
Trends in National and Regional Unionization Rates and in Union Versus Nonunion Wages

National Trends in Unionization

Tables 2.1 and 2.2 indicate the key national trends in union membership between 1977 and 1997. As table 2.1 shows, the proportion of all workers who were union members fell sharply, from 25.0 percent in 1977 to 13.8 percent by 1997, with two-thirds of this decline taking place in the 1977–87 decade. The proportion of unionized workers fell in all three major industry groupings: primary products and construction, manufacturing, and the services sectors.¹ A further indication of the pervasiveness of the decline across the 137 industries in the data set is that the rate of unionization declined in all 7 primary-product and construction sectors between 1977 and 1997, in 73 of the 74 manufacturing sectors, and in all but 10 of the 56 services sectors. Among the three broad sectoral groups, manufacturing was the most heavily unionized throughout the period, followed by primary industries and construction and by the services sectors. However, unionization declined the most in relative terms in manufacturing, falling by more than half, from 38.0 percent in 1977 to 17.6 percent in 1997. Consequently, by 1997 the proportion of unionized workers in manufacturing was little more than 1 percentage point higher than in primary products plus construction, with services not far behind.

An important exception to the downward trend in unionization occurred in the public sector of the US economy. Among the 8.6 million

1. In absolute terms, union membership fell by 2.7 million between 1977 and 1987 and by 1.2 million between 1987 and 1997.

Table 2.1 Proportion of unionized workers by product sector and educational level, 1977–97 (percent)

Sector and education	1977	1987	1997
All unionized workers			
All sectors	25.0	17.5	13.8
Manufacturing	38.0	24.8	17.6
Services sectors	20.2	15.6	12.7
Primary industries and construction	26.9	18.3	16.3
Unionized workers with 12 or fewer years of education			
All sectors	28.5	19.3	14.3
Manufacturing	42.9	29.9	21.2
Services sectors	22.2	15.9	12.2
Primary industries and construction	28.1	19.1	15.1
Unionized workers with 13 or more years of education			
All sectors	18.6	15.3	13.4
Manufacturing	22.8	15.3	12.9
Services sectors	17.3	15.3	13.1
Primary industries and construction	22.9	16.2	18.7
All unionized workers in selected sectors			
1997 net importing sectors	33.0	20.1	13.8
1997 net exporting sectors	22.8	15.0	11.9
Apparel and accessories (except knits)	27.6	20.5	10.1
Blast furnaces, steelworks, rolling and finishing mills	77.4	56.7	46.2
Computers and related equipment	6.7	3.2	2.2
Eating and drinking places	8.6	3.1	2.4
Public administration	33.3	39.1	36.9

Source: Author's calculations.

individuals employed in public administration in 1997, for example, the unionization rate was 36.9 percent, as compared with 33.3 percent in 1977. In addition, unionization in such public-service areas as elementary and secondary schools and the US Postal Service remained steady during the period, at about 48 and 82 percent, respectively. (The unionization rates for these two sectors are not reported separately in table 2.1.) However, the share of unionized workers in most private-sector service areas fell sharply. The unionized proportion in eating and drinking places fell from 8.6 percent in 1977 to only 2.4 percent in 1997, for example.²

2. Labor economists, e.g., Freeman (1988), attribute the rise in unionization in the public sector to such factors as reduced management opposition owing to the passage of comprehensive collective bargaining laws and vote-seeking behavior by politicians.

Table 2.2 Distribution of unionized workers across product sectors and educational levels, 1977–97 (percent)

Sector and education	1977	1987	1997
Unionized workers			
Primary products and construction	12.1	11.1	11.2
Manufacturing	34.9	25.2	20.0
Services	53.0	63.7	68.8
Unionized workers			
With 12 or fewer years of education	73.8	60.1	48.0
With 13 or more years of education	26.2	39.9	52.0
Unionized workers with 12 or fewer years of education			
Primary products and construction	13.3	13.9	14.4
Manufacturing	40.3	32.9	28.2
Services	46.4	53.2	57.4
Unionized workers with 13 or more years of education			
Primary products and construction	9.0	6.7	8.2
Manufacturing	19.6	13.7	12.3
Services	71.4	79.6	79.5

Source: Author's calculations.

Not only were variations in unionization rates significant among broad groups of industries in the 1970s, but differences in unionization rates between basically educated and more-educated workers—that is, unionized workers with 12 or fewer years of education (i.e., basically educated) and unionized workers with 13 or more years of education (i.e., more-educated), respectively—were also large in this period. Whereas 28.5 percent of the first group were union members in 1977, only 18.6 percent of the more-educated group were unionized in that year. As in the case of differences in unionization rates among broad industrial categories, this difference between workers with different levels of schooling narrowed considerably by 1997, with the unionization share of basically educated workers falling to 14.3 percent and the proportion of more-educated union members declining only to 13.4 percent.³ Because of the rapid rise in the number of more-educated workers over the period and the sharp fall in the number of basically educated workers, by 1997 the number of more-educated unionized workers exceeded the number of basically educated ones by 0.6 million.

3. The number of unionized workers with 12 or fewer years of education declined during the entire period by 7.1 million, or by 48 percent. In contrast, the number of unionized workers with 13 or more years of education rose during the period by 3.1 million, or by 59 percent.

Table 2.1 also indicates rates of unionization between 1977 and 1997 in the goods and services industries that in 1997 were either net importing or net exporting sectors. As the table shows, the 1977 unionization rate of 33.0 percent for net importing industries was more than 10 percentage points higher than in net exporting industries in 1977. The rate of unionization fell significantly in both categories between 1977 and 1997, though slightly more in the net importing sectors.⁴

Table 2.2 shows the distribution of union workers across product groups and by levels of education. It indicates, for example, that in 1997 only 20.0 percent of all union workers were employed in manufacturing activities, compared with 34.9 percent in 1977. The proportion of all union workers employed in the service sectors rose from 53.0 percent in 1977 to 68.8 percent in 1997. Another important relationship brought out in table 2.2 is the rapid rise in the proportion of more-educated union workers. In 1997, 52.0 percent of unionized workers had received 13 or more years of education, compared with only 26.2 percent in 1977. As the other two parts of the table also make clear, the share of basically educated workers employed in manufacturing was greater than the share of more-educated workers. The reverse was the case for the services industries.

Regional Trends in Unionization

Not only did the rate of unionization in manufacturing fall significantly for the country as a whole between 1977 and 1997, but it also fell sharply within each region of the country, as table 2.3 indicates.⁵ Unionization in the manufacturing sector decreased between these years by 50 percent or more in seven of the nine regional groups of states and by more than 60 percent in the two far western regions. The extent of unionization also varies widely among regions, as it does among industries. In 1977, the proportion of unionized workers in the most unionized region, the Upper Midwest (region 5), was almost two and a half times as large as in the least unionized region, the South (region 4), and the ratio was even larger in 1997.

Trends in the Earnings of Union Relative to Nonunion Workers

Given the dramatic decline in the rate of US unionization in the last quarter of the 20th century, the behavior of the wages of union versus

4. The unionization rate in those industries in which there was no trade at all in 1997 was 14 percent.

5. It was not always possible to follow conventional regional breakdowns owing to the need to obtain an adequate sample size of union workers for each region.

Table 2.3 Proportion of unionized workers in manufacturing by region and year, 1977–97 (percent)

Region	1977	1987	1997
1. New England	29.2	18.2	12.4
2. New York and New Jersey	44.8	27.9	22.5
3. Pennsylvania, Delaware, Maryland, Virginia, and West Virginia	47.5	30.7	21.8
4. North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, and Kentucky	21.2	13.0	9.5
5. Ohio, Indiana, Illinois, Michigan, Wisconsin, and Minnesota	52.0	35.7	25.7
6. Louisiana, Texas, Arkansas, Oklahoma, and New Mexico	27.6	17.9	12.3
7. Missouri, Iowa, Nebraska, Kansas, North Dakota, South Dakota, Montana, Wyoming, Utah, and Colorado	34.9	21.7	17.1
8. California, Nevada, Arizona, and Hawaii	30.7	18.2	10.5
9. Oregon, Washington, Idaho, and Alaska	46.7	29.2	18.6

Source: Author's calculations.

nonunion workers during the period is of particular interest. Table 2.4 presents information on this issue. It shows, first, that unionized workers earn considerably more than do nonunion workers. Average real weekly earnings for union workers fell slightly between 1977 and 1997, however, whereas the earnings of nonunion workers rose somewhat. This means that the union/nonunion earnings ratio of 1.40 (a 40 percent wage premium for union workers) for all workers in 1977 fell modestly to 1.32 by 1997.⁶ For workers in the manufacturing sector, the union wage premium was considerably lower than for all workers: only 19 percent in 1977 and 16 percent in 1997. The greatest earnings gap among the three broad industry groups is in primary products and construction, followed by the services sectors.⁷

Table 2.4 also provides information on the premium earned by union versus nonunion workers for basically educated ones compared with those educated beyond the high school level. One difference between the two groups that stands out for the all-sectors category is the considerably higher ratio of weekly earnings of union members relative to nonunion

6. Each industry's earnings ratio for a particular group of workers is weighted by the employment of that group in the industry.

7. The high ratio in the primary-production and construction group is due to the high union wage premium in mining, in oil and gas extraction, and in the construction sector.

Table 2.4 Earning levels and ratios of union and nonunion workers by sector and educational level, 1977–97

Levels or ratios	1977	1987	1997
Weekly earnings (1983 dollars)			
Union workers	552.69	556.45	546.96
Nonunion workers	393.76	402.62	413.86
Union/nonunion earnings ratio			
All sectors	1.40	1.38	1.32
Manufacturing	1.19	1.14	1.16
Services sectors	1.40	1.40	1.31
Primary industries and construction	1.87	1.72	1.69
Union/nonunion earnings ratio for workers with 12 or fewer years of education			
All sectors	1.58	1.60	1.51
Manufacturing	1.34	1.36	1.38
Services sectors	1.59	1.59	1.45
Primary industries and construction	1.97	1.92	1.80
Union/nonunion earnings ratio for workers with 13 or more years of education			
All sectors	1.18	1.18	1.19
Manufacturing	0.92	0.93	0.99
Services sectors	1.19	1.21	1.20
Primary industries and construction	1.55	1.45	1.39
Union/nonunion earnings ratio in selected sectors			
1997 net importing sectors in manufacturing	1.21	1.16	1.18
1997 net exporting sectors in manufacturing	1.14	1.11	1.12
Union 1997 net exporting/union 1997 net importing	1.07	1.08	1.04
Nonunion 1997 net exporting/nonunion 1997 net importing	1.14	1.13	1.12

Source: Author's calculations.

workers among basically educated individuals than among more-educated ones. The all-sectors ratio for each of these education groups is comparatively stable over time, however, with the union earnings premium for basically educated workers falling from 58 percent in 1977 to 51 percent in 1997 and the premium for more-educated workers actually rising from 18 percent to 19 percent. The rank order of the ratios among broad industry groups for both education groups is the same as for all workers combined.

The level and change over time in the union/nonunion earnings ratio in the manufacturing sector are of particular interest. Although the earnings of basically educated union workers in this sector were more than 30 percent higher than the earnings of basically educated nonunion workers throughout the period, more-educated union workers in manufacturing

actually earned slightly less than more-educated nonunion workers. The importance of the shift in the composition of the workforce toward more-educated workers in affecting the union/nonunion earnings ratio for all workers is also brought out clearly in the manufacturing sector. The union/nonunion earnings ratio in manufacturing rose somewhat for both the basically educated and more-educated groups separately, whereas this ratio actually fell slightly between 1977 and 1997 for the two groups combined.

Such an outcome is possible because the ratio for both groups is a weighted average of the ratios for the two education groups separately, where the weights are the proportions of workers in each education group. The increased weight given to the more-educated group in 1997 than in 1977 (55.0 percent compared with 37.1 percent), coupled with the much lower union/nonunion earnings ratio for the more-educated groups, caused the ratio for both groups combined to decline between these years.⁸

A final set of statistics in table 2.4 relates to the earnings of union versus nonunion workers in net importing and net exporting industries. Industries are first divided into those with a net import surplus in 1997 and those with a net export surplus in that year. The ratio of union to nonunion earnings is calculated not only for these industries in 1997 but also for the same industries in 1987 and 1977.

As the numbers indicate, union workers earn a premium over nonunion workers in both the net exporting and net importing industries during the entire period; but this premium declined between 1977 and 1997. However, throughout this period, the earnings ratio of union to nonunion workers remained higher in net importing manufacturing industries than in net exporting manufacturing sectors. Another relationship confirmed in table 2.4 is that both union and nonunion workers earned more in net exporting than in net importing sectors (see the bottom two rows).

8. Regressing relative industry changes in the ratio of average weekly wages of union members to nonunion employees on relative industry changes in shipments, imports, exports, and the industry level of the ratio at the beginning of each period yields a statistically negative coefficient for the initial level of the ratio but insignificant coefficients for the other variables.