The Unions of the States

John Schmitt

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Acknowledgements

About the Author

John Schmitt is a Senior Economist at the Center for Economic and Policy Research in Washington, D.C.

Executive Summary

This report reviews unionization rates, the size and composition of the unionized workforce, and the wage and benefit advantage for union workers in each of the fifty states and the District of Columbia, using the most recent data available and focusing on the period 2003-2009. Pooling data from the monthly Current Population Survey (CPS) over that period yields a sample size large enough to look at the experience of even the smallest states.

Unionization rates vary substantially across the states, from below 5 percent of the overall workforce in South Carolina and North Carolina, to over 25 percent in New York and Hawaii. The unionization rate in the state right in the middle with respect to unionization is 12.6 percent (the rate in Missouri and Vermont). The absolute number of union workers in each state also varied greatly in 2009, from just 20,000 in Wyoming to about 2.6 million in California.

Across all the states, however, unionization is strongly associated with increases in overall compensation, measured here by hourly wages and health and pension benefit coverage. In the typical state, unionization is associated with about a 15 percent increase in hourly wages (roughly $2.50 per hour), a 19-percentage-point increase in the likelihood of having employer-provided health insurance, and a 24-percentage-point increase in the likelihood of having employer-sponsored retirement plans.

Introduction

Unionization rates and the composition of the unionized workforce vary significantly across the U.S. states. In all states, however, unions significantly increase the compensation of the workers they represent. This paper reviews unionization rates, the size and composition of the unionized workforce, and the wage and benefit advantage for union workers in each of the fifty states and the District of Columbia.

The paper uses the most recent data available and focuses on the period 2003-2009. Pooling data from the monthly Current Population Survey (CPS) over that period yields a sample size large enough to look at the experience of even the smallest states. (For a detailed discussion of data sources and methods, see the Data Appendix.)

Unionization rates vary substantially across the states, from below 5 percent of the overall workforce in South Carolina and North Carolina, to over 25 percent in New York and Hawaii. The absolute number of union workers in each state also varies greatly, from just 20,000 in Wyoming to about 2.6 million in California.

Across all the states, however, unionization is strongly associated with increases in overall compensation, measured here by hourly wages and health and pension benefit coverage. In the typical state, unionization is associated with about a 15 percent increase in hourly wages (roughly $2.50 per hour), a 19-percentage-point increase in the likelihood of having employer-provided health insurance, and a 24-percentage-point increase in the likelihood of having employer-sponsored retirement plans.
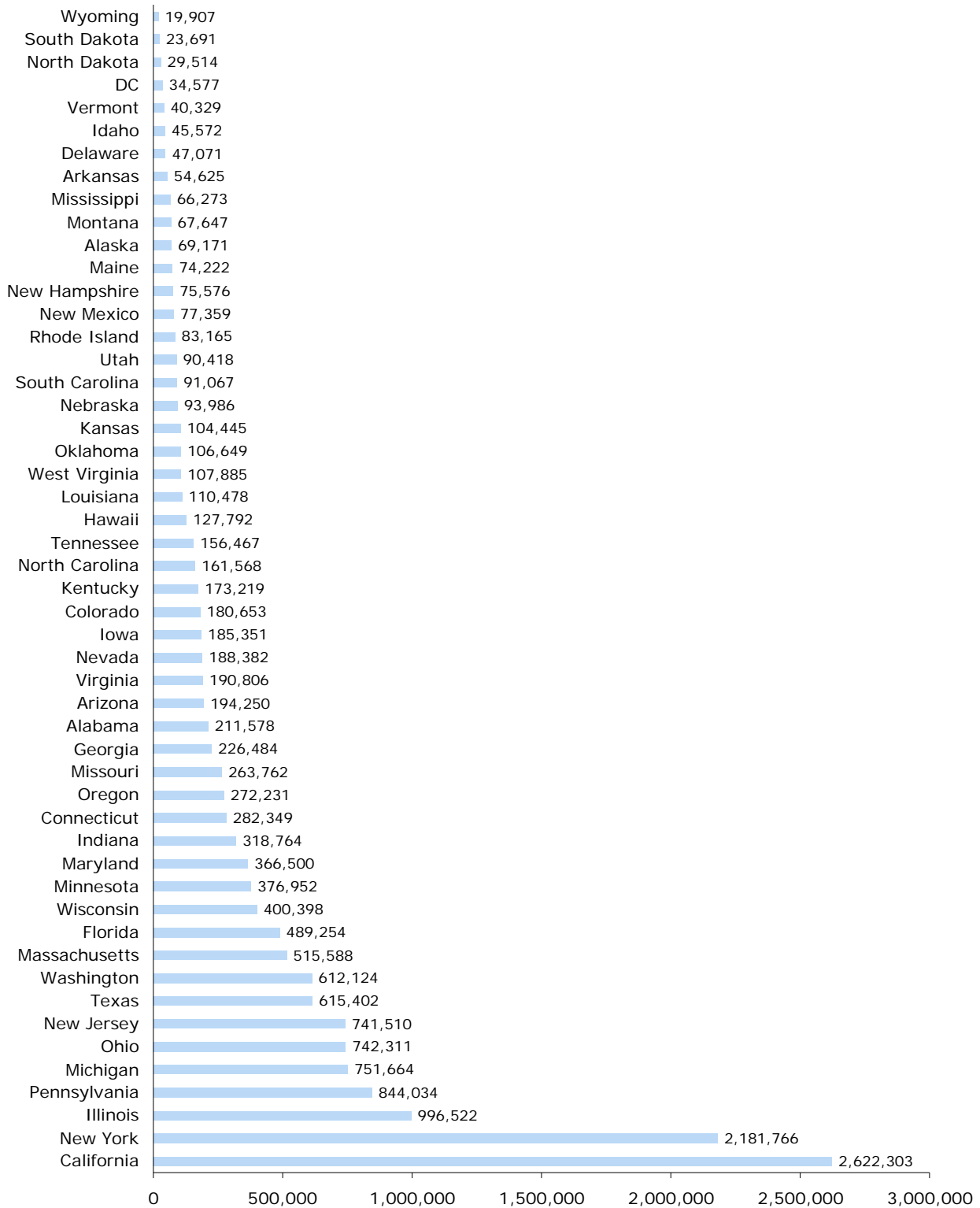
Size of the States' Union Workforces

We can measure the size of each state's unionized[1] workforce in two different ways. We can count the total number of union workers in each state or we can calculate the share of employees[2] in each state that are unionized.

Figure 1 shows the total number of unionized workers in each state in 2009. In the country as a whole, there were about 16.9 million union workers. Of these, the largest share lived in California (about 2.6 million), followed by New York (about 2.2 million). Other states with a large unionized workforce included Illinois (about 1.0 million), Pennsylvania (about 840,000), Michigan (about 750,000), and Ohio and New Jersey (both about 740,000). Despite having a unionization rate that is less than half of the national average, Texas had the eighth largest union population in 2009, with about 615,000 union workers, just above the much more heavily unionized Washington state (about 610,000). Massachusetts had the tenth largest union population, with about 516,000. The five states with the lowest union populations are Vermont (about 40,000), the District of Columbia (about 35,000), North Dakota (about 30,000), South Dakota (about 24,000), and Wyoming (about 20,000).

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1   The unionized workforce consists of those employees that are either a member of a union at their workplace or represented by a union at their workplace.
2   This analysis excludes self-employed workers and those in the active-duty military.

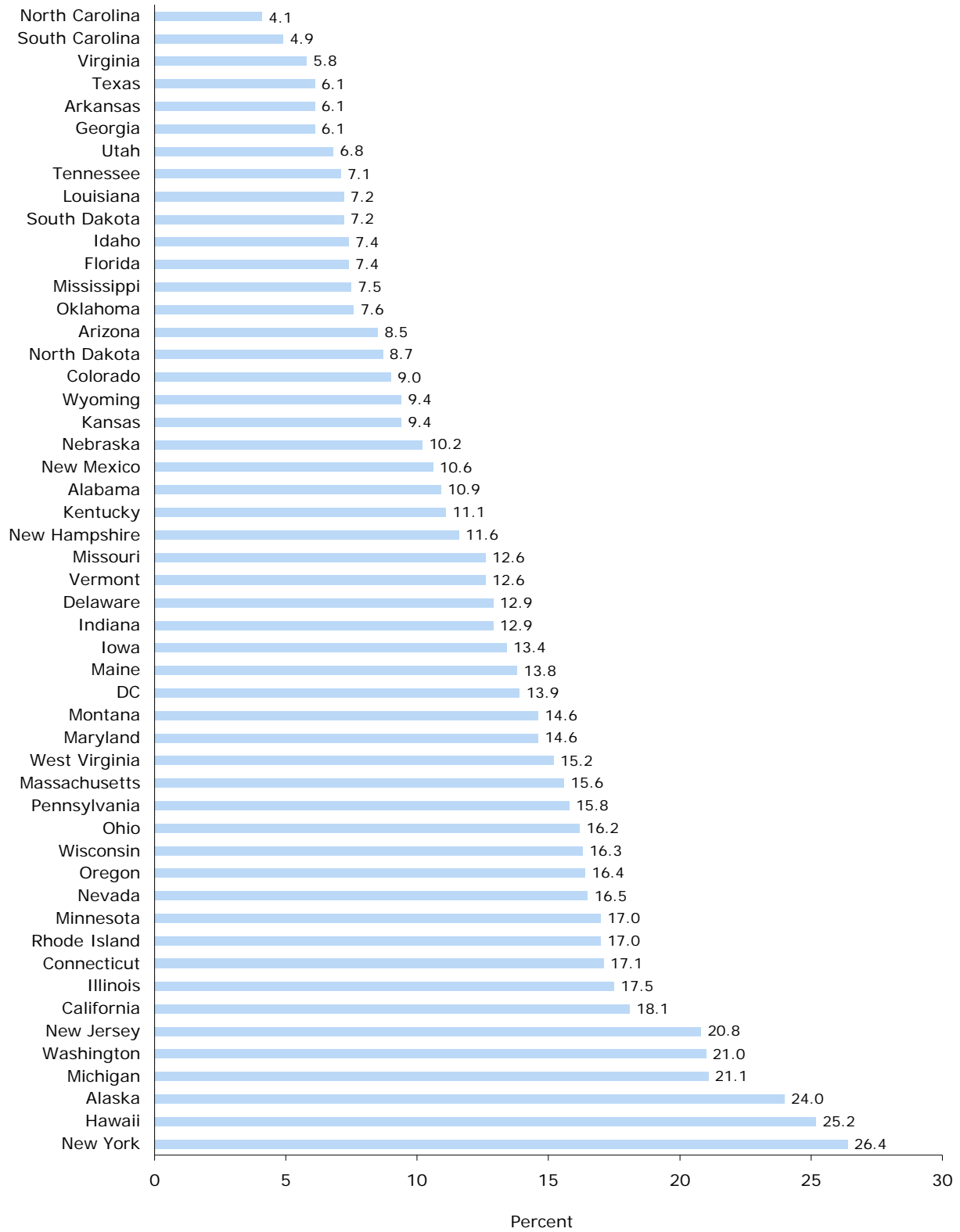| State	Union Workers
Wyoming	19,907
South Dakota	23,691
North Dakota	29,514
DC	34,577
Vermont	40,329
Idaho	45,572
Delaware	47,071
Arkansas	54,625
Mississippi	66,273
Montana	67,647
Alaska	69,171
Maine	74,222
New Hampshire	75,576
New Mexico	77,359
Rhode Island	83,165
Utah	90,418
South Carolina	91,067
Nebraska	93,986
Kansas	104,445
Oklahoma	106,649
West Virginia	107,885
Louisiana	110,478
Hawaii	127,792
Tennessee	156,467
North Carolina	161,568
Kentucky	173,219
Colorado	180,653
Iowa	185,351
Nevada	188,382
Virginia	190,806
Arizona	194,250
Alabama	211,578
Georgia	226,484
Missouri	263,762
Oregon	272,231
Connecticut	282,349
Indiana	318,764
Maryland	366,500
Minnesota	376,952
Wisconsin	400,398
Florida	489,254
Massachusetts	515,588
Washington	612,124
Texas	615,402
New Jersey	741,510
Ohio	742,311
Michigan	751,664
Pennsylvania	844,034
Illinois	996,522
New York	2,181,766
California	2,622,303

FIGURE 1
Union Workers by State, 2009
Total number of workers in each state that are members of, or represented by, a union.
Source: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.

Figure 2 displays the share of each state's workforce that was unionized in 2009. The unionization rate for the nation as a whole was 13.6. In New York, the state with the highest unionization rate, 26.4 percent of all employees were unionized. Hawaii (25.2 percent) and Alaska (24.0 percent) were close behind. Three other states had at least a 20 percent unionization rate: Michigan (21.1 percent), Washington state (21.0), and New Jersey (20.8 percent). California (18.1 percent) was the next most heavily unionized state. The rest of the top ten were filled out by Illinois (17.5 percent), Connecticut (17.1 percent), and Minnesota and Rhode Island (tied for tenth, at 17.0 percent each). Six states had a unionization rate that was less than half of the national average: Texas, Georgia, and Arkansas (all with 6.1 percent), as well as Virginia (5.8 percent), South Carolina (4.9 percent), and North Carolina (4.1 percent).

State	Percent
North Carolina	4.1
South Carolina	4.9
Virginia	5.8
Texas	6.1
Arkansas	6.1
Georgia	6.1
Utah	6.8
Tennessee	7.1
Louisiana	7.2
South Dakota	7.2
Idaho	7.4
Florida	7.4
Mississippi	7.5
Oklahoma	7.6
Arizona	8.5
North Dakota	8.7
Colorado	9.0
Wyoming	9.4
Kansas	9.4
Nebraska	10.2
New Mexico	10.6
Alabama	10.9
Kentucky	11.1
New Hampshire	11.6
Missouri	12.6
Vermont	12.6
Delaware	12.9
Indiana	12.9
Iowa	13.4
Maine	13.8
DC	13.9
Montana	14.6
Maryland	14.6
West Virginia	15.2
Massachusetts	15.6
Pennsylvania	15.8
Ohio	16.2
Wisconsin	16.3
Oregon	16.4
Nevada	16.5
Minnesota	17.0
Rhode Island	17.0
Connecticut	17.1
Illinois	17.5
California	18.1
New Jersey	20.8
Washington	21.0
Michigan	21.1
Alaska	24.0
Hawaii	25.2
New York	26.4

Percent

FIGURE 2
Unionization Rate by State, 2009
Percent of each state's total employees that are members of, or represented by, a union.
Source: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.

Characteristics of the States' Union Workforces

The characteristics of the unionized workforce vary widely across states. **Table 1A** gives basic demographic data for each state's union workforce, including the share that is female, black, white, Latino, or Asian Pacific American (APA). **Table 1B** shows the shares of the states' unionized workforces that have less than a high school degree, a high school degree, some college (but not a four-year degree), and a four-year college degree or more, as well as the share who were born outside the country, work in manufacturing, or work in the public sector. For purposes of comparison, **Tables 2A** and **2B** provide the same data for each state's overall workforce (excluding the self-employed and the military).

The racial and ethnic composition of each state's union sector (in Tables 1A and 1B) generally tracks the racial and ethnic composition of the state's overall workforce (in Tables 2A and 2B). For example, states with a high share of African Americans in the overall workforce (Maryland, 28.0 percent, or Mississippi, 32.5 percent, in Table 2A) also tend to have a high share of African Americans in their unionized workforce (Maryland, 40.4 percent, or Mississippi, 36.3 percent, in Table 1A). A similar pattern holds for Latinos, Asian Pacific Americans (APA), and immigrants.

The biggest determinant of differences across states in the share of women in the overall unionized workforce, however, is the share of the public sector in the overall union workforce in each state (see **Figure 3**). The bigger the public sector is as a share of total union employment, the higher the share of women in the total union workforce, which likely reflects the high share of women in teaching and health professions.

Moreover, the share of states' unionized employees who are in the public sector varies much more than the share of states' overall employees who are in the public sector (see **Figure 4**), which may respond to differences in state laws regarding public-sector organizing or state attitudes about unionization.[3]

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3   Several academic papers have studied the determinants of public-sector unionization rates. See, for example, Tom Juravich and Kate Bronfenbrenner, "The Impact of Employer Opposition on Union Certification Win Rates: A Private/Public Sector Comparison," 1994, http://digitalcommons.ilr.cornell.edu/articles/19; Tom Juravich and Kate Bronfenbrenner, "Preparing for the Worst: Organizing and Staying Organized in the Public Sector," 1998, http://digitalcommons.ilr.cornell.edu/articles/186; Tom Juravich, Kate Bronfenbrenner, and Robert Hickey, "Significant Victories: The Practice and Promise of First Contracts in the Public and Private Sectors," 2002, http://digitalcommons.ilr.cornell.edu/reports/2; and, Kevin M. O'Brien, "The Determinants of Union Election Success in the Public Sector: An Interstate Analysis," *Journal of Collective Negotiation*, vol. 30 (2003), no. 2, pp. 169-181.

TABLE 1A
Basic Demographic Characteristics of the Union Workforce, by State, 2003-2009

	Unionization rate (percent)	Total union workers, 2009	Share of union workforce (percent)				
			Female	White	Black	Latino	APA
Alabama	10.9	211,578	43.8	73.3	24.1	0.8	0.9
Alaska	24.0	69,171	42.8	79.0	3.5	3.4	6.3
Arizona	8.5	194,250	44.6	72.3	4.7	18.5	2.1
Arkansas	6.1	54,625	46.8	75.2	19.6	2.4	1.6
California	18.1	2,622,303	47.5	49.5	8.4	29.2	11.9
Colorado	9.0	180,653	42.8	71.3	5.7	20.9	1.6
Connecticut	17.1	282,349	48.0	78.5	11.8	7.4	1.9
DC	13.9	34,577	53.0	22.9	66.4	8.3	2.4
Delaware	12.9	47,071	43.5	70.5	24.0	3.0	1.9
Florida	7.4	489,254	46.4	65.0	19.1	13.7	1.6
Georgia	6.1	226,484	41.6	60.1	32.9	4.6	1.6
Hawaii	25.2	127,792	43.3	15.2	1.8	6.5	74.6
Idaho	7.4	45,572	41.1	90.2	0.9	6.4	0.8
Illinois	17.5	996,522	37.3	68.3	17.8	11.7	1.9
Indiana	12.9	318,764	33.6	84.6	10.0	4.1	0.5
Iowa	13.4	185,351	42.3	91.5	1.8	3.7	2.4
Kansas	9.4	104,445	38.7	83.1	6.9	5.2	2.2
Kentucky	11.1	173,219	40.2	86.6	11.0	1.5	0.4
Louisiana	7.2	110,478	42.0	60.1	36.5	1.8	1.0
Maine	13.8	74,222	44.8	97.1	0.4	0.8	0.5
Maryland	14.6	366,500	48.1	51.4	40.4	4.6	2.9
Massachusetts	15.6	515,588	47.3	85.8	6.1	5.4	2.4
Michigan	21.1	751,664	45.8	76.5	17.5	3.3	1.7
Minnesota	17.0	376,952	46.7	90.6	3.5	2.3	2.7
Mississippi	7.5	66,273	43.1	60.6	36.3	1.6	0.8
Missouri	12.6	263,762	34.7	83.2	12.4	3.0	0.5
Montana	14.6	67,647	47.4	93.8	0.2	1.5	0.1
Nebraska	10.2	93,986	46.8	87.8	3.2	6.8	1.6
Nevada	16.5	188,382	40.5	60.8	8.2	21.6	8.1
New Hampshire	11.6	75,576	47.8	95.6	1.4	1.6	0.8
New Jersey	20.8	741,510	46.0	65.3	17.1	12.7	4.7
New Mexico	10.6	77,359	48.1	41.7	2.4	42.4	1.4
New York	26.4	2,181,766	47.9	61.7	19.4	13.9	4.6
North Carolina	4.1	161,568	44.6	61.7	29.5	3.8	1.7
North Dakota	8.7	29,514	45.5	95.2	0.3	0.6	0.7
Ohio	16.2	742,311	41.8	84.2	12.5	2.1	0.6
Oklahoma	7.6	106,649	44.6	77.3	8.2	3.0	0.8
Oregon	16.4	272,231	49.3	86.4	2.5	5.8	2.9
Pennsylvania	15.8	844,034	42.3	84.5	11.1	3.1	1.1
Rhode Island	17.0	83,165	47.6	88.5	5.2	4.3	1.2
South Carolina	4.9	91,067	44.7	58.5	37.7	1.5	1.7
South Dakota	7.2	23,691	45.3	89.1	2.7	2.9	1.1
Tennessee	7.1	156,467	40.9	79.4	17.7	1.6	1.0
Texas	6.1	615,402	42.7	52.8	15.3	29.2	1.6
Utah	6.8	90,418	42.7	88.8	0.3	7.6	2.6
Vermont	12.6	40,329	55.6	96.3	0.4	0.8	0.7
Virginia	5.8	190,806	44.9	71.1	21.4	3.2	4.0
Washington	21.0	612,124	44.7	82.2	4.0	4.8	6.5
West Virginia	15.2	107,885	35.1	94.8	3.3	0.9	0.4
Wisconsin	16.3	400,398	44.6	88.7	5.6	4.0	1.2
Wyoming	9.4	19,907	36.3	90.9	0.4	6.2	0.6
United States	**13.6**	**16,903,611**	**44.6**	**69.4**	**13.6**	**11.6**	**4.5**

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group. Data for total refer to 2009; remaining data are averages for 2003-2009. "APA" is Asian Pacific Americans; race and ethnicity figures do not total to 100 percent because category for other racial and ethnic groups is not shown.

TABLE 1B
Additional Characteristics of the Union Workforce, by State, 2003-2009
(percent of total union employees in each state)

	Less than High School	High School	Some College	College or more	Immigrant	Manu-facturing	Public sector
Alabama	4.6	31.1	26.5	37.8	1.5	21.5	54.1
Alaska	3.2	26.3	33.6	36.9	6.7	2.6	62.8
Arizona	4.6	20.7	33.1	41.6	8.7	6.0	45.1
Arkansas	5.1	37.2	24.2	33.5	2.8	25.6	47.8
California	6.8	22.8	33.5	37.0	24.5	5.9	51.6
Colorado	8.1	24.8	28.2	38.9	10.4	10.9	46.2
Connecticut	4.2	31.0	24.6	40.2	9.7	8.8	56.5
DC	7.9	30.5	19.8	41.9	12.6	0.9	50.5
Delaware	4.7	37.0	24.3	34.0	5.6	12.5	51.2
Florida	3.0	25.0	29.1	42.9	13.0	3.2	62.3
Georgia	4.4	31.4	24.9	39.2	5.9	14.0	43.6
Hawaii	3.9	31.5	31.1	33.6	18.2	2.8	48.3
Idaho	4.5	26.3	31.5	37.7	3.4	12.6	51.1
Illinois	6.3	32.2	30.1	31.5	11.1	13.0	41.2
Indiana	6.2	38.5	28.1	27.2	3.0	31.6	32.8
Iowa	5.1	30.7	30.4	33.9	5.5	26.9	50.4
Kansas	3.7	27.6	28.1	40.6	4.0	26.2	46.0
Kentucky	5.1	37.2	29.3	28.4	2.2	19.3	37.7
Louisiana	6.3	32.9	26.0	34.8	2.5	22.6	45.4
Maine	2.0	28.9	26.5	42.6	2.2	17.9	62.3
Maryland	4.4	32.1	24.9	38.6	10.6	5.5	56.9
Massachusetts	5.2	28.3	22.0	44.5	10.8	6.1	51.6
Michigan	4.2	33.3	33.3	29.2	4.8	25.9	38.6
Minnesota	2.7	25.9	35.3	36.2	5.3	10.8	49.1
Mississippi	6.3	29.7	33.6	30.4	1.8	27.6	42.2
Missouri	5.1	35.9	31.2	27.9	2.6	19.7	30.5
Montana	1.9	28.4	31.5	38.1	0.6	5.4	60.0
Nebraska	5.2	23.2	26.1	45.5	7.4	14.1	57.6
Nevada	10.0	39.2	26.6	24.2	23.1	3.8	29.2
New Hampshire	2.9	26.4	24.0	46.8	3.4	7.6	63.8
New Jersey	5.9	33.7	21.8	38.5	18.1	6.0	52.2
New Mexico	4.4	29.2	29.5	36.9	5.8	3.4	65.3
New York	6.1	31.4	25.6	36.9	23.7	5.3	50.3
North Carolina	4.7	24.7	27.8	42.7	5.2	14.5	51.8
North Dakota	1.6	19.1	27.6	51.8	1.6	8.5	59.7
Ohio	4.5	39.0	27.2	29.2	2.2	20.8	44.4
Oklahoma	3.1	22.6	32.0	42.3	2.8	12.9	57.1
Oregon	3.9	24.7	35.2	36.3	5.6	10.0	54.3
Pennsylvania	4.3	42.2	21.2	32.4	3.5	15.4	45.4
Rhode Island	5.9	30.0	24.6	39.5	9.8	6.8	54.8
South Carolina	3.5	31.1	26.5	39.0	2.8	16.0	50.8
South Dakota	4.8	24.8	27.9	42.5	5.7	14.3	61.5
Tennessee	4.7	32.4	27.7	35.2	1.6	19.7	48.2
Texas	7.4	24.7	29.4	38.5	9.6	13.7	52.4
Utah	4.1	27.1	31.4	37.5	6.0	10.4	55.2
Vermont	2.6	21.4	23.7	52.4	4.1	6.0	63.6
Virginia	5.5	30.5	23.1	40.8	7.8	13.8	49.3
Washington	3.1	26.0	37.4	33.5	8.9	13.6	47.7
West Virginia	4.2	44.2	23.9	27.8	0.6	20.3	41.0
Wisconsin	3.5	32.6	31.6	32.3	3.3	21.8	46.3
Wyoming	2.4	29.7	34.3	33.6	2.1	13.4	48.6
United States	**5.3**	**30.3**	**28.8**	**35.7**	**12.1**	**12.0**	**48.5**

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.

TABLE 2A
Basic Demographic Characteristics of All Employees, by State, 2003-2009
(percent of total employees in each state; except total)

	Unionization rate	Total employees, 2009	Female	White	Black	Latino	APA
Alabama	10.9	1,551,517	47.6	71.6	22.8	3.0	1.2
Alaska	24.0	223,762	47.4	74.5	3.5	4.4	7.2
Arizona	8.5	2,276,388	45.1	63.9	3.6	27.5	2.7
Arkansas	6.1	1,048,096	48.0	78.0	14.1	4.9	1.6
California	18.1	11,674,851	45.6	46.6	5.9	33.0	13.7
Colorado	9.0	1,994,895	45.3	75.9	3.6	16.9	2.7
Connecticut	17.1	1,255,729	48.7	77.6	8.9	9.4	3.8
DC	13.9	241,464	51.3	41.4	45.0	9.7	3.6
Delaware	12.9	320,316	49.0	70.5	19.7	6.3	3.0
Florida	7.4	6,607,808	47.5	62.3	13.9	20.7	2.6
Georgia	6.1	3,642,916	47.2	61.4	27.7	7.2	3.3
Hawaii	25.2	398,052	48.3	18.2	2.2	6.3	71.0
Idaho	7.4	531,640	45.8	87.0	0.7	8.9	1.5
Illinois	17.5	4,438,441	47.0	70.6	12.1	12.4	4.6
Indiana	12.9	2,293,418	47.3	86.8	7.4	4.4	0.9
Iowa	13.4	1,212,544	48.7	91.0	2.0	4.3	2.2
Kansas	9.4	1,144,119	47.4	83.6	5.0	6.6	2.7
Kentucky	11.1	1,484,031	47.8	89.1	7.0	2.0	1.4
Louisiana	7.2	1,593,147	48.7	67.4	27.8	2.9	1.3
Maine	13.8	468,545	49.9	96.1	0.8	0.8	1.0
Maryland	14.6	2,188,055	48.9	58.6	28.0	7.8	5.2
Massachusetts	15.6	2,348,593	49.1	82.7	5.5	6.4	5.1
Michigan	21.1	3,033,618	47.8	81.4	11.3	3.3	3.0
Minnesota	17.0	2,023,543	48.5	88.0	3.6	3.6	3.9
Mississippi	7.5	962,891	49.0	62.7	32.5	2.9	0.8
Missouri	12.6	2,217,196	48.9	84.2	10.2	2.8	1.8
Montana	14.6	306,184	49.8	91.6	0.5	2.2	0.8
Nebraska	10.2	729,366	48.4	86.5	3.7	6.6	1.9
Nevada	16.5	908,444	44.5	62.3	7.1	21.3	8.2
New Hampshire	11.6	540,274	48.2	94.1	1.1	1.8	2.2
New Jersey	20.8	2,992,697	47.0	63.4	12.4	16.1	7.9
New Mexico	10.6	682,105	47.7	48.7	1.9	39.9	1.6
New York	26.4	5,839,271	48.2	64.4	13.7	14.4	7.2
North Carolina	4.1	3,545,699	48.1	68.7	19.9	7.3	2.1
North Dakota	8.7	271,875	49.7	91.8	0.9	1.2	0.8
Ohio	16.2	4,084,844	48.6	85.2	10.1	2.6	1.6
Oklahoma	7.6	1,348,959	47.1	74.9	7.1	5.6	1.7
Oregon	16.4	1,198,432	46.6	82.7	1.8	9.0	4.4
Pennsylvania	15.8	4,376,297	48.6	85.5	8.6	3.6	1.9
Rhode Island	17.0	361,127	49.4	82.7	5.1	8.8	2.8
South Carolina	4.9	1,580,564	48.8	68.7	26.3	3.2	1.1
South Dakota	7.2	333,252	49.5	92.1	0.9	2.0	1.2
Tennessee	7.1	2,230,656	48.1	78.3	15.7	3.7	1.5
Texas	6.1	9,304,680	45.4	49.6	10.8	35.0	3.9
Utah	6.8	1,045,983	44.0	84.2	1.0	10.8	3.0
Vermont	12.6	245,054	49.6	95.9	0.7	0.9	1.3
Virginia	5.8	3,311,862	48.5	69.1	18.5	6.5	5.5
Washington	21.0	2,234,960	47.0	78.4	3.3	7.3	8.3
West Virginia	15.2	591,013	47.2	94.7	3.1	0.8	0.5
Wisconsin	16.3	2,127,726	48.8	88.2	4.2	4.6	2.0
Wyoming	9.4	219,282	45.4	90.0	0.9	6.3	0.9
United States	**13.6**	**107,586,181**	**47.4**	**69.3**	**11.1**	**13.7**	**5.0**

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group. Data for total refer to 2009; remaining data are averages for 2003-2009. "APA" is Asian Pacific Americans; race and ethnicity figures do not total to 100 percent because category for other racial and ethnic groups is not shown.

TABLE 2B
Additional Characteristics of All Employees, by State, 2003-2009
(percent of total employees in each state)

|	Less than High School	High School	Some College	College or more	Immigrant	Manu-facturing	Public sector
Alabama	10.2	33.9	30.6	25.4	4.4	17.0	16.9
Alaska	7.0	30.1	35.1	27.8	8.2	5.2	27.1
Arizona	12.6	27.9	32.2	27.3	18.1	9.3	14.8
Arkansas	10.8	38.1	29.4	21.6	5.3	17.1	16.8
California	13.4	23.8	30.3	32.5	33.9	11.6	15.5
Colorado	8.7	25.2	29.0	37.1	11.7	9.6	14.8
Connecticut	7.5	28.8	25.7	38.0	15.0	13.3	14.3
DC	7.7	19.8	16.4	56.1	16.7	1.3	26.7
Delaware	9.7	34.6	26.5	29.2	9.7	10.8	15.0
Florida	8.8	31.7	30.2	29.4	22.8	6.2	13.9
Georgia	10.1	31.5	27.6	30.9	12.1	12.3	15.5
Hawaii	5.6	31.8	31.8	30.8	21.6	3.2	20.7
Idaho	10.4	31.6	33.6	24.4	6.8	11.2	17.3
Illinois	9.0	28.8	29.1	33.1	15.9	13.3	13.4
Indiana	9.4	37.2	29.0	24.4	4.5	20.4	13.0
Iowa	8.6	31.2	33.2	27.1	6.0	17.3	15.9
Kansas	8.4	27.3	32.2	32.0	6.8	14.0	18.5
Kentucky	9.8	35.8	29.5	24.9	3.7	15.7	17.3
Louisiana	11.2	35.9	27.5	25.4	3.5	12.4	16.4
Maine	6.7	35.2	30.0	28.1	2.7	11.5	15.7
Maryland	8.0	28.5	25.4	38.1	17.2	5.6	23.1
Massachusetts	7.3	27.0	23.3	42.4	16.1	10.2	12.8
Michigan	7.1	30.8	33.0	29.1	7.0	20.1	13.3
Minnesota	6.7	24.9	34.7	33.8	7.8	14.8	14.0
Mississippi	11.8	32.9	31.9	23.4	3.3	18.2	20.1
Missouri	8.5	33.0	30.7	27.8	4.1	13.4	13.8
Montana	6.7	31.5	33.5	28.3	1.5	6.1	20.3
Nebraska	9.1	28.6	33.9	28.5	7.2	12.4	16.8
Nevada	11.7	36.2	29.6	22.6	22.7	5.0	11.8
New Hampshire	6.9	29.2	28.8	35.1	6.0	15.3	13.6
New Jersey	8.0	30.5	23.1	38.5	25.5	10.4	15.4
New Mexico	11.3	29.9	30.9	28.0	10.1	7.3	24.8
New York	8.8	30.3	25.3	35.6	25.4	8.0	17.7
North Carolina	11.2	30.2	29.7	28.9	9.5	14.4	15.8
North Dakota	7.0	27.0	36.9	29.1	2.2	8.8	20.9
Ohio	8.0	36.6	28.8	26.6	4.2	17.4	14.2
Oklahoma	9.3	32.9	31.6	26.3	5.2	12.5	18.4
Oregon	8.9	28.1	33.1	29.9	11.3	13.4	14.7
Pennsylvania	7.9	38.2	24.1	29.8	5.5	14.2	12.5
Rhode Island	10.5	30.0	27.2	32.3	15.0	13.8	13.6
South Carolina	10.1	33.3	30.0	26.5	4.4	16.3	17.4
South Dakota	8.2	31.2	34.4	26.3	3.3	12.5	16.9
Tennessee	10.5	35.0	27.0	27.5	5.7	15.3	15.3
Texas	15.8	28.8	28.6	26.8	19.5	12.4	15.5
Utah	9.3	29.3	35.4	26.0	10.2	12.9	17.1
Vermont	6.7	32.8	25.9	34.7	4.0	12.4	15.6
Virginia	8.8	29.8	25.4	36.0	13.2	8.4	19.7
Washington	7.4	26.0	34.6	32.0	13.5	12.3	17.2
West Virginia	8.2	43.0	27.1	21.8	1.2	13.2	20.0
Wisconsin	7.7	33.6	31.5	27.2	5.1	19.4	13.1
Wyoming	8.6	33.2	37.7	20.6	2.5	14.2	22.0
United States	**9.9**	**30.4**	**29.0**	**30.6**	**15.1**	**12.4**	**15.6**

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.
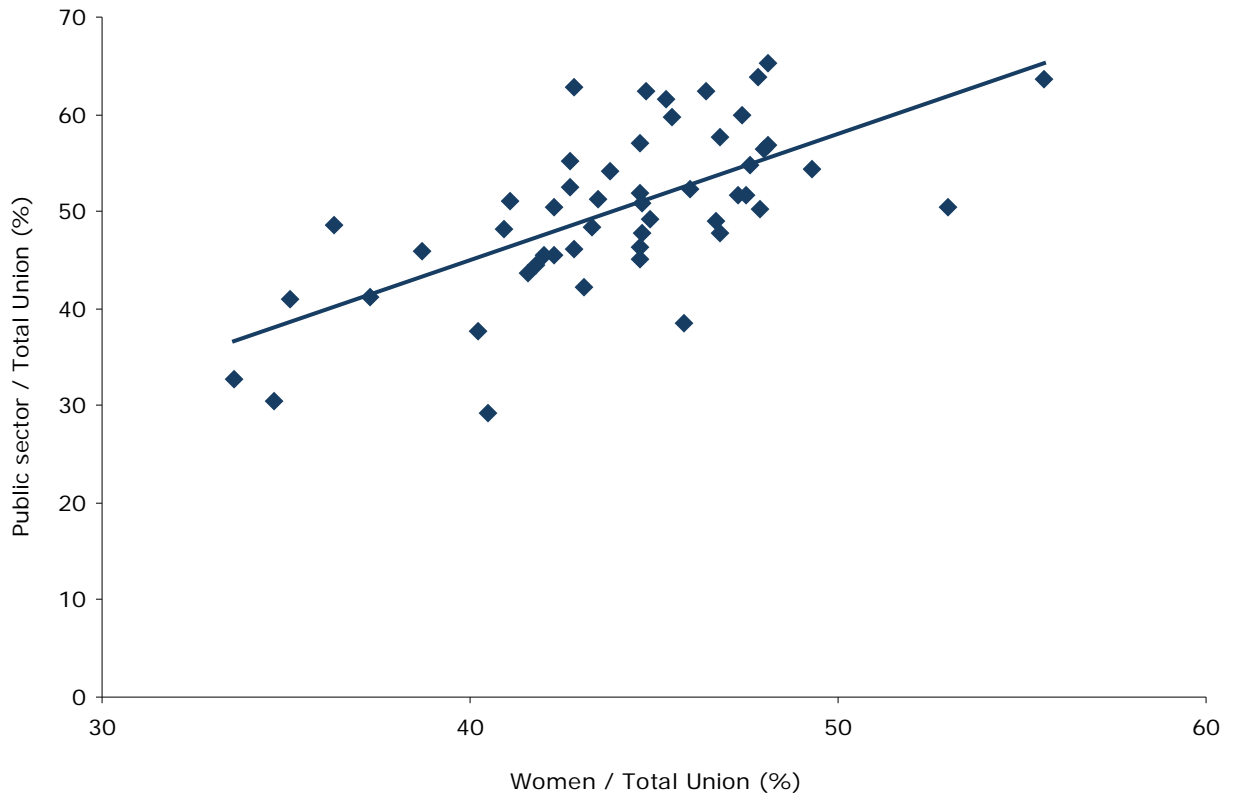
FIGURE 3
Women and Public Sector Workers in the Unionized Workforce, 2003-2009
Across the U.S. states, the higher the share of public-sector workers in total union employment, the bigger the share
of women in the unionized workforce.
Source: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.
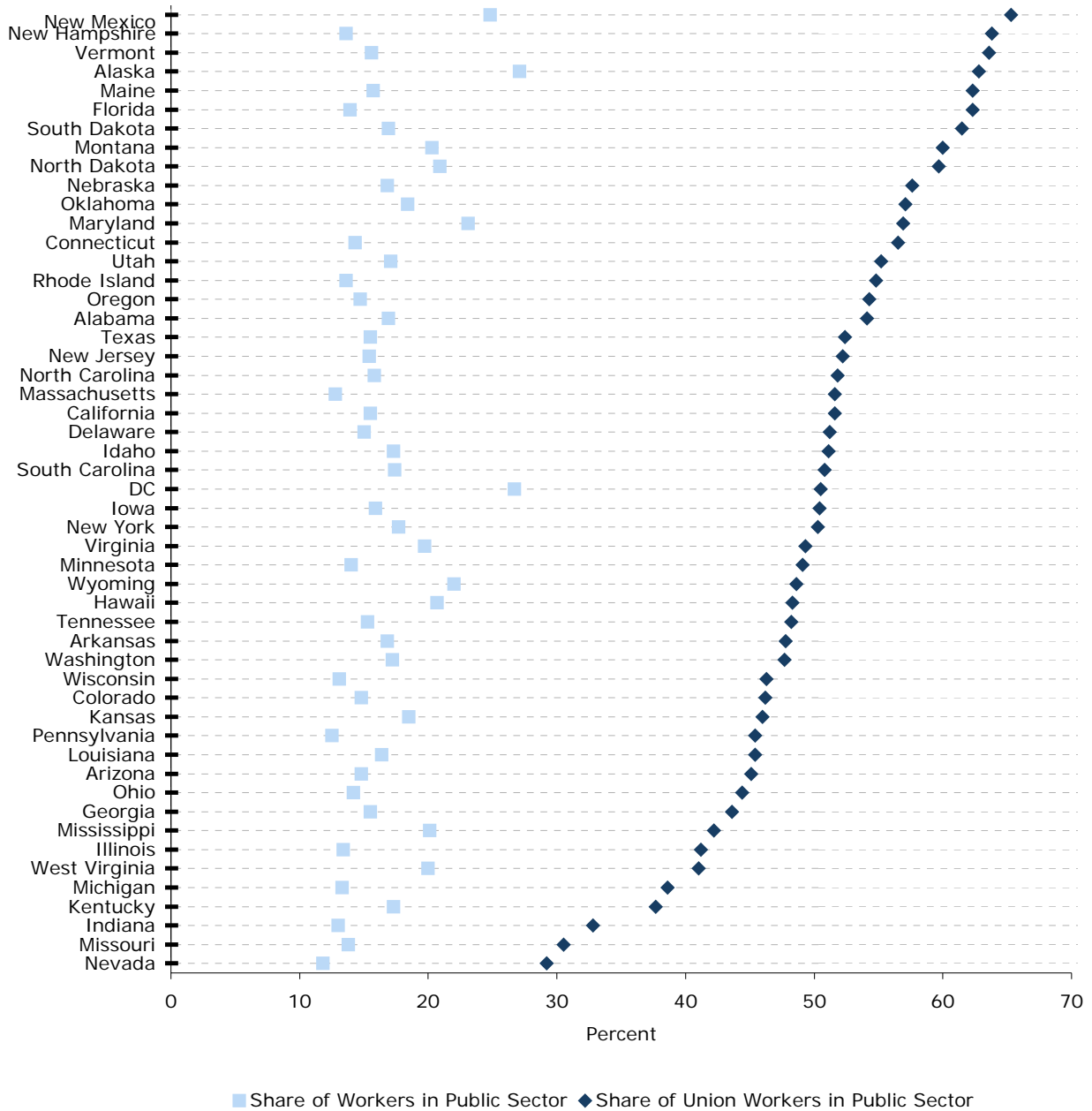
FIGURE 4
Share of Workers in Public Sector and Share of Public Sector Workers in Unions, 2003-2009
The share of each state's employees that are in the public sector varies between about 10 and 20 percent. But, the share of all unionized workers that are in the public sector varies from under 30 percent to over 60 percent.
Source: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group.

Union Wage and Benefit Advantage

Unionized workers typically earn substantially more than their non-union counterparts (see the first two columns of **Table 3**). Over the period 2003-2009, the average union worker earned at least $1.50 per hour more than the average non-union worker in every state but Colorado (only 22 cents

per hour more for union workers) and the District of Columbia (where union workers earned about $1.69 per hour less than non-union workers[4]). Across the 50 states and the District of Columbia, the median[5] wage advantage for union workers was $3.54 per hour (in Montana). The largest union wage advantages were in North Dakota ($5.45 per hour) and Wyoming ($6.25 per hour).

Union workers are also much more likely to have employer-provided health insurance. The third and fourth columns of Table 3 compare the share of union and non-union workers who have employer-provided health insurance where the employer pays at least part of the premiums. In every state, union workers are substantially more likely to have employer-provided health insurance than non-union workers are. The median union health-insurance advantage across the states is 24.2 percentage points (Vermont). In the District of Columbia, the state where the gap between union and non-union workers is lowest, union workers are 10.0 percentage points more likely to have health insurance than non-union workers are. Given that 69.2 percent of non-union workers in the District of Columbia have employer-provided health insurance, this 10.0 percentage-point advantage for union workers translates to a 14.5 percent higher chance of employer-provided health insurance coverage for union workers.[6] (Note that the District of Columbia is the state with the highest share of non-union workers with employer-provided health insurance.) Montana is the state where unionization makes the biggest difference to a worker's chance of having employer-provided health insurance. Being a union worker in Montana increases the chances of having employer-provided health insurance by 37.0 percentage points. Given that only 47.0 percent of non-union workers in Montana have health insurance, this means being in a union raises the chance that a worker in Montana has health insurance by 78.7 percent.

Union workers are also much more likely than non-union workers to have an employer-sponsored retirement plan.[7] Across the states, the median effect is 30.8 percentage points, in West Virginia. Once again, the District of Columbia has the smallest union advantage. Union workers there are only 11.6 percentage points more likely than non-union workers to have a retirement plan. Alabama is the state where unionization makes the biggest difference – 44.3 percentage points – with respect to having a retirement plan. Given that only 45.3 percent of non-union workers had a retirement plan in 2003-2009, this 44.3 percentage-point difference means that unionized workers in Alabama are almost twice as likely as non-union workers to have a retirement plan.

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4   The negative union premium here is the result of failing to control for worker characteristics. After controlling for worker characteristics, the union premium in the District of Columbia is positive and statistically significantly different from zero.
5   To find the median wage advantage across the states, we arrange the 51 states (including the District of Columbia) in order from the lowest union advantage (the District of Columbia, at -$1.69 per hour) to the highest union advantage (Wyoming, $6.25 per hour). The state exactly in the middle of the 51 states ordered in this way (Montana, $3.54) has the median union wage advantage across the states.
6   The union coverage rate in the District of Columbia is 79.2 percent; the non-union rate is 69.2 percent. The percentage- point difference is 79.2 -69.2 = 10.0 percentage points. The percent difference is (79.2 - 69.2) / 69.2 = 10.0 / 69.2 = 14.5 percent.
7   The Current Population Survey questions that are the basis for the analysis here do not distinguish between a traditional defined-benefit pension plan and more recent defined-contribution retirement plans such as 401(k) plans. Nor do the data indicate whether the employer makes any contribution to the retirement plan.

TABLE 3
Average Wage, Health Coverage, and Retirement Coverage, by Union Status, by State, 2003-09

	Average hourly wage (2009$)		Health insurance (percent)		Retirement plan (percent)	
	Non-union	Union	Non-union	Union	Non-union	Union
Alabama	17.87	21.25	57.7	85.0	45.3	89.6
Alaska	21.14	25.98	50.7	81.6	43.2	82.4
Arizona	19.26	23.82	56.3	78.5	40.5	68.7
Arkansas	16.53	20.09	52.7	67.8	43.4	74.2
California	21.70	25.88	53.0	79.3	38.2	74.9
Colorado	21.84	22.06	57.2	75.5	46.0	68.9
Connecticut	23.64	26.52	56.2	86.7	47.9	80.8
DC	26.68	24.99	69.2	79.2	55.9	67.5
Delaware	20.42	23.84	61.2	80.3	48.8	74.1
Florida	19.13	23.39	55.0	80.6	38.8	70.4
Georgia	19.56	23.00	57.7	75.2	44.5	73.6
Hawaii	19.04	22.15	66.0	84.2	45.9	72.2
Idaho	17.38	21.76	55.6	79.4	46.8	79.8
Illinois	20.37	23.09	56.5	77.8	46.2	72.5
Indiana	18.46	22.68	57.9	84.0	54.2	79.6
Iowa	17.67	20.83	58.7	83.8	53.1	83.3
Kansas	18.08	22.95	57.8	83.3	48.7	84.2
Kentucky	17.46	20.77	60.4	73.6	46.3	71.3
Louisiana	17.97	20.71	52.4	80.6	41.0	77.3
Maine	17.87	21.75	55.0	84.2	43.8	81.2
Maryland	23.59	25.22	55.9	77.0	50.1	77.8
Massachusetts	23.42	25.58	51.5	80.5	44.3	76.4
Michigan	19.79	22.89	54.2	79.1	45.5	77.3
Minnesota	20.89	24.04	57.3	77.6	50.0	82.5
Mississippi	16.65	20.08	60.5	77.2	51.2	79.9
Missouri	18.42	22.30	58.5	77.9	48.5	77.3
Montana	15.89	19.43	47.0	84.0	39.7	83.8
Nebraska	17.34	21.49	52.7	81.9	50.7	80.0
Nevada	18.92	22.27	62.9	85.4	40.3	71.1
New Hampshire	21.57	23.74	57.2	78.4	49.9	78.8
New Jersey	23.66	26.20	54.0	83.0	44.6	81.3
New Mexico	18.46	21.52	48.8	68.8	43.4	80.3
New York	21.02	24.22	53.6	80.1	40.0	72.7
North Carolina	18.47	22.82	57.8	73.5	42.4	59.6
North Dakota	16.32	21.77	58.0	84.3	54.6	93.4
Ohio	18.31	21.89	56.1	82.9	49.2	75.4
Oklahoma	17.31	21.07	53.6	75.5	46.6	85.8
Oregon	19.15	21.85	55.7	80.7	46.8	81.1
Pennsylvania	19.28	22.04	59.8	82.0	49.0	77.2
Rhode Island	19.94	24.77	57.4	78.0	44.1	78.5
South Carolina	17.75	21.39	55.7	80.5	45.1	70.7
South Dakota	16.33	20.20	54.6	80.6	46.1	83.6
Tennessee	17.87	21.62	58.0	91.1	46.5	71.0
Texas	18.39	22.13	53.1	74.5	43.6	72.6
Utah	18.26	22.15	55.8	83.9	45.0	80.4
Vermont	18.82	22.65	55.7	79.9	48.8	82.1
Virginia	21.72	25.24	56.2	75.4	50.2	73.0
Washington	21.20	24.25	61.3	81.7	48.0	78.6
West Virginia	17.13	21.83	54.1	76.5	46.7	74.1
Wisconsin	18.46	22.13	56.1	82.8	52.3	80.3
Wyoming	17.61	23.86	53.3	85.2	47.3	84.6
United States	**19.77**	**23.64**	**55.8**	**80.1**	**45.0**	**76.0**

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group for wage data and March CPS for health and retirement coverage. Health and retirement data refer to 2002-2008.

Regression-controlled Union Wage and Benefit Advantage

The data in Table 3 may overstate the union effect on wages and benefits because, as we saw in Tables 1 and 2, union workers are more likely to have characteristics associated with higher wages including higher levels of formal education and a greater likelihood of being employed in higher-wage industries, factors that raise the wages of all workers, union and non-union alike.[8] In **Table 4**, therefore, we present a second set of results using standard regression techniques to control for systematic differences in the union and non-union workforces.[9] Controlling for these other effects reduces the union wage and benefit effect, but it still remains large in almost every state.

The first column in Table 4 shows the union wage premium in each state after controlling for workers' age, education, gender, and industry. Even after taking these other factors into account, unionized workers across the states, on average, earn between 5 (New Hampshire) and 23 (West Virginia) percent more than non-union workers. The union effect in the median state (Tennessee) is 14.9 percent (just over $2.50 per hour[10]), and lies between 10 and 20 percent in 33 states.

The second column in Table 4 reports estimates of the regression-controlled effect (in percentage points) of unions on employer-provided health-insurance coverage in each state.[11] The union effect is positive in all cases, but not statistically significant for Arkansas, Arizona, Mississippi, and Oklahoma. Among the remaining 46 states with a statistically significant union impact on health insurance, the effect ranges from about 9 percentage points in Georgia and Kentucky to 30 percentage points or more in Connecticut and Tennessee. The median union effect on health-insurance coverage is about 19 percentage points.[12]

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8   Union workers are also significantly older than non-union workers. For a review of trends in union demographics over the last quarter century, see John Schmitt and Kris Warner, "The Changing Face of Labor, 1983-2008," Center for Economic and Policy Research Briefing Paper, November 2009.

9   The regressions control for age (and age squared), education (five levels of educational attainment), gender, and two-digit industry of employment. The wage regressions use ordinary least squares; the health insurance and pension regressions are probits. All regressions use robust standard errors.

10 Calculated as 0.149 times $17.87 per hour, which is the average non-union wage in Tennessee, which equals $2.66 per hour.

11 Reporting the union effect in percentage-point terms puts the estimated effect on a comparable basis across all the states. To convert these (roughly) to percent effects within a given state, take the estimated percentage-point effect in Table 4 and compare it to the corresponding non-union coverage rate in Table 3. Note that comparing the union effects in percent terms – that is, relative to the size of the non-union population in each state – rather than in percentage-point terms can make comparisons more difficult. For example, unionization could raise the likelihood that a worker has health insurance by 10 percentage-points in two different states. If non-union workers in one state have a 40 percent chance of having health insurance, this 10-percentage-point effect would raise the likelihood of having health insurance by (roughly) 25 percent (10.0/40.0). In a different state, where 50 percent of non-union workers had health insurance, the same 10-percentage-point union effect would only raise the likelihood of having health insurance by 20 percent (10.0/50.0). The calculations are only approximate because the union premium is evaluated at the average characteristics for the entire sample, including union and non-union workers, not at the average characteristics for the non-union workers.

12 Estimates are not available for the District of Columbia. The median of the remaining 50 states is the average of the middle two states (Pennsylvania at 18.7 percentage points and Vermont at 19.4 percentage points).

The union impact on retirement plans is even larger. The last column of Table 4 shows the regression-controlled union advantage (again, in percentage-point terms) with respect to employer-sponsored retirement plans. The union effect is statistically significant in 49 of the 50 states (no estimates are available for the District of Columbia), and ranges from 13.8 percentage points in Arizona to 36.4 percentage points in North Dakota. The median impact across the states is about 24 percentage points (in Minnesota and Washington, both at 24.3 percentage points).

TABLE 4
Regression-adjusted Union Wage, Health, and Retirement Premiums, by State, 2003-09

	Hourly wage (percent)	Health-insurance coverage (percentage point)	Retirement plan (percentage point)
Alabama	13.0	22.1	36.1
Alaska	9.9	23.7	30.4
Arizona	12.0	*9.6*	13.8
Arkansas	16.1	*5.0*	23.6
California	20.6	23.0	29.1
Colorado	5.2	18.4	23.4
Connecticut	15.1	30.4	26.8
DC	8.1	n.a.	n.a.
Delaware	17.8	15.0	18.9
Florida	17.6	19.4	19.6
Georgia	13.1	8.6	21.4
Hawaii	13.4	15.1	17.7
Idaho	16.7	18.1	31.7
Illinois	17.7	20.4	22.0
Indiana	18.0	27.4	21.0
Iowa	12.2	21.4	22.5
Kansas	18.4	21.8	30.7
Kentucky	15.3	9.1	19.5
Louisiana	13.6	21.8	27.6
Maine	8.9	22.7	26.8
Maryland	13.1	18.0	24.6
Massachusetts	11.5	26.5	25.2
Michigan	18.8	20.4	25.4
Minnesota	12.8	15.3	24.3
Mississippi	13.8	*10.1*	20.2
Missouri	20.2	16.5	24.7
Montana	13.0	29.7	34.1
Nebraska	13.8	23.9	23.6
Nevada	19.2	26.1	32.5
New Hampshire	5.1	15.8	20.0
New Jersey	20.9	29.4	34.0
New Mexico	15.8	15.2	33.7
New York	20.3	25.0	27.5
North Carolina	14.8	12.3	*10.7*
North Dakota	17.8	21.4	36.4
Ohio	18.4	25.4	20.9
Oklahoma	17.2	*11.3*	30.4
Oregon	10.9	17.1	24.0
Pennsylvania	15.3	18.7	20.2
Rhode Island	19.7	14.3	27.9
South Carolina	9.2	17.8	14.9
South Dakota	14.5	13.7	25.0
Tennessee	14.9	32.9	15.7
Texas	16.6	15.4	21.8
Utah	13.4	21.0	26.9
Vermont	7.9	19.4	27.5
Virginia	15.4	14.9	18.8
Washington	11.0	17.2	24.3
West Virginia	22.8	14.5	21.7
Wisconsin	14.9	23.5	21.7
Wyoming	21.6	29.1	28.6
United States	**15.6**	**19.1**	**24.4**

Notes: Author's analysis of 2003-2009 CPS ORG and March CPS. All regressions use robust standard errors and control for gender, age, race, education, industry, and year. Wage equations estimated using OLS; health and retirement equations are probits. All estimates statistically significant at at least the 5% level, except when italicized.

Conclusion

The most recent available data show that even after controlling for differences between union and non-union workers – including such factors as age and education level – unionization substantially improves the pay or benefits of workers in every state. In the typical state, unionization is associated with about a 15 percent increase in hourly wages (roughly $2.50 per hour), a 19-percentage-point increase in employer-provided health insurance, and a 24-percentage-point increase in employer-sponsored retirement plans.

These findings demonstrate that, across the states, workers who are able to bargain collectively earn more and are more likely to have benefits associated with good jobs. Taken together these data strongly suggest that better protection of workers' right to unionize would have a substantial positive impact on the pay and benefits workers in every state.[13]

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[13] For recent discussions of the benefits for workers and for overall economic inequality of unionization, see: Blanchflower and Bryson (2007, cited above); Richard Freeman, "What Do Unions Do? The 2004 M-Brane Stringtwister Edition," in James Bennett and Bruce Kaufman (eds.), *What Do Unions Do: A Twenty Year Perspective*, Edison, New Jersey: Transaction Publishers, 2007; Frank Levy and Peter Temin, "Inequality and Institutions in Twentieth Century America," NBER Working Paper 07-17, 2007; Lawrence Mishel, Jared Bernstein, and Heidi Shierholz, *The State of Working America 2008-2009*. Ithaca, New York: Cornell University Press, 2009; and John Schmitt, "The Union Wage Advantage for Low-Wage Workers," CEPR Briefing Paper, 2008.

Data Appendix

In order to have a sample that is sufficiently large to analyze the unionized workforce in every state, our analysis combines data from multiple years of the Current Population Survey (CPS), a nationally representative monthly survey of about 60,000 households. For wage-related data, we use the 2003 to 2009 merged CPS Outgoing Rotation Group (ORG) files, which are comprised of one-forth of the respondents to each month's full CPS. The ORG includes a series of questions about respondents' current job, including their earnings and their union status. For health- and pension-related data, we use the March supplement to the CPS for the years 2003 to 2009. The March CPS survey asks respondents about their health- and pension-coverage in the preceding calendar year, so the health and pension data in the report refers to coverage during the calendar years 2002 through 2008. Changes to industry, occupation, and race variables before 2003 make it impossible to perform the regression controls in Table 4 on a consistent basis if we include earlier data.

Hourly wage

The earnings data are hourly wages taken directly from reported hourly earnings or are estimated based on reported weekly earnings (including overtime, tips, commissions, and bonuses) and usual weekly hours. Following Hirsch and Schumacher (2004), for the wage analysis only, we exclude all observations where the Census Bureau has imputed wages; this eliminates 25-30 percent of the CPS ORG sample in each year, but removes a significant source of downward bias in the raw and regression-based estimates of the union wage premium.[14]

Health

The March CPS asks whether an individual was covered by an employer-provided health-insurance plan and, if so, whether the employer paid all, part, or none of the premiums for that plan. We treat workers as having health-insurance coverage if their employer (or union) offered a plan and the employer paid at least part of the premiums associated with the plan. Respondents answer the health-coverage question in March of each year, but their response refers to their coverage status in the preceding calendar year.

Pension

The March CPS asks whether an individual's employer participated in an employer-sponsored retirement plan. The survey does not distinguish between defined-contribution and defined-benefit plans and does not ask if the employer makes a contribution to the plan. We treat workers as having a retirement plan if their employer offered a plan of any kind, whether or not the employer made a contribution to that plan. As with health-insurance coverage, respondents answer the pension question in March of each year, but their response refers to their coverage status in the preceding calendar year.

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14 Barry Hirsch and Edward Schumacher ("Match Bias in Wage Gap Estimates Due to Earnings Imputation,"
    Journal of Labor Economics, vol. 22 (2004), no. 3 (July), pp. 689-722.

Union

The CPS ORG asks workers if they are a member of, or represented by, a union at their current job. We define a union worker as any worker who says that he or she is a member of, or represented by, a union. The March CPS does not ask workers about their union status during the preceding calendar year. We, therefore, use workers' union status in their current job in March of each year, as reported in the CPS ORG, as a proxy for their union status in the preceding calendar year. Using workers' status in March has two drawbacks for our analysis. First, since we must rely on union status in March, we are limited to only one-fourth of the full March CPS sample – the fourth of the full monthly sample that also participated in the ORG in that month. The smaller sample reduces the precision of our estimates of the union effect on health and pension, making it more difficult for us to find a statistically significant union effect if one exists. Second, using union status in March as a proxy for union status in the preceding year introduces measurement error into the union variable in the health and pension regressions. This measurement error will bias the coefficient of the variable measured with error toward zero, making it less likely that we will find a statistically significant union effect if there is one.

Race and Ethnicity

We define five mutually exclusive racial and ethnic categories: whites, blacks, Latinos, Asian Pacific Americans (APA), and all other racial and ethnic groups. Latinos may be of any race. Full coding details available by request or at http://www.ceprdata.org.

APPENDIX TABLE
Union Sample-sizes for Regressions in Table 4, by State

	Wage	Health-insurance	Retirement
Alabama	943	163	163
Alaska	3,017	388	388
Arizona	851	106	106
Arkansas	582	65	65
California	11,629	1,479	1,479
Colorado	1,941	245	245
Connecticut	2,911	439	439
DC	1,463	--	--
Delaware	1,443	227	227
Florida	2,266	344	344
Georgia	835	141	141
Hawaii	2,793	396	396
Idaho	854	92	92
Illinois	4,325	672	672
Indiana	1,712	307	307
Iowa	2,488	292	292
Kansas	1,498	191	191
Kentucky	1,361	192	192
Louisiana	535	99	99
Maine	2,444	285	285
Maryland	2,703	365	365
Massachusetts	2,003	291	291
Michigan	3,893	633	633
Minnesota	3,999	495	495
Mississippi	524	90	90
Missouri	1,793	250	250
Montana	1,483	131	131
Nebraska	1,736	183	183
Nevada	2,553	341	341
New Hampshire	2,311	293	293
New Jersey	3,441	566	566
New Mexico	1,020	120	120
New York	8,284	1,340	1,340
North Carolina	640	83	83
North Dakota	1,158	133	133
Ohio	4,111	599	599
Oklahoma	816	96	96
Oregon	2,077	248	248
Pennsylvania	4,243	644	644
Rhode Island	2,563	357	357
South Carolina	526	91	91
South Dakota	1,183	116	116
Tennessee	747	113	113
Texas	2,587	312	312
Utah	893	120	120
Vermont	1,801	238	238
Virginia	1,017	142	142
Washington	3,489	424	424
West Virginia	1,215	221	221
Wisconsin	3,088	359	359
Wyoming	1,335	143	143

Notes: Author's analysis of 2003-2009 Current Population Survey Outgoing Rotation Group and March CPS. See text and data appendix for details.