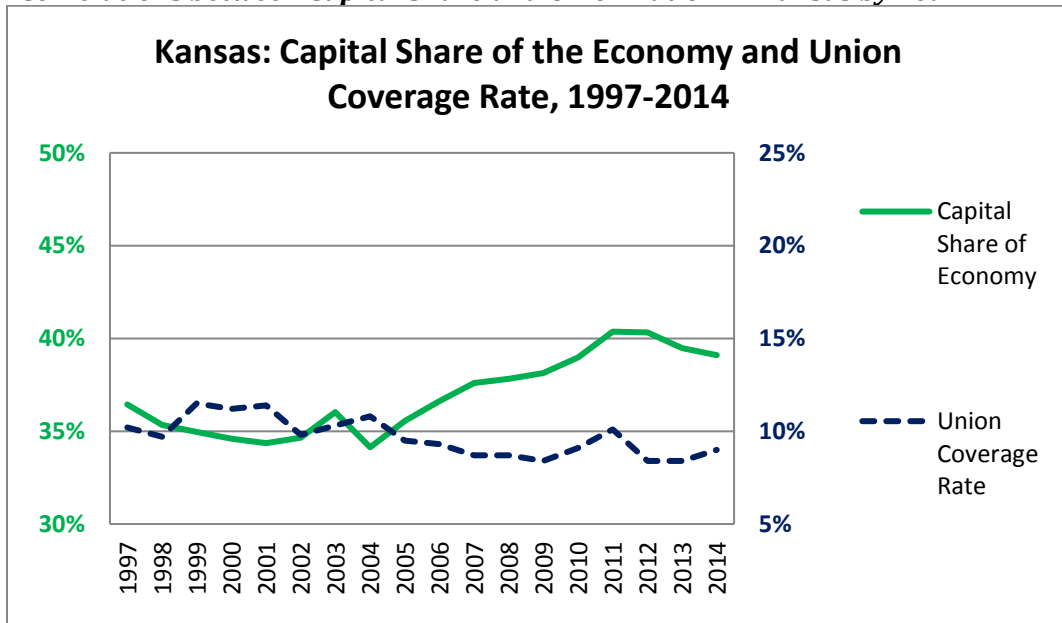
In Kansas between 1997 and 2014, the union coverage rate declined by **1.2 percentage point**, from 10.2 percent to 9.0 percent (Figures 17 and 18). The union coverage rate peaked at 11.5 percent in 1999 and was at its lowest point, 8.4 percent, in 2012 and 2013.

Between 1997 and 2014, labor's share of the Kansas economy declined by **2.1 percentage points**, from 56.6 percent to 54.5 percent, and capital's share of the Kansas economy grew by **2.7 percentage points**, from 36.4 percent to 39.1 percent (Figures 17 and 18). Overall, union decline in Kansas explains approximately **16 percent** of the drop in labor's share of the state's economy.

**Figure 17: Correlations between Labor Share and Unionization in Kansas by Year**



**Figure 18: Correlations between Capital Share and Unionization in Kansas by Year**

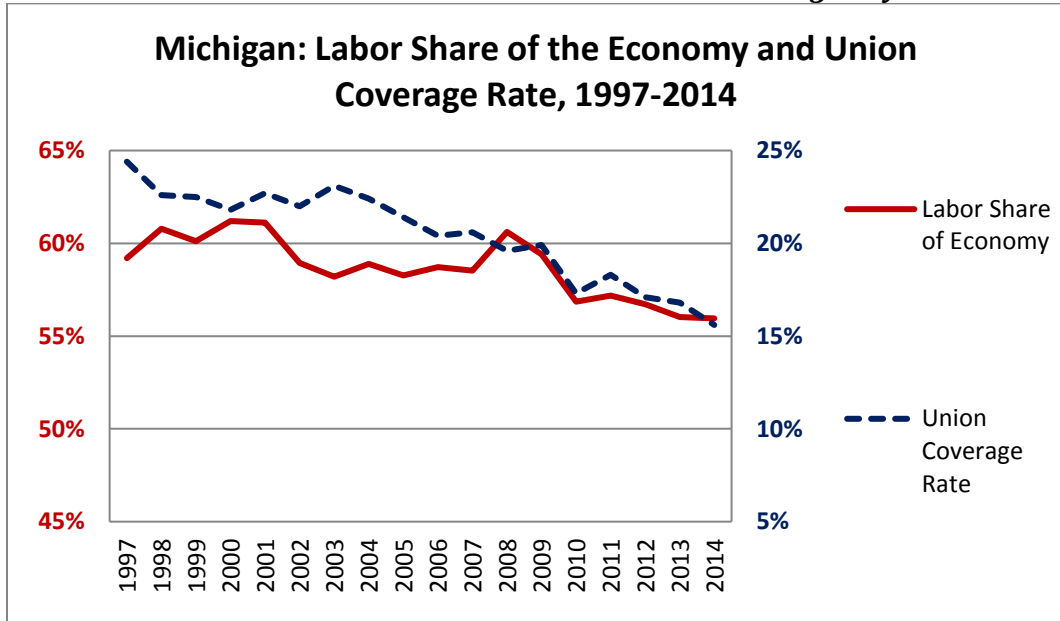


## Michigan

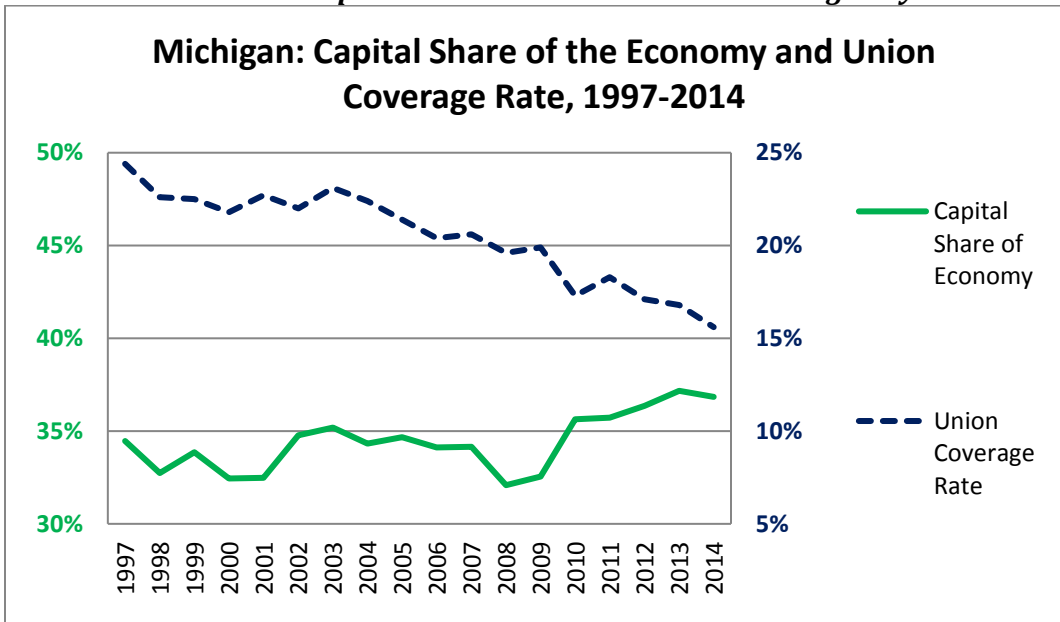
In Michigan between 1997 and 2014, the union coverage rate declined by **8.8 percentage points**, from 24.4 percent to 15.6 percent (Figures 19 and 20). The union coverage rate peaked at 24.4 percent in 1997 and was at its lowest point in 2014.

Between 1997 and 2014, labor's share of the Michigan economy declined by **3.2 percentage points**, from 59.2 percent to 56.0 percent, and capital's share of the Michigan economy grew by **2.4 percentage points**, from 34.5 percent to 36.9 percent (Figures 19 and 20). Overall, union decline in Michigan explains approximately **78 percent** of the drop in labor's share of the state's economy. Michigan's enactment of "right-to-work" in 2013 is likely to accelerate the trend of redistributing income from labor to capital.

**Figure 19: Correlations between Labor Share and Unionization in Michigan by Year**



**Figure 20: Correlations between Capital Share and Unionization in Michigan by Year**

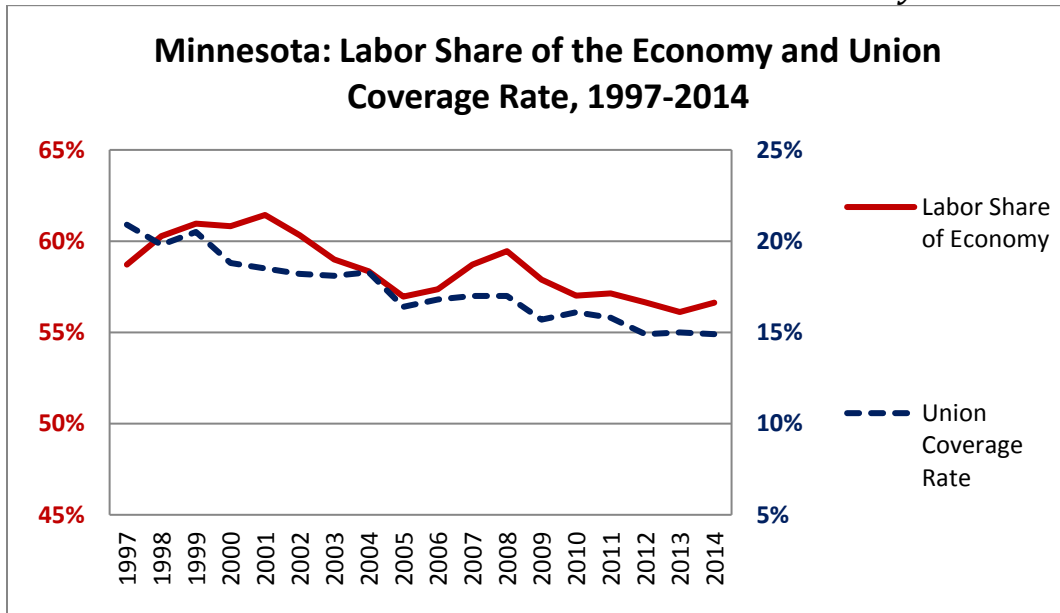


## Minnesota

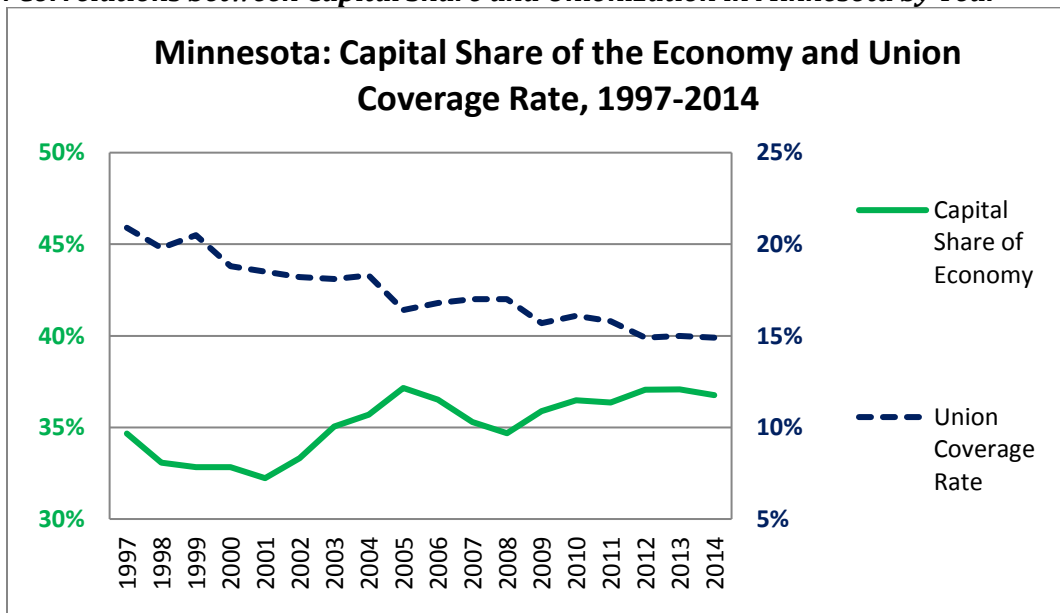
In Minnesota between 1997 and 2014, the union coverage rate declined by **6.0 percentage points**, from 20.9 percent to 14.9 percent (Figures 21 and 22). The union coverage rate peaked at 20.9 percent in 1997 and was at its lowest point in 2014.

Between 1997 and 2014, labor's share of the Minnesota economy declined by **2.1 percentage points**, from 58.7 percent to 56.6 percent, and capital's share of the Minnesota economy grew by **2.1 percentage points**, from 34.7 percent to 36.8 percent (Figures 21 and 22). Overall, union decline in Minnesota explains approximately **82 percent** of the drop in labor's share of the state's economy. Unions have played a critical role in raising wages and instituting norms for middle-class pay in Minnesota. As a result, the decline in union coverage has reduced the share of the economy captured by both union and nonunion workers in the state.

**Figure 21: Correlations between Labor Share and Unionization in Minnesota by Year**



**Figure 22: Correlations between Capital Share and Unionization in Minnesota by Year**

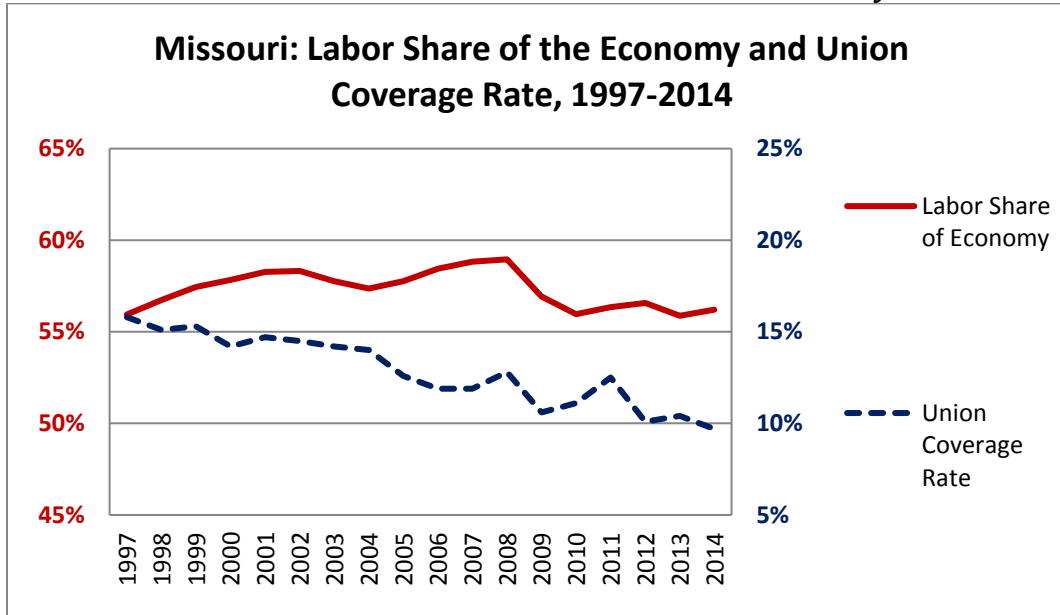


## Missouri

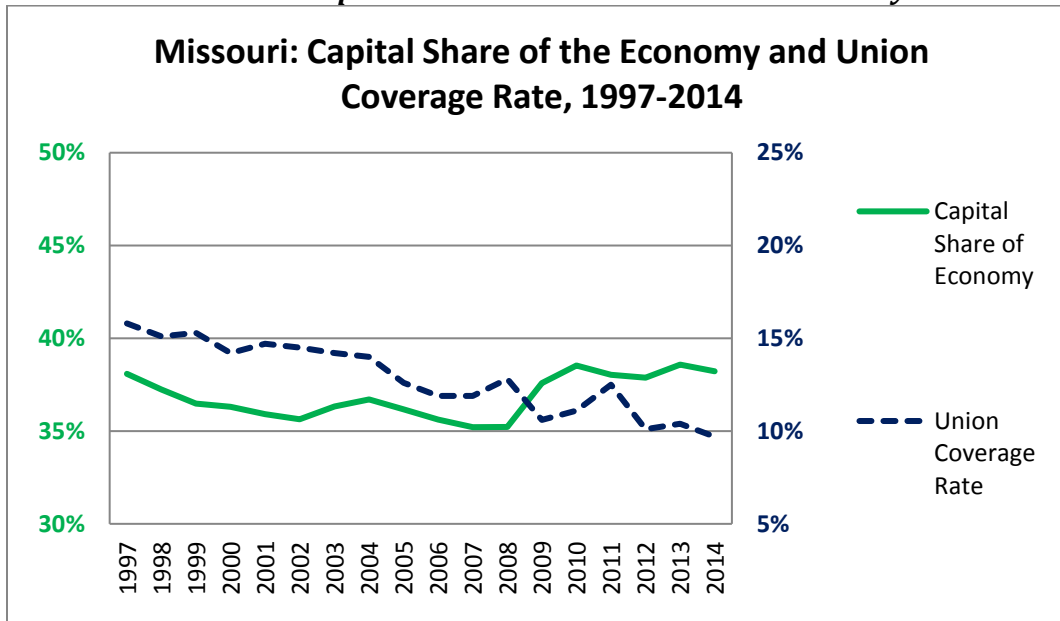
In Missouri between 1997 and 2014, the union coverage rate declined by **6.1 percentage points**, from 15.8 percent to 9.7 percent (Figures 23 and 24). The union coverage rate peaked at 15.8 percent in 1997 and was at its lowest point in 2014.

Between 1997 and 2014, labor's share of the Missouri economy grew insignificantly by **0.2 percentage point**, from 56.0 percent to 56.2 percent, and capital's share of the Missouri economy grew insignificantly by **0.1 percentage points**, from 38.1 percent to 38.2 percent (Figures 23 and 24). Missouri is the only outlier in the Midwest where labor's share of the economy marginally increased. Unfortunately, a new 2017 "right-to-work" law in Missouri will likely reverse this phenomenon of Missouri bucking the regional trend.

**Figure 23: Correlations between Labor Share and Unionization in Missouri by Year**



**Figure 24: Correlations between Capital Share and Unionization in Missouri by Year**



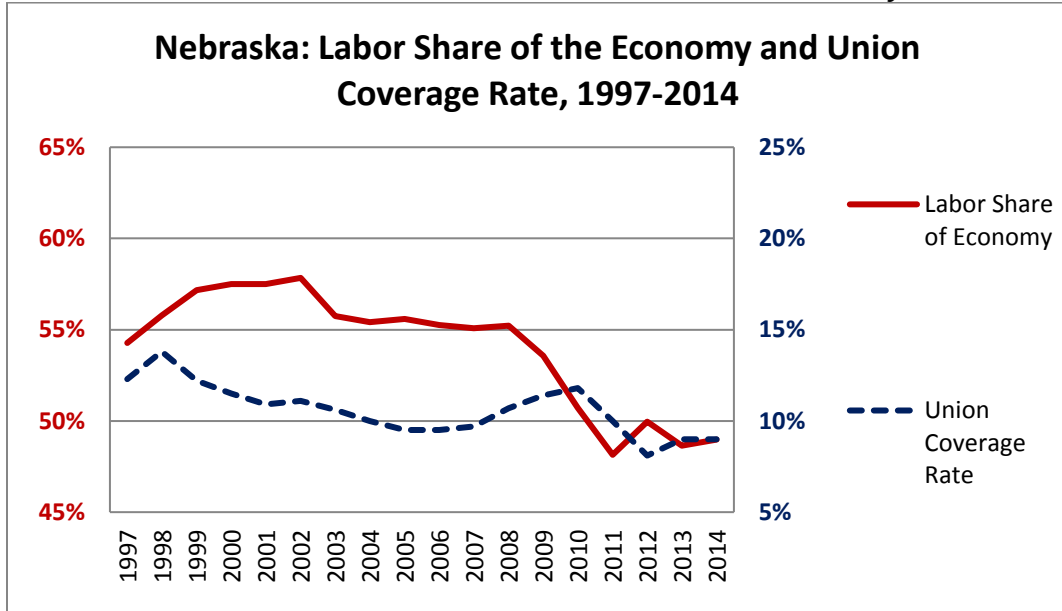


## Nebraska

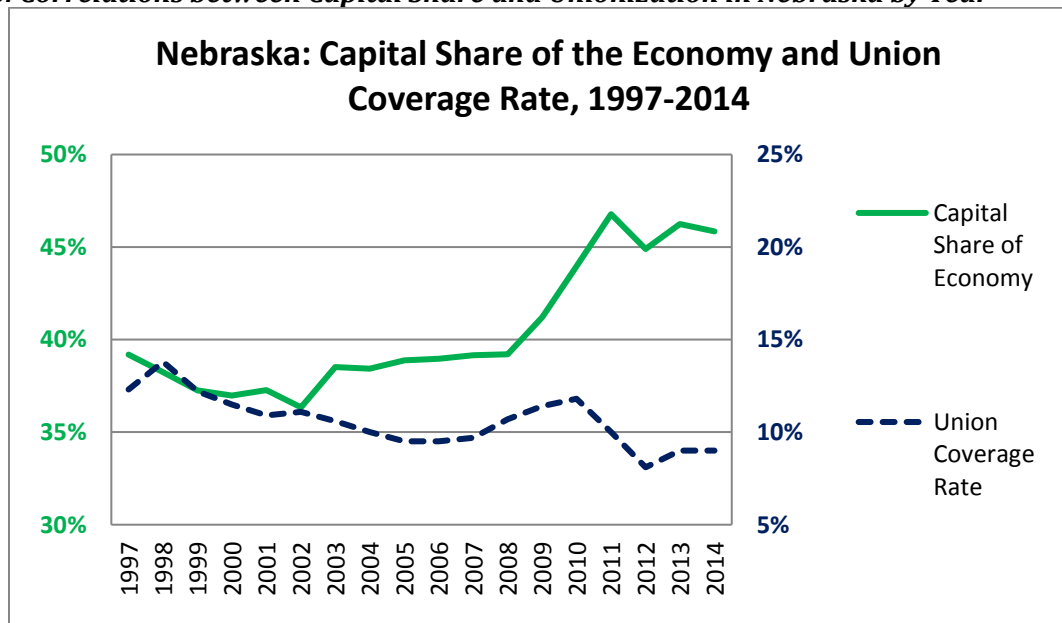
In Nebraska between 1997 and 2014, the union coverage rate declined by **3.3 percentage points**, from 12.3 percent to 10.0 percent (Figures 25 and 26). The union coverage rate peaked at 13.8 percent in 1998 and was at its lowest point, 8.1 percent, in 2012.

Between 1997 and 2014, labor's share of the Nebraska economy declined by **5.3 percentage points**, from 54.3 percent to 49.0 percent, and capital's share of the Nebraska economy grew by **6.7 percentage points**, from 39.2 percent to 45.9 percent (Figures 25 and 26). Overall, union decline in Nebraska explains approximately **18 percent** of the drop in labor's share of the state's economy.

*Figure 25: Correlations between Labor Share and Unionization in Nebraska by Year*



*Figure 26: Correlations between Capital Share and Unionization in Nebraska by Year*

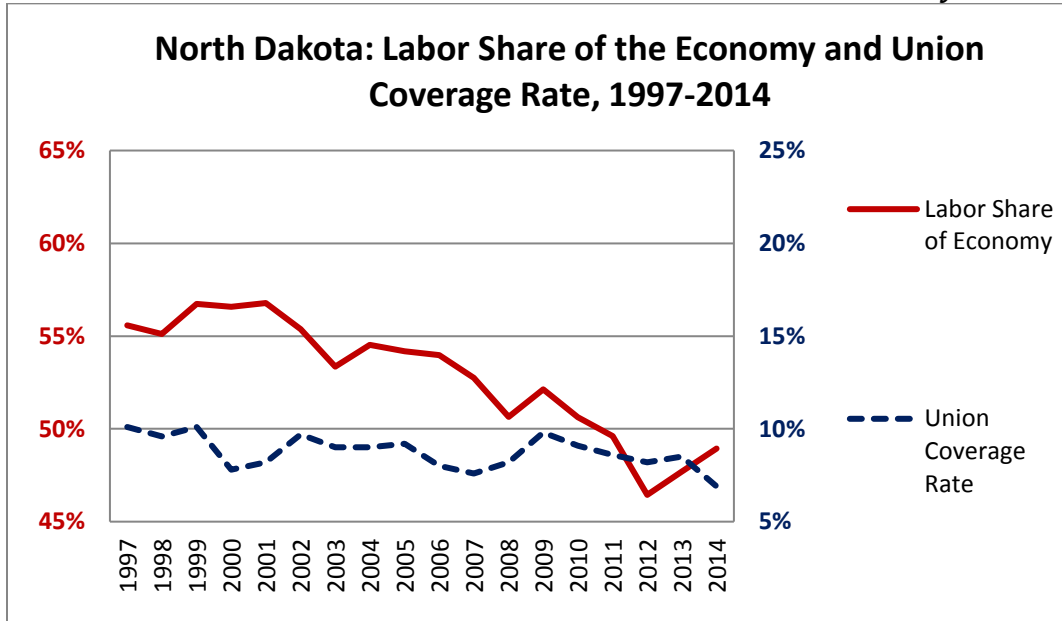


## North Dakota

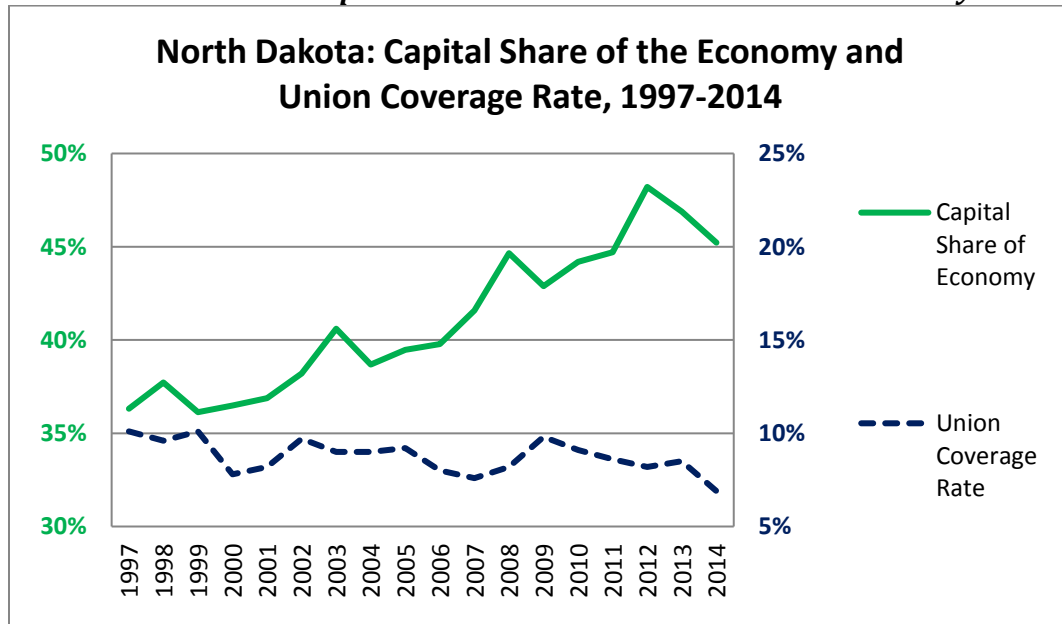
In North Dakota between 1997 and 2014, the union coverage rate declined by **3.2 percentage points**, from 10.1 percent to 6.9 percent (Figures 27 and 28). The union coverage rate peaked at 10.1 percent in 1999 and was at its lowest point in 2014.

Between 1997 and 2014, labor's share of the North Dakota economy declined by **6.6 percentage points**, from 55.6 percent to 48.9 percent, and capital's share of the North Dakota economy grew by **8.9 percentage points**, from 36.3 percent to 45.2 percent (Figures 27 and 28). Overall, union decline in North Dakota explains approximately **14 percent** of the drop in labor's share of the state's economy. The energy boom in North Dakota resulted in an economic boon to the state, but nearly all of the gains were captured by capital.

**Figure 27: Correlations between Labor Share and Unionization in North Dakota by Year**



**Figure 28: Correlations between Capital Share and Unionization in North Dakota by Year**

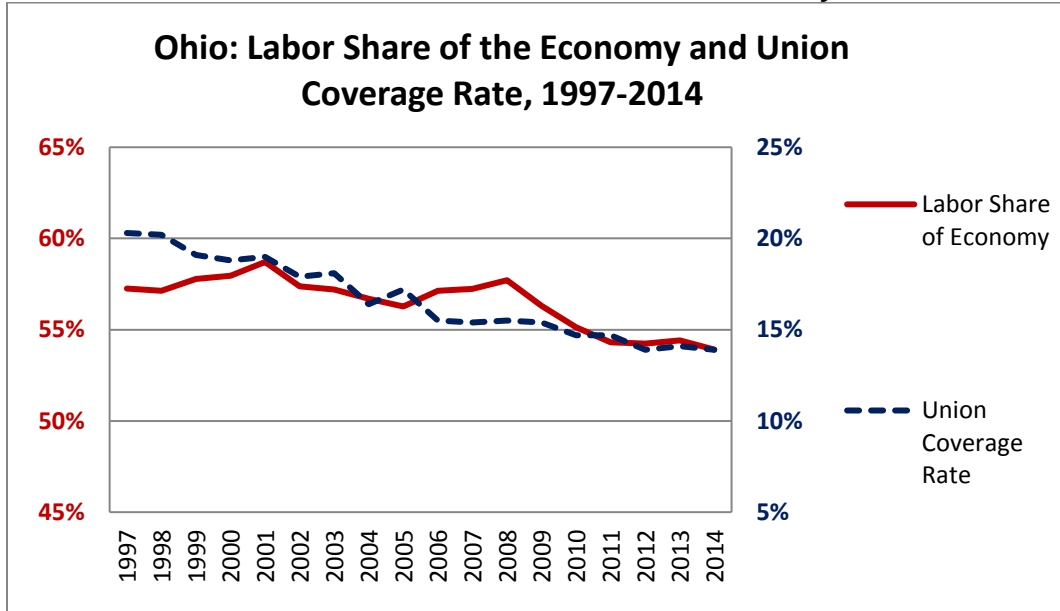


## Ohio

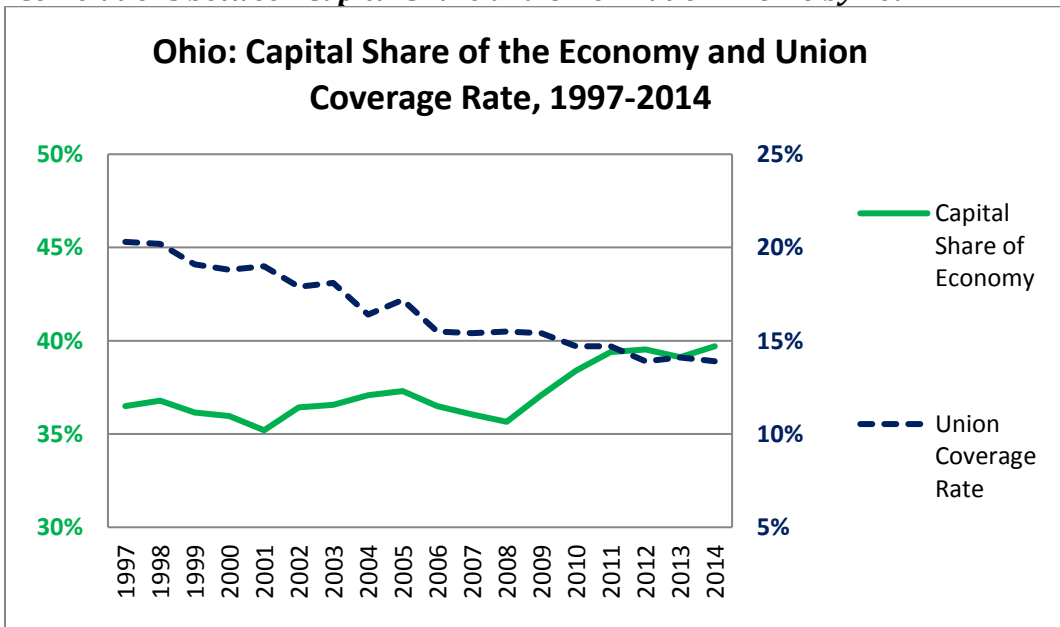
In Ohio between 1997 and 2014, the union coverage rate declined by **6.4 percentage points**, from 20.3 percent to 13.9 percent (Figures 29 and 30). The union coverage rate peaked at 20.3 percent in 1997 and was at its lowest point in 2014.

Between 1997 and 2014, labor's share of the Ohio economy declined by **3.4 percentage points**, from 57.3 percent to 53.9 percent, and capital's share of the Ohio economy grew by **3.2 percentage points**, from 36.5 percent to 39.7 percent (Figures 29 and 30). Overall, union decline in Ohio explains approximately **55 percent** of the drop in labor's share of the state's economy.

**Figure 29: Correlations between Labor Share and Unionization in Ohio by Year**



**Figure 30: Correlations between Capital Share and Unionization in Ohio by Year**

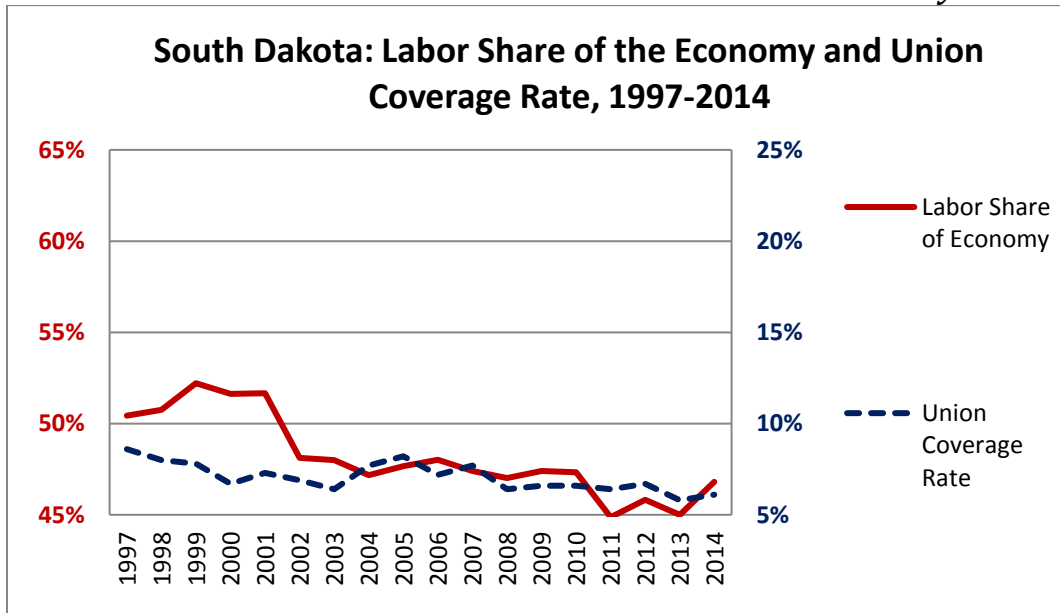


## South Dakota

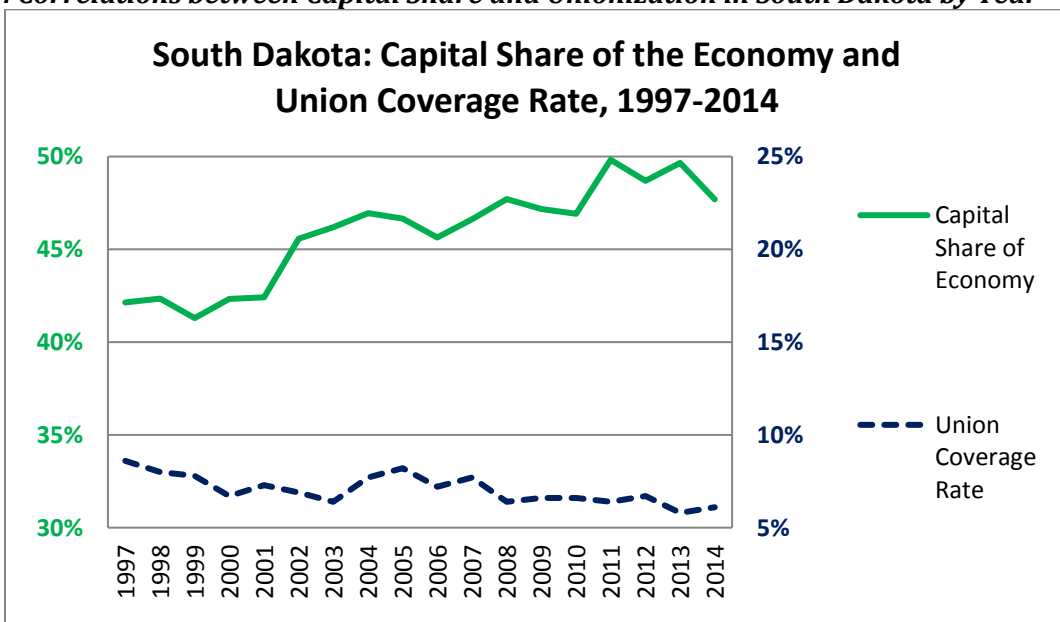
In South Dakota between 1997 and 2014, the union coverage rate declined by **2.5 percentage points**, from 8.6 percent to 6.1 percent (Figures 31 and 32). The union coverage rate peaked at just 8.0 percent in 1997 and was at its lowest point, 5.8 percent, in 2013.

Between 1997 and 2014, labor's share of the South Dakota economy declined by **3.6 percentage points**, from 50.4 percent to 46.8 percent, and capital's share of the South Dakota economy grew by **5.6 percentage points**, from 42.1 percent to 47.7 percent (Figures 31 and 32). Overall, union decline in South Dakota explains approximately **20 percent** of the drop in labor's share of the state's economy. South Dakota is the only state in the Midwest where capital's share of the economy exceeds labor's share. In 2011, capital comprised 49.8 percent of the state economy while labor accounted for just 44.9 percent of the state economy.

**Figure 31: Correlations between Labor Share and Unionization in South Dakota by Year**



**Figure 32: Correlations between Capital Share and Unionization in South Dakota by Year**

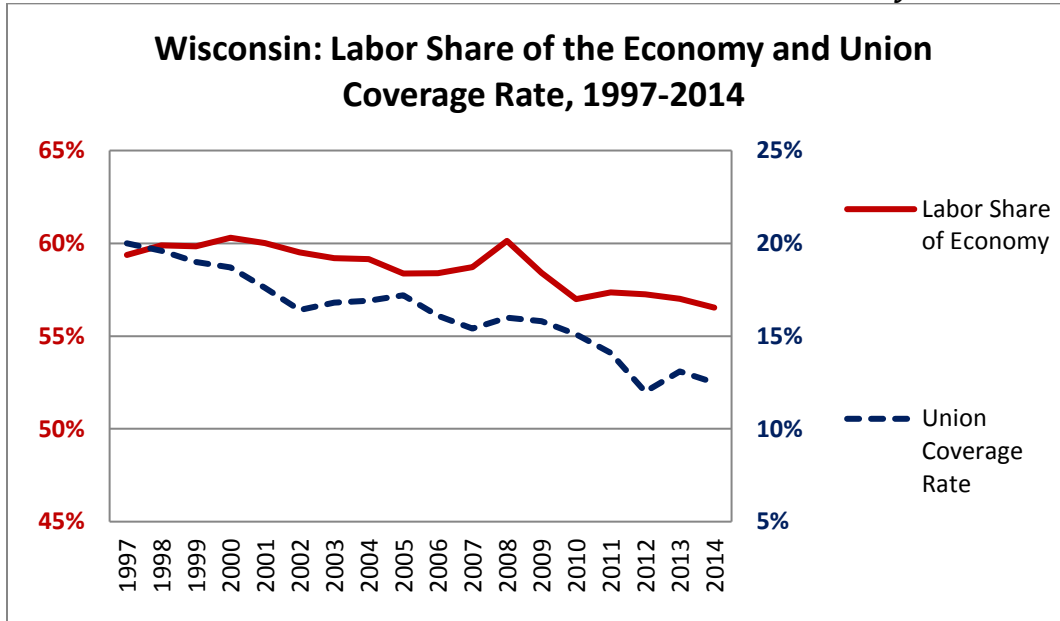


## Wisconsin

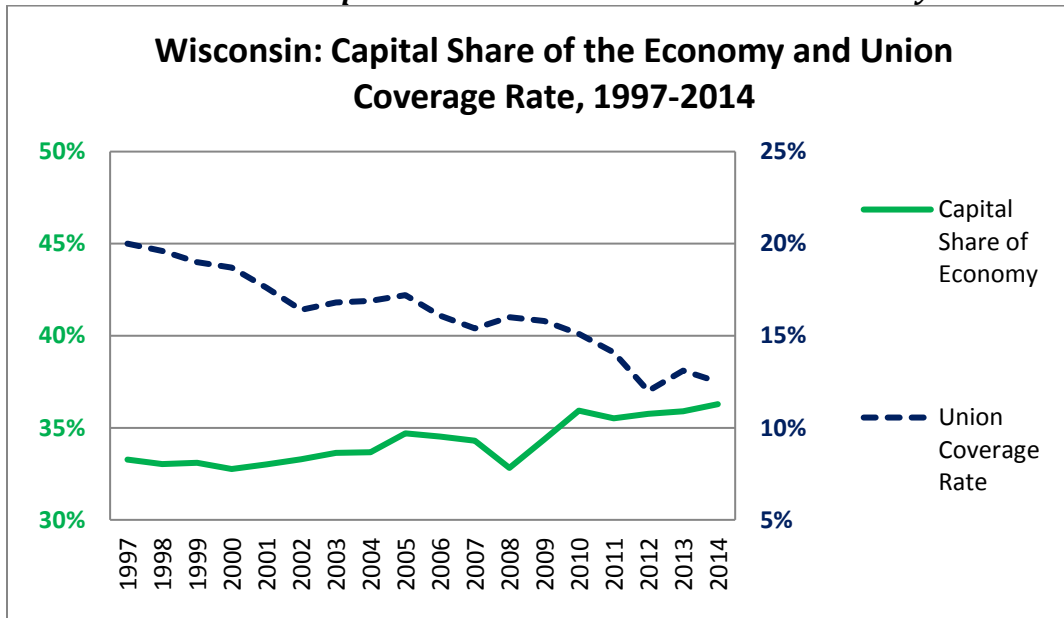
In Wisconsin between 1997 and 2014, the union coverage rate declined by **7.5 percentage points**, from 20.0 percent to 12.5 percent (Figures 33 and 34). The union coverage rate peaked at 20.0 percent in 1997 and was at its lowest point, 12.0 percent, in 2012.

Between 1997 and 2014, labor's share of the Wisconsin economy declined by **2.9 percentage points**, from 59.4 percent to 56.5 percent, and capital's share of the Wisconsin economy grew by **3.0 percentage points**, from 33.3 percent to 36.3 percent (Figures 33 and 34). Overall, union decline in Wisconsin explains approximately **75 percent** of the drop in labor's share of the state's economy. Wisconsin's enactment of "right-to-work" in 2015 is likely to accelerate the trend of redistributing income from labor to capital.

**Figure 33: Correlations between Labor Share and Unionization in Wisconsin by Year**



**Figure 34: Correlations between Capital Share and Unionization in Wisconsin by Year**



## CONCLUSIONS

Inequality has risen to historically high levels in the United States. While there are many causes, the most important labor market change is the long-term decline in labor union membership. Unions raise wages, particularly for lower-income and middle-class workers. Union decline explains between one-fifth and one-third of the increase in inequality in the United States.

Union decline lowers labor's share of the state economies and raises capital's share of the economy:

- In the Midwest, the correlation between the union coverage rate and labor's share of the economy is +0.71 and the correlation between the union coverage rate and capital's share of the economy is -0.70.
- The state with the most significant relationship is Wisconsin, where unionization was highly correlated with both labor's share of the economy (+0.83) and capital's share of the economy (-0.84).
- Recently, union coverage rate in the Midwest has fallen by more than the national trend. The largest union declines occurred in Michigan and Wisconsin, where "right-to-work" laws have been passed.

Union decline accounts for approximately two-fifths (42 percent) of the overall drop in labor's share of economic output across the Midwest from 1997 to 2014 (Figure 35).

**Figure 35: Summary of Change in Labor Share Due to Union Decline in Midwest States, 1997-2014**

State	Change in Labor's Share of the Economy	Estimated Percent of Change Associated with Union Decline
North Dakota	-6.6%	14%
Indiana	-6.0%	19%
Nebraska	-5.3%	18%
South Dakota	-3.6%	20%
Ohio	-3.4%	55%
Michigan	-3.3%	78%
Wisconsin	-2.9%	75%
Kansas	-2.1%	16%
Minnesota	-2.1%	82%
Iowa	-1.6%	55%
Illinois	-1.2%	90%
Missouri	+0.2%	N/A
<b>Average</b>	<b>-3.2%</b>	<b>42%</b>

Unions help workers take home a larger share of the economic value they create. As unionization has declined across the Midwest, economic output has been redistributed from labor to capital.

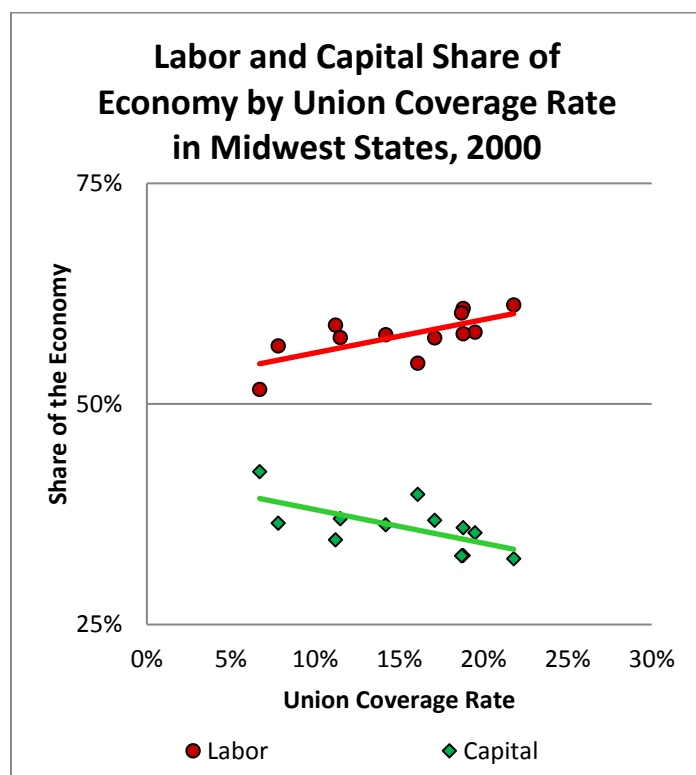
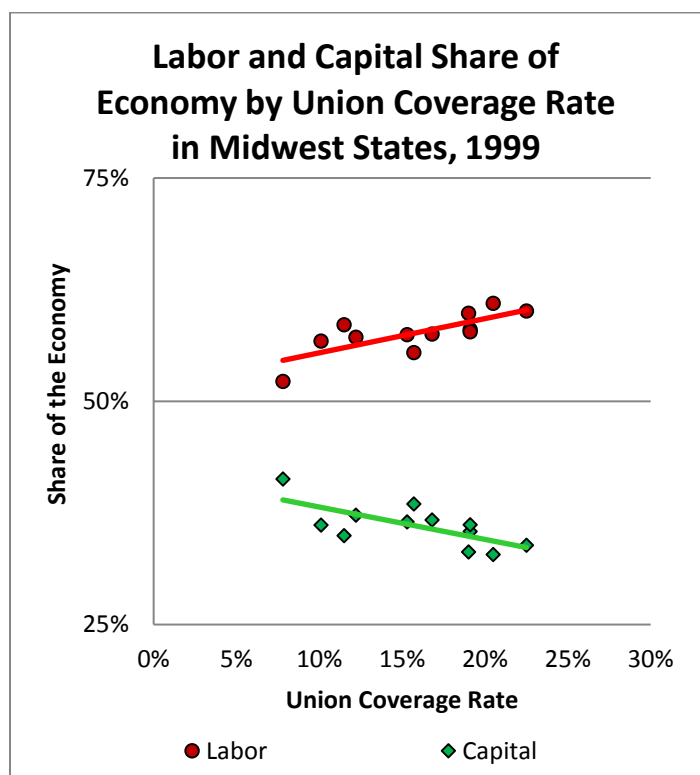
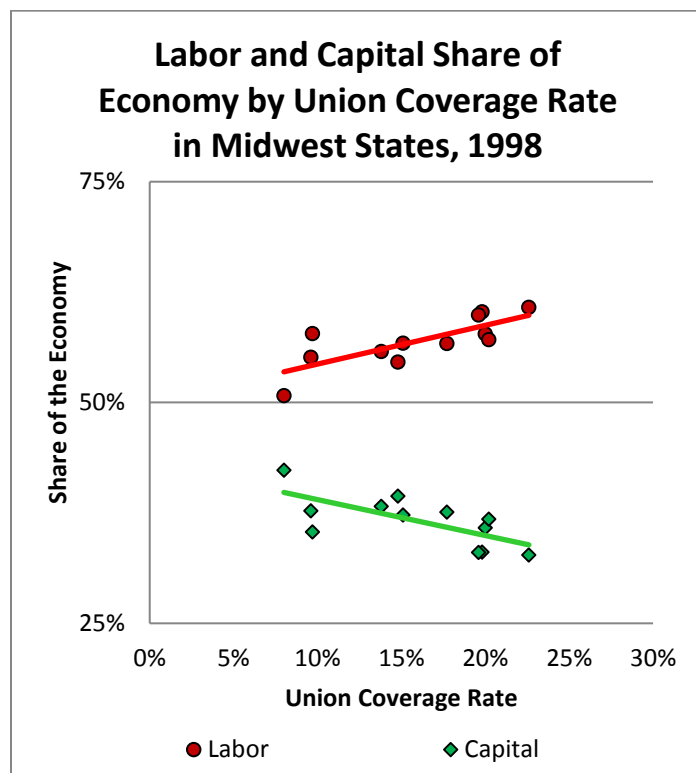
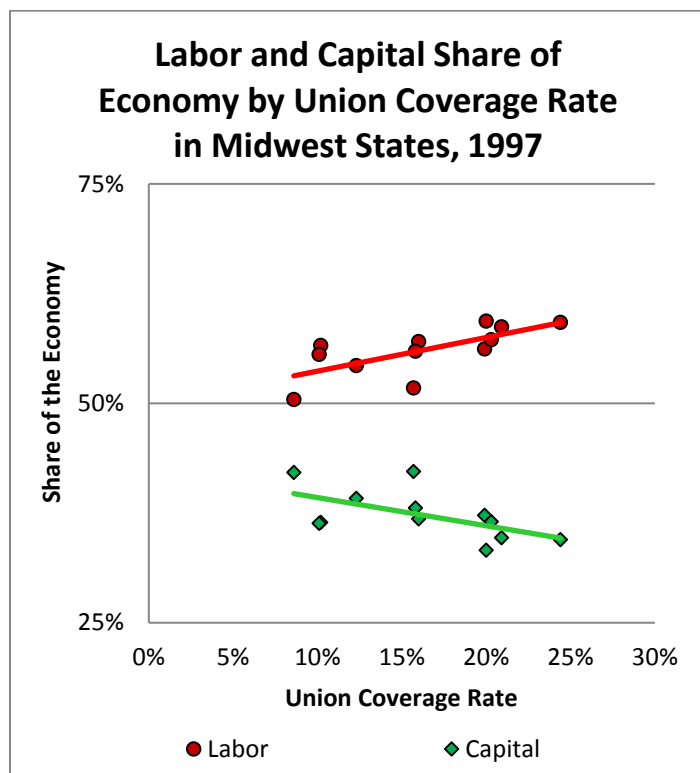


## SOURCES

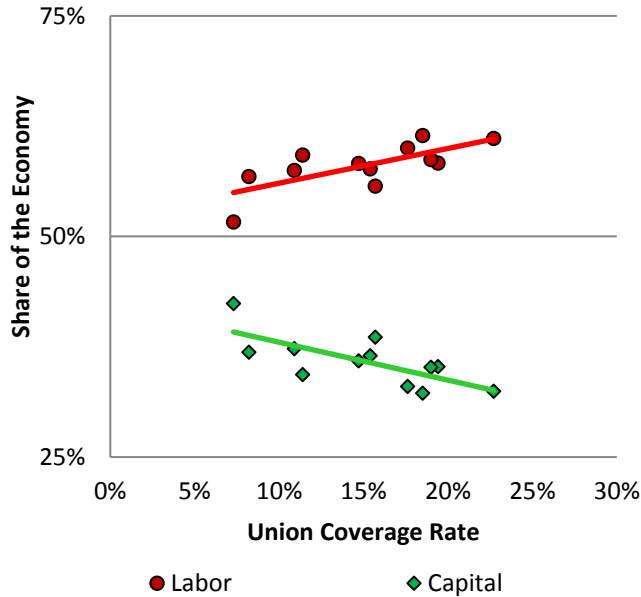
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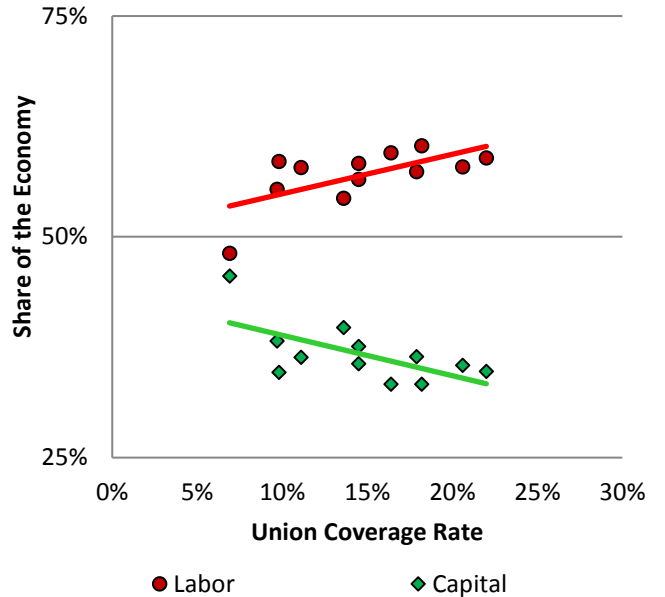
## APPENDIX



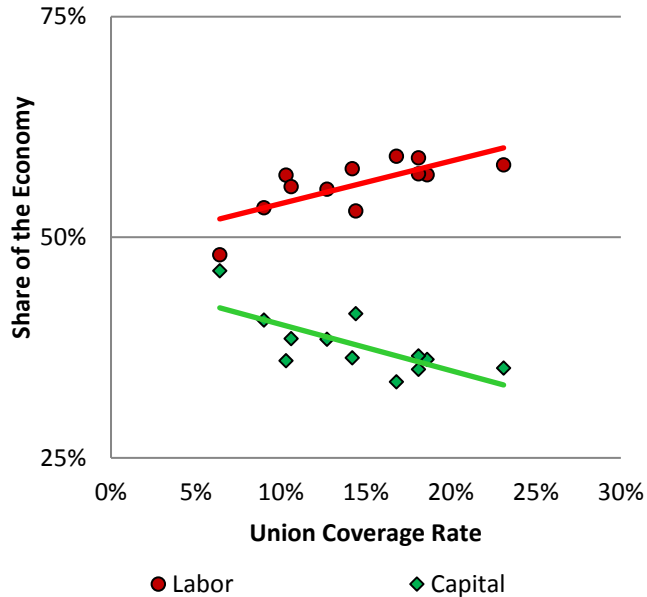
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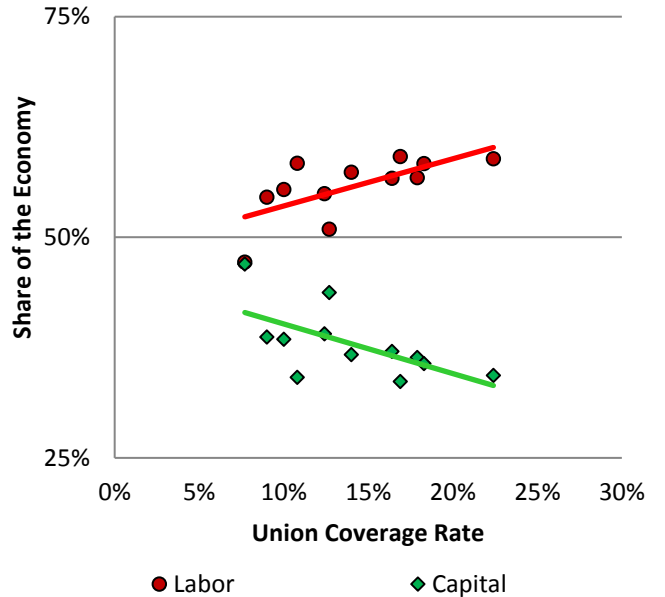
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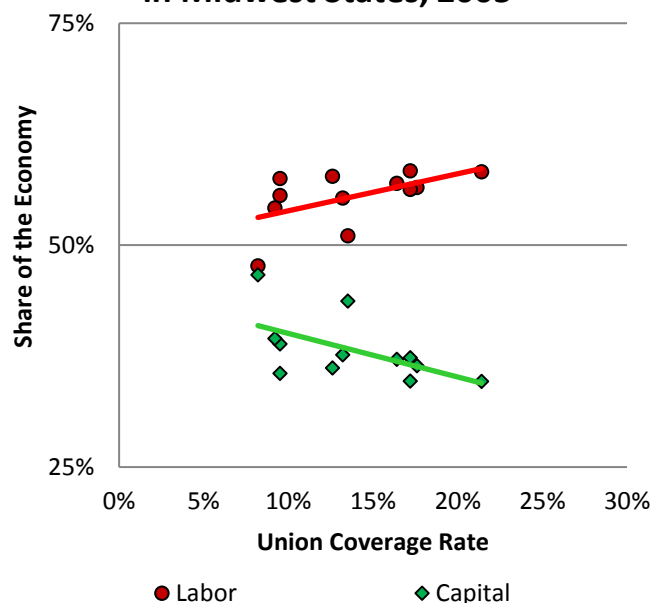
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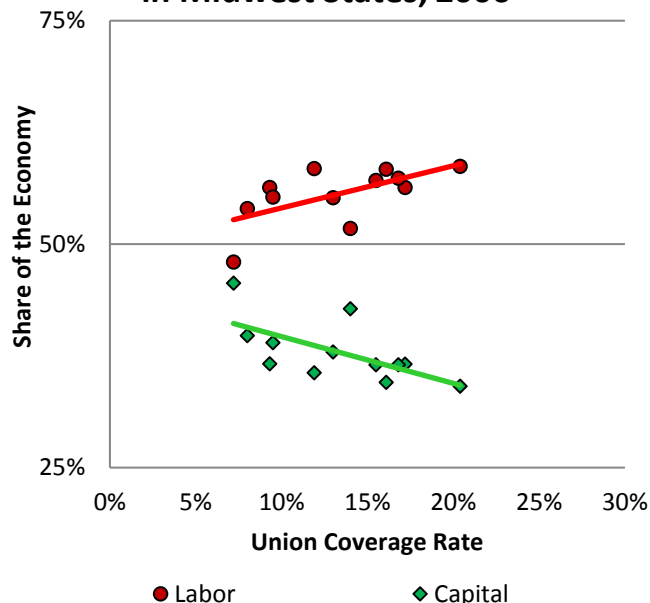
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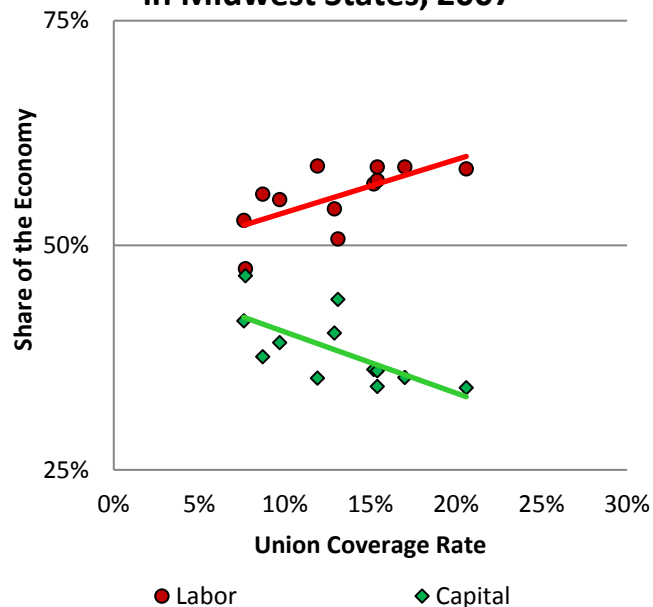
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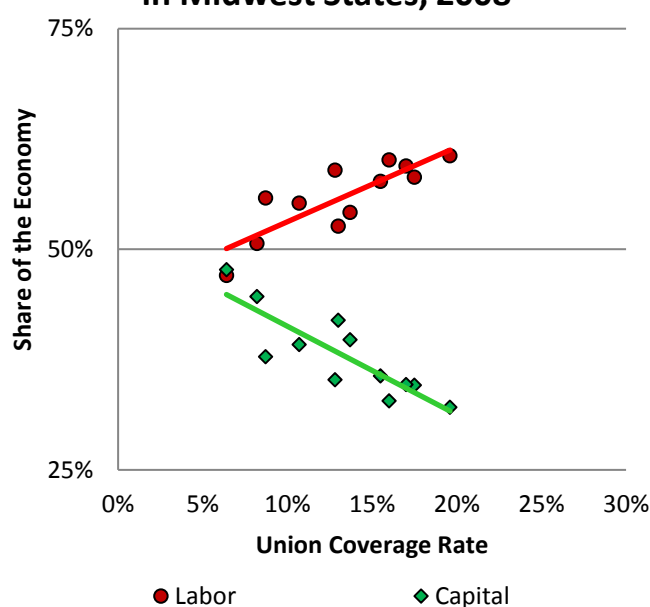
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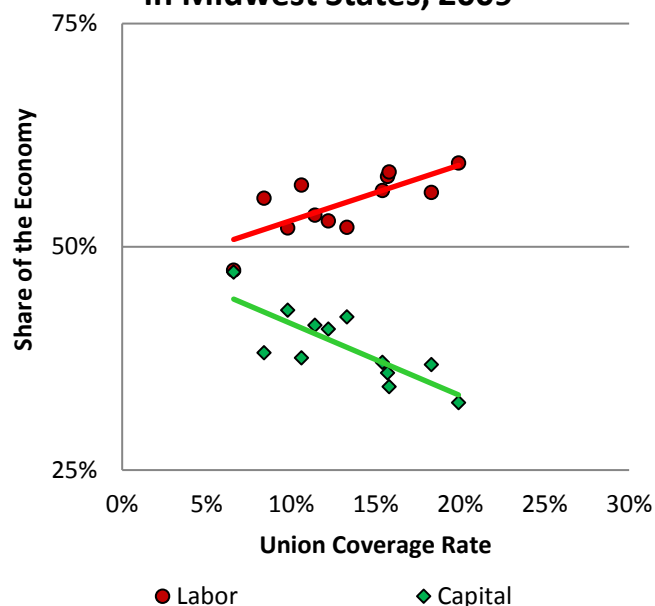
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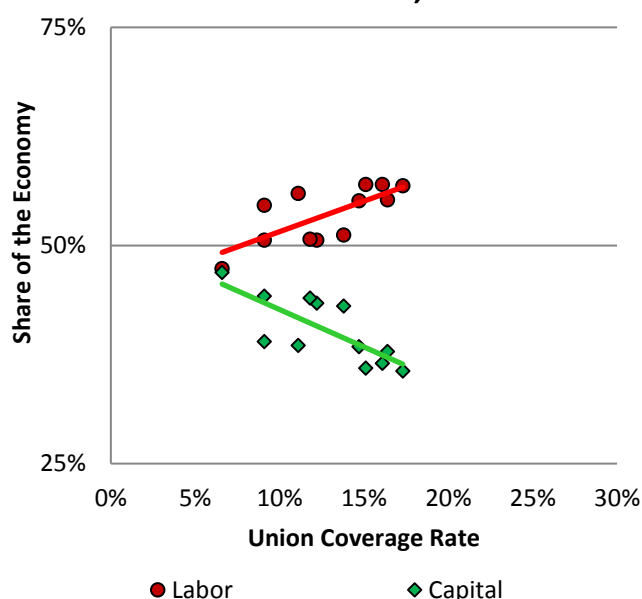
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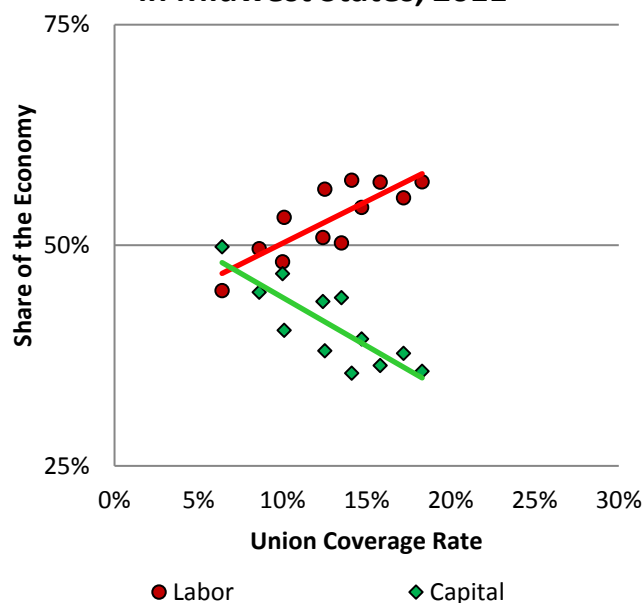
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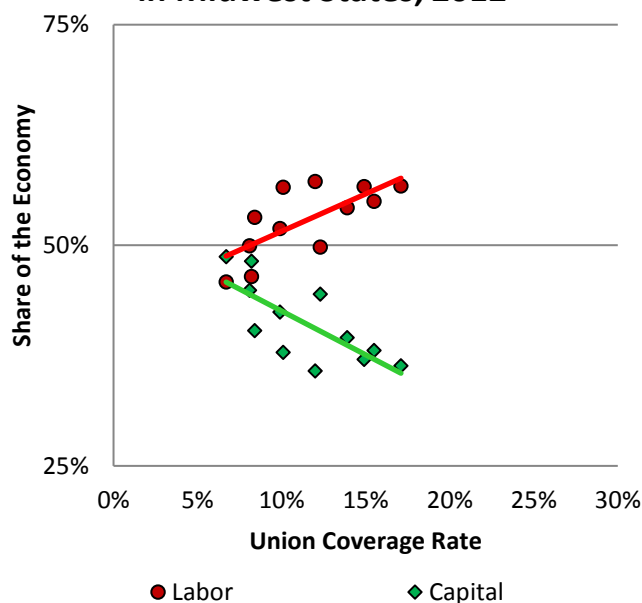
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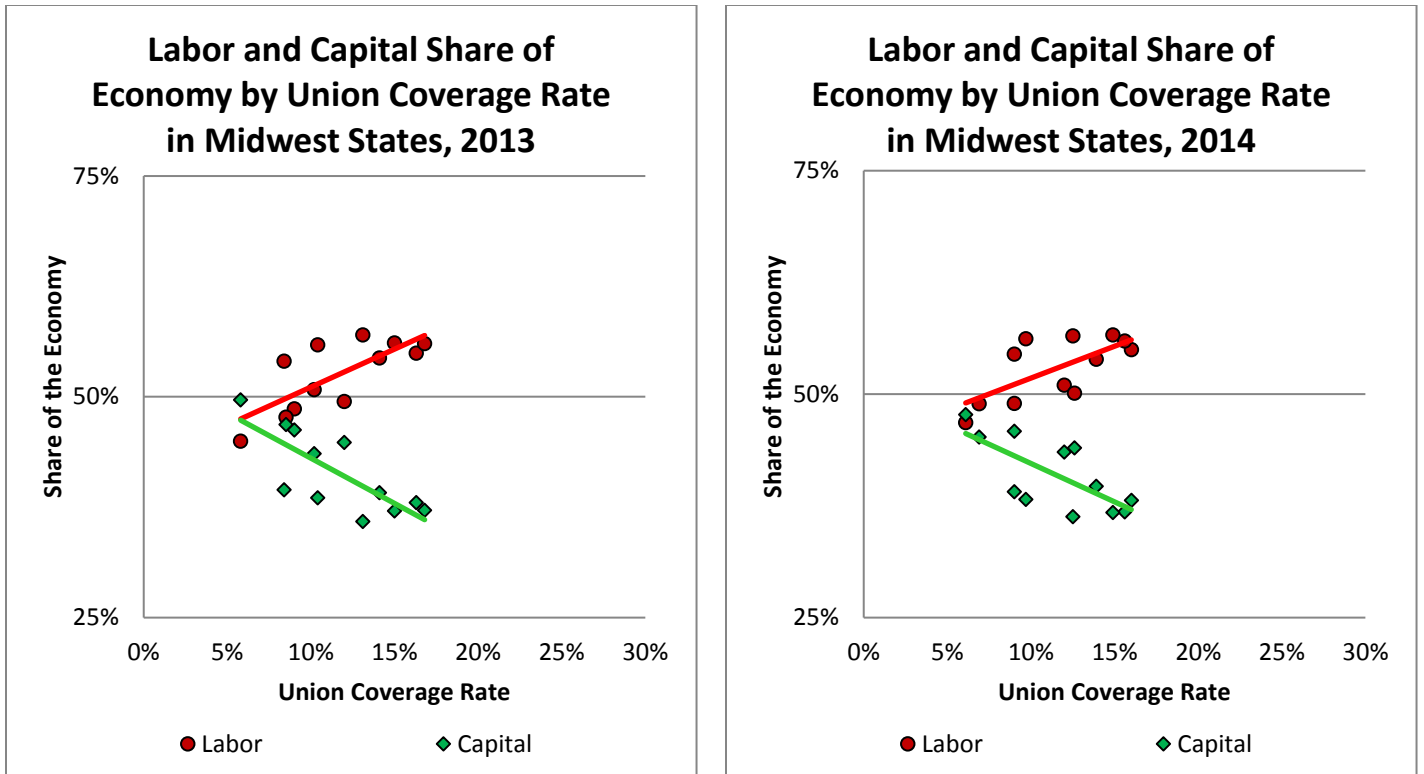
**Labor and Capital Share of Economy by Union Coverage Rate in Midwest States, 2011**



**Labor and Capital Share of Economy by Union Coverage Rate in Midwest States, 2012**







**Figure A: Correlations between Labor/Capital Shares and Unionization in the Midwest, by Year**

12 States in the Midwest	Correlation Between the Union Coverage Rate and:	
Year	Labor Share of Economy	Capital Share of Economy
1997	0.699	-0.581
1998	0.767	-0.696
1999	0.759	-0.702
2000	0.690	-0.645
2001	0.719	-0.716
2002	0.641	-0.631
2003	0.728	-0.723
2004	0.663	-0.626
2005	0.550	-0.566
2006	0.625	-0.639

12 States in the Midwest	Correlation Between the Union Coverage Rate and:	
Year	Labor Share of Economy	Capital Share of Economy
2007	0.655	-0.680
2008	0.834	-0.850
2009	0.740	-0.792
2010	0.721	-0.756
2011	0.821	-0.828
2012	0.711	-0.739
2013	0.748	-0.773
2014	0.681	-0.709
<b>Average</b>	<b>0.709</b>	<b>-0.703</b>