From John Burton's Workers' Compensation Resources

WORKERS' COMPENSATION POLICY REVIEW

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In This Issue:

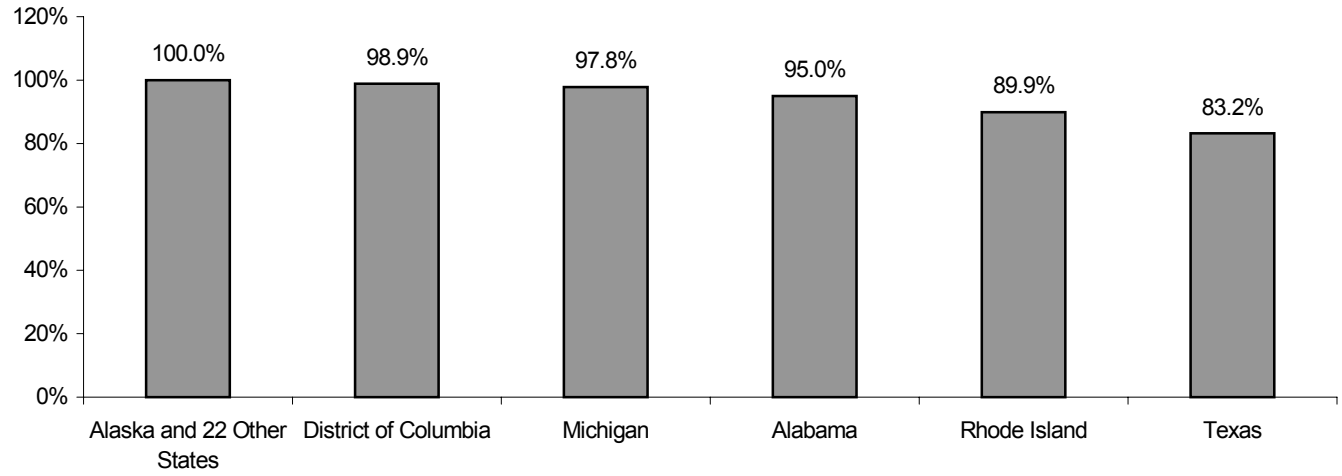
FEATURED TOPICS

Summary of the Contents

State and federal workers' compensation laws cover most workers. Thompson, Reno, Mont, Burton, and Thomason present the National Academy on Social Insurance estimate that 97.7 percent of all U.S. workers covered by unemployment insurance programs have workers' compensation protection. There are, however, some states that exempt employers with only a few employees, or farm workers, or state and local government employees. As shown in Figure A, Alaska and twenty-two other states have none of these exemptions and thus workers' compensation covers 100 percent of the employees. Eight jurisdictions, including the District of Columbia, exempt certain categories of public employees. Fourteen states, including Michigan, exempt small firms. Sixteen states exclude some or all farm workers, including Alabama, which also has a numerical exemption. Rhode Island exempts small firms, farm workers, as well as some public employees. Texas is the only state in which workers' compensation coverage is elective for employers, and only 83.2 percent of Texas workers are covered by workers' compensation.

The employers' costs of workers' compensation vary among industries, regions, occupation, and other categories of workers defined by employer or worker characteristics. Blum and Burton analyze these cost differences using 2002 data from the Bureau of Labor Statistics. They find, for example, that workers' compensation costs vary from 1.63 percent of payroll in the service-producing sector to 3.01 percent in the goods-producing sector. They estimate that workers' compensation costs represent about 5 percent of payroll in mining and construction, reflecting the hazardous nature of those industries.

Figure A - Workers' Compensation Coverage of Employees, 2000



Source: Table 1 of Thompson, Reno, Mont, Burton and Thomason article in this issue, p. 14.

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Workers' Compensation Costs In 2002: Regional, Industrial, and Other Variations

by Florence Blum and John F. Burton, Jr.

The employers' costs of workers' compensation vary among industries and regions, according to March 2002 data published by the Bureau of Labor Statistics (BLS), which is part of the U.S. Department of Labor. The BLS data also indicate that workers' compensation costs differ by occupation, by establishment size, and by union-nonunion status. Though many of these variations are not surprising, some of the patterns evident in the data are unexpected.

The BLS data used in this article provide information on the employers' costs per hour worked for wages and salaries and for benefits (including workers' compensation and other legally required benefits) for a sample of 7,200 establishments in the private sector and 800 establishments in the state and local government sector.

Cost Differences by Region

Workers' compensation costs as a percentage of wages and salaries are shown for four regions and the United States in Figure A. Employers' workers' compensation costs are above the national average in one region, are below the national average in two regions, and equal to the national average in the other region. What is surprising is the ranking of the regions, and in particular the finding that the Northeast is the region with the lowest workers' compensation costs (as a percentage of gross earnings).

The derivation of the national and regional figures shown in Figure A helps explain these findings. The BLS data used to construct Figure A are shown in Table 1. *Total remuneration* per hour worked averaged $21.71 for employers in private industry throughout the United States in March 2002 (row 1). The $21.71 of total remuneration includes *gross earnings* that averaged $17.86 per hour (row 2) and *benefits other than pay* that averaged $3.86 per hour (row 6).

The gross earnings figure includes wages and salaries as well as paid leave and supplemental pay. The term *gross earnings* and *payroll* are used interchangeably in this article.

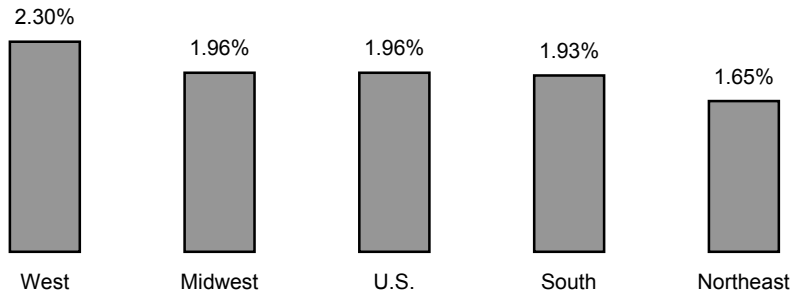
Benefits other than pay include employer contributions for insurance, retirement and savings, legally required benefits, and other benefits. *Workers' compensation*, which averaged $0.35 per hour worked (row 9A), is one of the *legally required benefits* that are included in the BLS's total figure of $1.80 per hour for that category (row 9).

We used the BLS data in rows (1), (2), and (9A) of Table 1 to compute the figures listed in rows (11) and (12) of that table. For the private sector in the United States in March 2002, workers' compensation expenditures ($0.35) were 1.61 percent of total remuneration ($21.71) and 1.96 percent of gross earnings (or payroll) ($17.86).

The same procedure used to calculate workers' compensation as a percentage of gross earnings (row 12 of Table 1) for the United States -- namely, to divide the workers' compensation expenditures per hour (row 9A) by gross earnings per hour (row 2) -- was used to calculate the regional results for workers' compensation as a percentage of gross earnings shown in Figure A and in row (12) of Table 1. Thus, for the Northeast, workers' compensation expenditures of $0.34 per hour were divided by gross earnings of $20.57 per hour to produce the figure of 1.65 percent -- which is workers' compensation costs as a percentage of gross earnings in the Northeast in March 2002.

An alternative way to measure regional differences in workers' compensation costs is shown in Figure B. Workers' compensation is measured as costs per hour worked, as shown in row (9A) of Table 1. In contrast to the results presented in Figure A -- which indicated that the Midwest had workers' compensation costs (as a percentage of gross earnings) that were **equal to** the national average, the results presented in row (9A) of Table 1 and in Figure B indicate that the Midwest's workers' compensation costs ($0.34 per hour) were **below** the national average ($0.35 per hour).

Figure A - Workers' Compensation Costs as a Percentage of Gross Earnings by Region



Source: Table 1, Row 12.

Table 1
Workers' Compensation Costs by Region in March 2002
for Employers in Private Industry
(In Dollars Per Hours Worked)

		U.S.	Northeast	South	Midwest	West
(1)	Total Remuneration	21.71	25.00	19.49	21.25	22.68
(2)	Gross Earnings	17.86	20.57	16.08	17.37	18.68
(3)	Wages and Salaries	15.80	17.97	14.34	15.29	16.68
(4)	Paid Leave	1.44	1.83	1.24	1.35	1.48
(5)	Supplemental Pay	0.62	0.77	0.50	0.73	0.52
(6)	Benefits Other Than Pay	3.86	4.44	3.40	3.88	3.99
(7)	Insurance	1.40	1.62	1.25	1.47	1.35
(8)	Retirement Benefits	0.63	0.80	0.52	0.63	0.65
(9)	Legally Required Benefits	1.80	1.98	1.61	1.75	1.97
(9A)	Workers' Compensation	(0.35)	(0.34)	(0.31)	(0.34)	(0.43)
(10)	Other Benefits	0.03	0.04	0.02	0.03	0.02
(11)	Workers' Compensation As Percentage of Remuneration	1.61%	1.36%	1.59%	1.60%	1.90%
(12)	Workers' Compensation As Percentage of Gross Earnings	1.96%	1.65%	1.93%	1.96%	2.30%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.

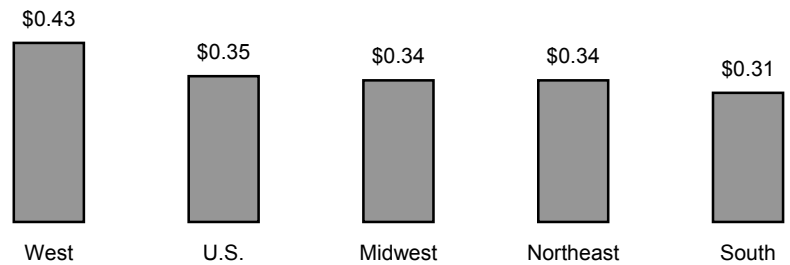
* Cost per hour worked is $0.01 or less

Source: *Employer Costs for Employee Compensation - March 2002*, News Release USDL: 02-346 (June 19, 2002), Tables 5 and 7.

Appendix A examines how the regions can switch their relative costs compared to the United States, depending on which measure of workers' compensation costs is used. That interregional differences in workers' compensation can vary depending on which measure of workers' compensation costs is used leads to an obvious question: Which is the "proper" measure that should be used to compare regions in terms of their workers' compensation costs: workers' compensation costs as a percentage of gross earnings (as shown in Figure A) or workers' compensation costs per hour worked (as shown in Figure B)?

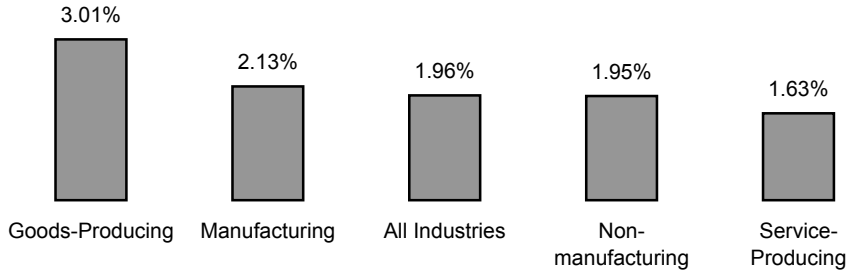
In our view, no measure of workers' compensation costs is invariably preferable for all comparisons. Rather, the choice of measurement depends on the purpose of the comparison. For example, an employer seeking a state or region with the least expensive operating environment may decide that workers' compensation costs per hour is the best measure of costs. In contrast, a policymaker concerned about adequacy of benefits may decide that workers' compensation costs as a percentage of payroll is the best measure. In the remainder of this article, we confine our discussion to workers' compensation costs as a percentage of gross earnings (or payroll). This format reflects the most common approach in workers' compensation studies. The reader who wishes to make comparisons in terms of workers' compensa-

Figure B - Workers' Compensation Costs as Employer Expenditures per Hour Worked by Region



Source: Table 1, Row 9A.

Figure C - Workers' Compensation Costs as a Percentage of Gross Earnings by Major Industry Group



Source: Table 2, Row 12.

tion costs per hour will be able to do so, however, because hourly cost data are also presented in all of the tables in this article.

Cost Differences by Industry

The BLS data for March 2002 also reveal that employers' costs of workers' compensation as a percentage of gross earnings vary among major industry groups in the private sector (*see* Figure C and row 12 of Table 2). The national average for employers' workers' compensation costs was 1.96 percent of gross earnings in 2002. (This all-industry average, in row 12 and the "all workers" column of Table 2, is the same as the U.S. average in Table 1.)

Workers' compensation data on industries throughout the United States can be disaggregated three ways. First, a distinction can be made between "goods-producing" industries (mining, construction, and manufacturing) and "service-producing" industries (including transportation, communication, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services). In March 2002, national workers' compensation costs were, on average, 3.01 percent of gross earnings (payroll) in the goods-producing sector and 1.63 percent of

Table 2
Workers' Compensation Costs by Major Industry Groups in March 2002
for Employers in Private Industry
(In Dollars Per Hours Worked)

		All Workers	Goods-Producing	Service-Producing	Manufacturing	NonManufacturing	Mining & Construction
(1)	Total Remuneration	21.71	25.44	20.66	25.20	21.06	26.01
(2)	Gross Earnings	17.86	20.24	17.18	20.23	17.42	20.26
(3)	Wages and Salaries	15.80	17.47	15.33	17.19	15.55	18.13
(4)	Paid Leave	1.44	1.66	1.37	1.91	1.35	1.07
(5)	Supplemental Pay	0.62	1.11	0.48	1.13	0.52	1.06
(6)	Benefits Other Than Pay	3.86	5.19	3.45	4.97	3.65	5.70
(7)	Insurance	1.40	2.01	1.22	2.11	1.27	1.77
(8)	Retirement Benefits	0.63	0.88	0.56	0.74	0.61	1.21
(9)	Legally Required Benefits	1.80	2.25	1.67	2.05	1.75	2.72
(9A)	Workers' Compensation	(0.35)	(0.61)	(0.28)	(0.43)	(0.34)	(1.03)
(10)	Other Benefits	0.03	0.05	0.02	0.07	0.02	*
(11)	Workers' Compensation Percentage of Remuneration	1.61%	2.40%	1.36%	1.71%	1.61%	3.96%
(12)	Workers' Compensation As Percentage of Gross Earnings	1.96%	3.01%	1.63%	2.13%	1.95%	5.08%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.
10. Goods-Producing includes mining, construction, and manufacturing.
11. Service-Producing includes transportation, communication, and public utilities: wholesale and retail trade; finance, insurance, and real estate; and service industries.

* Cost per hour worked is $0.01 or less

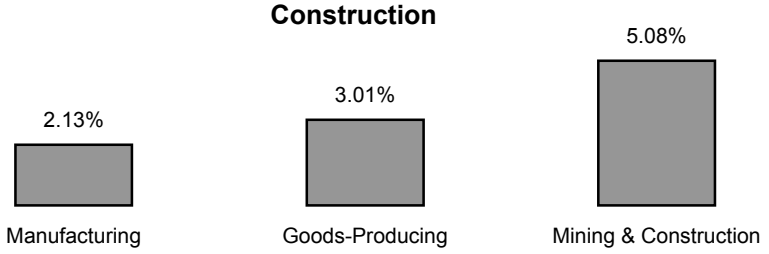
Source: *Employer Costs for Employee Compensation - March 2002*, News Release USDL: 02-346 (June 19, 2002), Table 5 for all industry groups except Mining & Construction, for which the derivation is explained in Appendix B of this article.

gross earnings (payroll) in the service-producing sector (*see* row 12 of Table 2 and Figure C).

Workers' compensation data on industries can be disaggregated a second way. A distinction can be made between manufacturing and non-manufacturing industries. In March 2002, national workers' compensation costs were, on average, 2.13 percent of gross earnings (payroll) in manufacturing and 1.95 percent of gross earnings (payroll) in the non-manufacturing sector (*see* row 12 of Table 2 and Figure C).

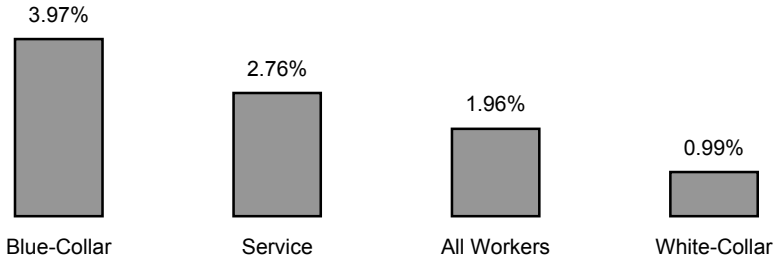
A third way to disaggregate the data on employers' costs by industry is possible. One implication of the data in Figure C is that workers' compensation costs in mining and construction are considerably higher than are workers' compensation costs in manufacturing, since workers' compensation costs for manufacturing industries alone averaged 2.13 percent of payroll, while workers' compensation costs for manufacturing in combination with mining and construction (that is, in the "goods-producing" sector) averaged 3.01 per-

Figure D - Workers' Compensation Costs as a Percentage of Gross Earnings in All Goods-Producing Industries, in Manufacturing, and in Mining & Construction



Source: Appendix Table B.1

Figure E - Workers' Compensation Costs as a Percentage of Gross Earnings by Major Occupational Group



Source: Table 3, Row 12.

Table 3
Workers' Compensation Costs by Major Occupational Groups in March 2002 for Employers in Private Industry
(In Dollars Per Hours Worked)

		All Workers	White-Collar	Blue-Collar	Service
(1)	Total Remuneration	21.71	26.43	20.15	10.95
(2)	Gross Earnings	17.86	22.14	15.88	9.07
(3)	Wages and Salaries	15.80	19.48	14.01	8.42
(4)	Paid Leave	1.44	1.97	1.13	0.46
(5)	Supplemental Pay	0.62	0.69	0.74	0.19
(6)	Benefits Other Than Pay	3.86	4.29	4.27	1.88
(7)	Insurance	1.40	1.57	1.59	0.59
(8)	Retirement Benefits	0.63	0.76	0.69	0.16
(9)	Legally Required Benefits	1.80	1.93	1.96	1.13
(9A)	Workers' Compensation	(0.35)	(0.22)	(0.63)	(0.25)
(10)	Other Benefits	0.03	0.03	0.03	*
(11)	Workers' Compensation As Percentage of Remuneration	1.61%	0.83%	3.13%	2.28%
(12)	Workers' Compensation As Percentage of Gross Earnings	1.96%	0.99%	3.97%	2.76%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.

* Cost per hour worked is $0.01 or less

Source: *Employer Costs for Employee Compensation - March 2002*, News Release USDL: 02-346 (June 19, 2002), Table 6.

Table 4
Workers' Compensation Costs by Establishment Employment Size in March 2002
for Employers in Private Industry
(In Dollars Per Hours Worked)

		All Workers	1-99 Workers	100-499 Workers	500 or More Workers
(1)	Total Remuneration	21.71	18.51	21.99	29.79
(2)	Gross Earnings	17.86	15.40	18.02	24.14
(3)	Wages and Salaries	15.80	13.88	15.87	20.79
(4)	Paid Leave	1.44	1.05	1.47	2.42
(5)	Supplemental Pay	0.62	0.47	0.68	0.93
(6)	Benefits Other Than Pay	3.86	3.09	3.97	5.65
(7)	Insurance	1.40	1.03	1.52	2.20
(8)	Retirement Benefits	0.63	0.42	0.63	1.18
(9)	Legally Required Benefits	1.80	1.64	1.80	2.19
(9A)	Workers' Compensation	(0.35)	(0.36)	(0.34)	(0.33)
(10)	Other Benefits	0.03	*	0.02	0.08
(11)	Workers' Compensation As Percentage of Remuneration	1.61%	1.94%	1.55%	1.11%
(12)	Workers' Compensation As Percentage of Gross Earnings	1.96%	2.34%	1.89%	1.37%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.

* Cost per hour worked is $0.01 or less

Source: *Employer Costs for Employee Compensation - March 2002*, News Release USDL: 02-346 (June 19, 2002), Table 8.

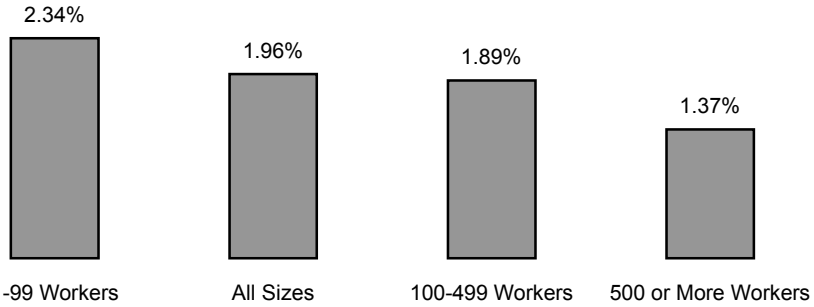
cent of gross earnings. Using a procedure explained in Appendix B, we estimate that the costs of workers' compensation benefits are $1.03 per hour in mining and construction, which represents 3.96 percent of remuneration and 5.08 percent of gross earnings (payroll) in these sectors.

The costs of workers' compensation as a percentage of gross earnings in manufacturing, in mining and construction, and in the good-producing industries are shown in Figure D. It is not possible to separate the costs of workers' compensation in the mining industry from the construction industry in the data published by the BLS. However, the construction sector accounts for virtually all of the employment (92.2 percent) of the combined total of employment in the construction and mining sectors. Thus, the high costs for the construction and mining sectors shown in Figure D and Table 2 are almost certainly due to the high costs of workers' compensation in the construction sector.

Cost Differences by Occupation

The employers' costs of workers' compensation as a percentage of payroll also vary among major occupational groups in the private sector, as shown in Figure E and in Table 3. The national average cost of employers' workers' compensation was 1.96 percent of payroll in March 2002. (*See* Table 3, row 12, "All Workers" column. The U.S. average is the same in all tables in this article.) Two occupa-

Figure F - Workers' Compensation Costs as a Percentage of Gross Earnings by Establishment Employment Size



Source: Table 4, Row 12.

Table 5
Workers' Compensation Costs by Bargaining Status in March 2002
for Employers in Private Industry
(In Dollars Per Hours Worked)

		All Workers	Union	Nonunion
(1)	Total Remuneration	21.71	29.42	20.79
(2)	Gross Earnings	17.86	22.49	17.30
(3)	Wages and Salaries	15.80	19.33	15.38
(4)	Paid Leave	1.44	2.08	1.36
(5)	Supplemental Pay	0.62	1.08	0.56
(6)	Benefits Other Than Pay	3.86	6.93	3.48
(7)	Insurance	1.40	2.76	1.23
(8)	Retirement Benefits	0.63	1.64	0.51
(9)	Legally Required Benefits	1.80	2.46	1.72
(9A)	Workers' Compensation	(0.35)	(0.65)	(0.32)
(10)	Other Benefits	0.03	0.07	0.02
(11)	Workers' Compensation As Percentage of Remuneration	1.61%	2.21%	1.54%
(12)	Workers' Compensation As Percentage of Gross Earnings	1.96%	2.89%	1.85%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.

* Cost per hour worked is $0.01 or less

Source: *Employer Costs for Employee Compensation - March 2002*, News Release USDL: 02-346 (June 19, 2002), Tables 5 and 7.

tional groups had, on average, workers' compensation costs that exceeded the national average: blue-collar workers, for whom employers' workers' compensation costs averaged 3.97 percent of payroll, and service workers, for whom employers' workers' compensation costs averaged 2.76 percent of payroll. In sharp contrast, employers' workers' compensation costs for white-collar workers were, on average, only .99 of payroll in March 2002. (*See* Table 3, row 12). These cost differences presumably reflect the differences in the number and severity of workplace injuries and diseases experienced by workers in these occupations.

Figure G - Workers' Compensation Costs as a Percentage of Gross Earnings by Bargaining Status

Source: Table 5, Row 12.

Cost Differences by Establishment Size

An establishment is defined as an economic unit that: 1) produces goods or services at a single location (such as a factory or store) and 2) is engaged in one type of economic activity. Many firms (or companies) thus consist of more than one establishment.

The BLS data on the employers' costs of workers' compensation allow comparisons among establishments of various sizes (as measured by number of employees). As shown in Figure F and in Table 4, there is a clear tendency for workers' compensation costs to decline with increasing establishment size. The national average for employers' workers' compensation costs across all establishments

was 1.96 percent of payroll. Those establishments with fewer than 100 employees had workers' compensation costs that, on average, were 2.34 percent of gross earnings in March 2002. In contrast, those establishments with 100 to 499 workers had workers' compensation costs that averaged 1.89 percent of payroll and establishments with 500 or more workers had costs that averaged 1.37 percent of payroll -- both figures are below the national (all-establishments) average.

Cost Differences by Bargaining Status

The employers' costs of workers' compensation as a percentage of gross earnings also vary between unionized and nonunionized workers, as shown in Figure G and in Table 5. The employers' costs of workers' compensation for unionized workers in March 2002 was 2.89 percent of payroll and the comparable figure for nonunionized workers was 1.85 percent. The national average (unionized and nonunionized workers) was 1.96 percent. (*See* Table 5, row 12.)

One possible explanation for these cost differences between nonunionized and unionized workers is that unions have been more successful in organizing workers in industries such as mining, construction, and manufacturing than they have been in organizing other industries that have relatively fewer workplace injuries and diseases than do the mining, construction, and manufacturing industries. Thus, the higher costs are not due to unions, but are instead a reflection of the elevated risks of workplace injuries and diseases found in the industries that unions have organized. Another possible explanation is that unions provide information and assistance to members who are injured on the job, thus increasing the likelihood that unionized members will receive workers' compensation benefits, which in turn increases the employers' costs of workers' compensation for those workers.

The information derived from the BLS data should be useful to firms trying to place their own workers' compensation costs in perspective ...

Conclusions

The employers' costs of workers' compensation measured as a percentage of payroll (or measured as costs per hour) vary systematically by region, by major industry group, by major occupational group, by establishment size, and by bargaining status. The information derived from the BLS data should be useful to firms trying to place their own workers' compensation costs in perspective and to policymakers attempting to assess the costs of the workers' compensation programs in a particular jurisdiction relative to costs elsewhere. Ideally, the BLS data will be expanded in future years to present greater detail by industry, occupation, and (in particular) by individual states.

APPENDIX A

Alternative Ways to Measure Regional Differences in Workers' Compensation Costs

This appendix examines how regions can switch their relative costs compared to the United States depending on which measure of workers' compensation costs is used. The explanation is provided by a closer examination of the arithmetic procedure used in computing workers' compensation costs as a percentage of gross earnings. The workers' compensation costs per hour (row 9A of Table 1 and Appendix Figure A1: Part I, which is the same as Figure B in the article) have to be divided by gross earnings per hour (row 2 of Table 1 and Appendix Figure A1: Part II) in order to produce the figures on workers' compensation costs as a percentage of wages and salaries (row 12 of Table 1 and Appendix Figure A1: Part III, which is the same as Figure A in the article). The relationships between these numerators and denominators for the four regions account for the fluctuations in rankings between Figure A and Figure B in the article.

Consider the Midwest. Workers' compensation costs per hour in the Midwest ($0.34 per hour) are three percent below the national average for workers' compensation costs ($0.35 per hour), and the hourly gross earnings in the Midwest ($17.37 per hour -- row 2 of Table 1) are also three percent below the national average for gross earnings ($17.86 -- row 2 of Table 1). As a result, the Midwest's workers' compensation costs as a percentage of gross earnings (1.96 percent -- or $0.34 divided by $17.37) are equal to the national average of workers' compensation costs as a percentage of gross earnings (1.96 percent -- or $0.35 divided by $17.86).

Figure A1 - Workers' Compensation Costs by Region

Source: Table 1.

APPENDIX B

Derivation of Workers' Compensation Costs in the Mining and Construction Industries

The BLS does not publish estimates of remuneration or the components of remuneration (including workers' compensation costs) for the mining and construction industries. However, rough estimates of remuneration and workers' compensation costs can be produced using the BLS data and the procedure explained in this appendix.

Table B1 contains information on remuneration that BLS publishes for the Goods Producing Major Industry Group in Rows (1) to (10) of Column (A). Similar BLS information for the Manufacturing Major Industry Group is contained in Rows (1) to (10) of Column (B) of Table B1. (These are identical to data contained in Table 2 of the article.)

The Goods-Producing Major Industry Group consists of the Manufacturing Industry, the Construction Industry, and the Mining Industry. The BLS indicates that March 2002 employment counts from the Bureau's Current Employment Statistics program are used as weights to calculate cost levels. Row (13) of Table B1 provides the employment figures for the Goods-Producing Industries, the Manufacturing Industries, and the combination of the Mining & Construction Industries. Row (14) of Table B1 indicates that as of March 2002, 70.2 percent of the employment in the Goods-Producing Industries were accounted for by Manufacturing Industries and 29.8 percent were accounted for by the Mining & Construction Industries.

With this information, the approximate costs of Total remuneration and its various components in Mining & Construction can be estimated by solving equations such as this for Total Remuneration:

$$25.44 = (.702)\,(25.20) + (.298)\,(X)$$

where X is the total remuneration in Mining and Construction.

Solving this equation provides the estimate that total remuneration in Mining and Construction averages

Table B1
Workers' Compensation Costs for Employers in the Mining & Construction Industries in March 2002
(In Dollars Per Hours Worked)

		Goods-Producing (A)	Manufacturing (B)	Mining & Construction (C)
(1)	Total Remuneration	25.44	25.20	26.01
(2)	Gross Earnings	20.24	20.23	20.26
(3)	Wages and Salaries	17.47	17.19	18.13
(4)	Paid Leave	1.66	1.91	1.07
(5)	Supplemental Pay	1.11	1.13	1.06
(6)	Benefits Other Than Pay	5.19	4.97	5.70
(7)	Insurance	2.01	2.11	1.77
(8)	Retirement Benefits	0.88	0.74	1.21
(9)	Legally Required Benefits	2.25	2.05	2.72
(9A)	Workers' Compensation	(0.61)	(0.43)	(1.03)
(10)	Other Benefits	0.05	0.07	*
(11)	Workers' Compensation Percentage of Remuneration	2.40%	1.71%	3.96%
(12)	Workers' Compensation As Percentage of Gross Earnings	3.01%	2.13%	5.08%
(13)	Employment (Millions)	23.975	16.822	7.153
(14)	Share of Employment in Goods Producing	100.0%	70.2%	29.8%

Notes:
1. The text and all tables in this article use the term "remuneration" in place of the term "compensation" that is used by the BLS.
2. Total remuneration (row 1) = gross earnings (row 2) + benefits other than pay (row 6).
3. Gross earnings (row 2) = wages and salaries (row 3) + paid leave (row 4) + supplemental pay (row 5).
4. Benefits other than pay (row 6) = insurance (row 7) + retirement benefits (row 8) + legally required benefits (row 9) + other benefits (row 10).
5. Workers' compensation (row 9A) is one of the legally required benefits (row 9).
6. Workers' compensation as percent of remuneration (row 11) = workers' compensation (row 9A) + total remuneration (row 1).
7. Workers' compensation as percent of gross earnings (row 12) = workers' compensation (row 9A) + gross earnings (row 2).
8. Results in rows (2), (6), (11), and (12) were calculated by Florence Blum and John F. Burton, Jr.
9. Individual items may not sum to total remuneration because of rounding in BLS data.
10. Goods-Producing includes mining, construction, and manufacturing.
11. Service-Producing includes transportation, communication, and public utilities: wholesale and retail trade; finance, insurance, and real estate; and service industries.

* Cost per hour worked is $0.01 or less

Source: Columns (A) and (B), Rows 1-10: *Employer Costs for Employee Compensation March 2002,* News Release USDL: 02-346 (June 19, 2002), Table 5.
Columns (A), (B), and (C), Rows 13-14: March 2002 Employment from Monthly Labor Review, July 2002, Vol. 125, No. 7, Table 12, pp. 81-82.
Column (C), Rows 1-10, derivation explained in text.

$26.01 per hour, which is the figure shown in Row (1) of Column (C) of Table B1. Similar equations were solved for each of the other entries in Rows (2) to (10) in Column (C) of Table B1. The estimate of workers' compensation costs as 3.96 percent of total remuneration in Row (11) was calculated by dividing the figure of $ 1.03 in Row (9A) by the figure of $26.01 in Row (1). The estimate of workers' compensation costs as 5.08 percent of gross earnings in Row (12) was calculated by diving the figure of $ 1.03 in Row (9A) by the figure of $20.26 in Row (2).

The results shown in Column (C) of Table B1 and Figure D should be understood as rough estimates of the costs of various items in the construction and mining industries since they are based on our manipulation of the BLS data. We nonetheless feel they are accurate enough to be useful to illustrate the relatively high costs of workers' compensation in the mining and construction industries. Since the BLS data indicate that construction industry employment represents 92.2 percent of the total of the combined construction and mining industries, the results strongly suggest that construction is the most expensive major industry group in the U.S. economy in terms of the costs of workers' compensation for employers.

ENDNOTES

1. The BLS data used in this article were published in U.S. Department of Labor 2002a. The national data for private industry employees, state and local employees, and all non-federal employees were analyzed in Burton 2002.

2. The data set is described in more detail in Burton 1995.

3. The BLS data on the employers' costs of workers' compensation do not provide information on individual states or on any other disaggregated level geographically, aside from the four regions for which data are shown in Figure A.

The four BLS-designated regions are the same as the U.S. Census regions and consist of the following categorization: 1) **Northeast** (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont); 2) **South** (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia); 3) **Midwest** (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin); and 4) **West** (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

4. Generally, two regions will be above the national average and the remaining two regions will be below the national average. However, in 2001 workers' compensation costs in one region (the Northeast) were very low compared to the national average, while the costs in the other three regions were generally only moderately higher than the national average. As a result, three regions had costs above the national average and only one region had costs below the national average in 2001, as discussed in Blum and Burton 2002.

5. The BLS uses the term "total compensation" for wages and salaries *plus* total benefits. We have instead used the term "total remuneration," lest the references to "total compensation" and to "workers' compensation" (one of the BLS's subcategories under "total benefits") become too confusing.

6. Specifically, the *gross earnings* figure includes wages and salaries; paid leave (vacations, holidays, sick leave, and other leave); and supplemental pay (premium pay, shift pay, and nonproduction bonuses). The *benefits other than pay* figure includes insurance (life insurance, health insurance, sickness and accident insurance); retirement and savings (pensions, savings and thrift); legally required benefits (Social Security, federal unemployment, state unemployment, and workers' compensation); and other benefits (includes severance pay and supplemental unemployment benefits).

7. The latter decision reflects a judgment that, since workers' compensation benefits are generally tied to workers' preinjury wages, and thus benefits and costs ought to increase proportionately with wages, costs as a percentage of wages and salaries should be the same across states and regions.

For example, suppose that in all regions, for every 1,000 hours worked, there are work injuries that result in the loss of 50 hours of work. Also suppose that two-thirds of lost wages are replaced by workers' compensation benefits in all regions. (A two-thirds replacement rate is a commonly used measure of adequacy.)

Using the data on hourly gross earnings shown in Table 1, the total payroll in the **South** for 1,000 hours worked is $16,080 ($16.08 X 1,000 hours); the total amount of workers' compensation benefits is $536 ($16.08 X 50 hours X 2/3 replacement rate); benefits (assumed to be the same as costs for this example) as a percentage of gross earnings in the **South** are 3.33 percent ($536 divided by $16,080).

Using the data on hourly gross earnings shown in Table 1, the total wage bill in the **Northeast** for 1,000 hours worked is $20,570 ($20.57 X 1,000 hours); the total amount of workers' compensation benefits is $685.67 ($20.57 X 50 hours X 2/3 replacement rate); benefits (assumed to be the same as costs for this example) as a percentage of wages and salaries in the **Northeast** are 3.33 percent ($685.67 divided by $20,570).

8. There were 560 thousand employees in mining and 6,593 thousand employees in construction in March 2002, according to the U.S. Department of Labor 2002C, Table 12, p.81.

9. U.S. Department of Labor, 2002b, 63.

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Workers' Compensation Coverage

by Cecili Thompson, Virginia Reno, Daniel Mont, John F. Burton, Jr., and Terry Thomason

The National Academy of Social Insurance (NASI) produces national and state estimates of workers' compensation benefits, costs, and coverage each year. The most recent report, *Workers' Compensation: Benefits, Coverage, and Costs, 2000*, presented estimates of the number of workers covered by state and federal workers' compensation programs in 2000 (Mont, Burton, Reno and Thompson, 2002). We have refined the methods used to estimate workers' compensation coverage, and this article explains those methods. We estimate that workers' compensation laws covered 126.8 million jobs in the United States in 2000, which accounted for 97.7 percent of the 129.9 million jobs covered by the unemployment insurance (UI) program that year (Table 1).

The extent of statutory covered employment varies among states. Many workers' compensation laws exempt certain categories of employers or workers, such as firms with very few employees, agricultural employers, household workers, or employees of some units of state and local governments. We estimate that in 2000 the proportion of jobs covered by the various jurisdictions' workers' compensation laws ranged from 100 percent of UI coverage in twenty-three states to 83.2 percent in Texas.

Unemployment Insurance Coverage as a Baseline

Our estimates of workers' compensation coverage start with the number of workers in each state who are covered by unemployment insurance. These numbers are shown in Column 1 of Table 1. Almost all (about 96 to 97 percent) of wage and salary workers in the United States are covered by unemployment insurance, according to the Bureau of Labor Statistics (Department of Labor 2002). Wage and salary workers who are not required to be covered under unemployment insurance include: some farm and household workers who earn less than a threshold amount or work less than a specified amount of time for one employer; some state and

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Terry Thomason was appointed as Director of the Charles T. Schmidt, Jr. Labor Research Center and as a professor at the University of Rhode Island in 1999. Terry held undergraduate and master's degrees from the University of Alabama, and received a Ph.D. in Industrial and Labor Relations from Cornell University in 1989. Terry was a member of the Study Panel on National Data on Workers' Compensation of the National Academy of Social Insurance, and helped prepare the coverage estimates included in this article. Terry died in April 2002. A remembrance of Terry Thomason is included in the March/April issue of the *Workers' Compensation Policy Review*.

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Table 1
Workers' Compensation Coverage of Employees, By State, 2000

State	UI Coverage (1)	Workers' Compensation Coverage (2)	Workers' Compensation Coverage as a Percent of UI Coverage (3)
Alabama	1,824,597	1,733,512	95.0
Alaska	258,502	258,502	100.0
Arizona	2,172,249	2,172,249	100.0
Arkansas	1,108,484	1,065,141	96.1
California	14,591,437	14,591,437	100.0
Colorado	2,131,935	2,131,935	100.0
Connecticut	1,651,288	1,651,288	100.0
Delaware	401,501	397,623	99.0
District of Columbia	449,881	444,979	98.9
Florida	6,936,076	6,664,517	96.1
Georgia	3,786,260	3,661,368	96.7
Hawaii	522,787	522,787	100.0
Idaho	549,697	549,697	100.0
Illinois	5,840,379	5,800,000	99.3
Indiana	2,892,923	2,852,208	98.6
Iowa	1,422,501	1,417,539	99.7
Kansas	1,286,302	1,269,995	98.7
Kentucky	1,723,956	1,707,487	99.0
Louisiana	1,831,692	1,831,692	100.0
Maine	576,533	576,533	100.0
Maryland	2,276,978	2,276,978	100.0
Massachusetts	3,217,784	3,190,591	99.2
Michigan	4,525,080	4,427,485	97.8
Minnesota	2,572,145	2,572,145	100.0
Mississippi	1,109,624	1,046,870	94.3
Missouri	2,617,453	2,485,559	95.0
Montana	365,725	365,725	100.0
Nebraska	1,002,670	988,458	98.6
Nevada	866,590	856,114	98.8
New Hampshire	598,299	598,299	100.0
New Jersey	3,809,400	3,809,400	100.0
New Mexico	686,741	651,693	94.9
New York	8,325,163	8,312,568	99.8
North Carolina	3,795,188	3,710,308	97.8
North Dakota	299,601	296,001	98.8
Ohio	5,425,616	5,425,616	100.0
Oklahoma	1,404,115	1,404,115	100.0
Oregon	1,576,669	1,560,008	98.9
Pennsylvania	5,444,212	5,444,212	100.0
Rhode Island	456,760	407,168	89.1
South Carolina	1,789,030	1,714,417	95.8
South Dakota	352,778	352,778	100.0
Tennessee	2,613,576	2,501,404	95.7
Texas	9,102,657	7,573,411	83.2
Utah	1,011,384	1,011,384	100.0
Vermont	290,371	290,371	100.0
Virginia	3,275,167	3,202,515	97.8
Washington	2,636,707	2,636,707	100.0
West Virginia	664,175	664,175	100.0
Wisconsin	2,703,541	2,645,726	97.9
Wyoming	223,409	223,409	100.0
US, Non-Federal	126,997,588	123,946,099	97.6
Federal	2,871,370	2,871,370	100.0
US Total	129,868,958	126,817,469	97.7

Table 2
Workers' Compensation Coverage for Non-Federal Employees, By State, 2000

State	Private Sector Nonfarm			Agriculture			State and Local Government		
	UI Coverage (1)	Exemptions (2)	WC Coverage (3)	UI Coverage (4)	Exemptions (5)	WC Coverage (6)	UI Coverage (7)	Exemptions (8)	WC Coverage (9)
Alabama	1,521,977	71,533	1,450,444	19,552	19,552	-	283,068	-	283,068
Alaska	205,232	-	205,232	1,618	-	1,618	51,652	-	51,652
Arizona	1,855,460	-	1,855,460	48,502	-	48,502	268,287	-	268,287
Arkansas	935,831	26,889	908,942	16,454	16,454	-	156,199	-	156,199
California	12,111,448	-	12,111,448	515,820	-	515,820	1,964,169	-	1,964,169
Colorado	1,834,553	-	1,834,553	32,951	-	32,951	264,431	-	264,431
Connecticut	1,442,928	-	1,442,928	17,657	-	17,657	190,703	-	190,703
Delaware	350,331	-	350,331	3,878	3,878	-	47,292	-	47,292
District of Columbia	415,088	-	415,088	-	-	-	34,793	4,902	29,891
Florida	5,928,424	271,559	5,656,865	155,964	-	155,964	851,688	-	851,688
Georgia	3,247,726	79,934	3,167,792	44,958	44,958	-	493,576	-	493,576
Hawaii	432,406	-	432,406	11,036	-	11,036	79,345	-	79,345
Idaho	440,891	-	440,891	21,983	-	21,983	86,823	-	86,823
Illinois	5,087,328	-	5,087,328	52,015	-	52,015	701,036	40,379	660,657
Indiana	2,524,664	-	2,524,664	27,629	27,629	-	340,630	13,086	327,544
Iowa	1,201,051	-	1,201,051	18,290	-	18,290	203,160	4,962	198,198
Kansas	1,066,725	-	1,066,725	16,307	16,307	-	203,270	-	203,270
Kentucky	1,462,479	-	1,462,479	16,469	16,469	-	245,008	-	245,008
Louisiana	1,497,726	-	1,497,726	17,331	-	17,331	316,635	-	316,635
Maine	488,656	-	488,656	7,327	-	7,327	80,550	-	80,550
Maryland	1,949,150	-	1,949,150	23,202	-	23,202	304,626	-	304,626
Massachusetts	2,842,252	-	2,842,252	24,052	-	24,052	351,480	27,193	324,287
Michigan	3,911,473	97,595	3,813,878	46,958	-	46,958	566,649	-	566,649
Minnesota	2,233,693	-	2,233,693	26,574	-	26,574	311,878	-	311,878
Mississippi	897,398	44,780	852,618	17,974	17,974	-	194,252	-	194,252
Missouri	2,245,449	107,108	2,138,341	24,786	24,786	-	347,218	-	347,218
Montana	301,654	-	301,654	4,854	-	4,854	59,217	-	59,217
Nebraska	858,860	-	858,860	14,212	14,212	-	129,598	-	129,598
Nevada	755,226	-	755,226	10,476	10,476	-	100,888	-	100,888
New Hampshire	523,970	-	523,970	5,675	-	5,675	68,654	-	68,654
New Jersey	3,288,564	-	3,288,564	32,136	-	32,136	488,700	-	488,700
New Mexico	547,882	18,866	529,016	16,182	16,182	-	122,677	-	122,677
New York	7,020,982	-	7,020,982	52,982	-	52,982	1,251,199	12,595	1,238,604
North Carolina	3,206,037	84,880	3,121,157	53,002	-	53,002	536,149	-	536,149
North Dakota	250,498	-	250,498	3,600	3,600	-	45,503	-	45,503
Ohio	4,728,669	-	4,728,669	46,042	-	46,042	650,905	-	650,905
Oklahoma	1,158,906	-	1,158,906	14,210	-	14,210	230,999	-	230,999
Oregon	1,315,327	-	1,315,327	47,977	-	47,977	213,365	16,661	196,704
Pennsylvania	4,809,272	-	4,809,272	51,222	-	51,222	583,718	-	583,718
Rhode Island	401,291	18,918	382,373	3,481	3,481	-	51,988	27,193	24,795
South Carolina	1,486,929	54,442	1,432,487	20,171	20,171	-	281,930	-	281,930
South Dakota	301,429	-	301,429	4,008	-	4,008	47,341	-	47,341
Tennessee	2,269,114	92,807	2,176,307	19,365	19,365	-	325,097	-	325,097
Texas	7,625,872	1,281,146	6,344,726	121,746	20,453	101,293	1,355,039	227,647	1,127,392
Utah	860,477	-	860,477	9,578	-	9,578	141,329	-	141,329
Vermont	245,179	-	245,179	3,897	-	3,897	41,295	-	41,295
Virginia	2,785,757	72,652	2,713,105	37,313	-	37,313	452,097	-	452,097
Washington	2,156,459	-	2,156,459	91,479	-	91,479	388,769	-	388,769
West Virginia	547,070	-	547,070	4,333	-	4,333	112,772	-	112,772
Wisconsin	2,349,036	57,815	2,291,221	29,532	-	29,532	324,973	-	324,973
Wyoming	172,478	-	172,478	3,527	-	3,527	47,404	-	47,404
US, Non-Federal	108,097,277	2,380,924	105,716,353	1,910,287	295,947	1,614,340	16,990,024	374,618	16,615,406

local employees, such as elected officials; employees of some non-profit employers (such as religious organizations) for whom UI coverage is optional in some states; unpaid family workers; and railroad employees who are covered under a separate unemployment insurance program. Railroad workers are also not covered by workers' compensation, but are covered under a separate work-injury program.

The number of workers covered by unemployment insurance in each state in Table 1 represents a complete census of all jobs covered by the state UI program in the jurisdiction. All U. S. employers who are required to pay unemployment taxes must report quarterly to their state employment security agencies information about their employees and payroll covered by unemployment insurance. These employer reports are the basis for statistical reports prepared by the Bureau of Labor Statistics, knows as the ES-202 data.

No data comparable to the UI coverage data exist with regard to coverage under workers' compensation. Consequently, we estimate workers' compensation coverage by starting with the number of UI-covered workers in each state.

Key Assumptions

Key assumptions underlying the NASI estimates of workers' compensation coverage in 2000 are as follows:

(1) Workers whose employers do not report that they are covered by unemployment insurance are assumed not to be covered by workers' compensation.

(2) Workers whose employers do report they are covered by unemployment insurance are assumed to be covered by workers' compensation, except in the following cases:

(a) Workers in small firms (which are required to provide UI coverage in every state) are assumed not to be covered by workers' compensation if the state law exempts small firms from mandatory workers' compensation coverage.

(b) Employees in agricultural industries (who may be covered by UI) are assumed not to be covered by workers' compensation if the state law exempts agricultural employers from mandatory coverage.

(c) State and local employees who are in categories of jobs or government units exempt from workers' compensation coverage are assumed not to be covered. For example, police and firefighters in some jurisdictions are not covered by workers' compensation because they are covered under alternative systems that provide medical, disability, and death benefits for injuries on the job.

In Texas, where workers' compensation coverage is elective for almost all employers, our estimates of coverage are based on periodic surveys conducted by the Texas Workers' Compensation Research and Oversight Council.

Finally, all federal employees are covered by both workers' compensation and unemployment insurance, regardless of the state in which they work. They are classified separately in our estimates of the number of workers covered by workers' compensation programs in Table 1.

Table 3
States with Numerical Exemptions for Private Sector Employers

State	Percentage of Employment in Firms with Fewer Than Five Employees, 1999
Employers Exempt If Fewer Than Three Employees	
Arkansas	5.09
Georgia	4.36
Michigan	4.42
New Mexico	6.10[a]
North Carolina	4.69
Virginia	4.62[a]
Wisconsin	4.36
Employers Exempt If Fewer Than Four Employees	
Florida	5.83
Rhode Island	6.00
South Carolina	4.66
Employers Exempt If Fewer Than Five Employees	
Alabama	4.70
Mississippi	4.99
Missouri	4.77
Tennessee	4.09

Source: Small Business Administration (SBA)

[a] Data are for 1998 because 1999 data was not available.

Our estimates of jobs held by employees covered by workers' compensation laws make adjustments from UI coverage in states that: (a) exempt employees of small, private, non-farm firms; (b) do not provide mandatory coverage of farm workers; and (c) exempt certain categories of state and local employees. These adjustments are shown in Table 2.

Small Firm Exemptions

Fourteen states exempt from mandatory workers' compensation coverage small, private, non-farm firms. Firms with fewer than three employees are exempt from mandatory coverage in seven states: Arkansas, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Firms with fewer than four employees are exempt in three states: Florida, Rhode Island, and South Dakota. Finally, firms with fewer than five employees are exempt from mandatory coverage in Alabama, Mississippi, Missouri, and Tennessee (Department of Labor, Employment Standards Administration, 2000). No state has similar exemptions for the UI program. Therefore, in each of these states we estimate the number of workers employed by exempt small firms and subtract them from the number of UI-covered workers in private, non-farm firms.

Census data on the percentage of workers employed in firms with fewer than five employees in these fourteen states are shown in Table 3 (Small Business Administration, 2002). To estimate the number of workers in firms of fewer than four or three employees we used national data from

the Census Bureau, which show that of all employees in firms with fewer than five employees, 78.57 percent were in firms with fewer than four employees, and 56.45 percent were in firms with fewer than three employees. The following two examples show how we estimated the number of workers in states with small firm exemptions.

In Alabama, employers are exempt from workers' compensation coverage if they have fewer than five employees. The 4.70 percent of Alabama employees in firms with fewer than five employees is applied to the total number of UI-covered jobs in private, non-farm firms (column 1 of Table 2) to estimate that 71,533 jobs (1,521,977 x 0.047) were not covered by the workers' compensation program in Alabama because of the numerical exemption (column 2 of Table 2). The remaining 1,450,444 private, non-farm UI-covered jobs in Alabama (column 3 of Table 2) are estimated to be covered by workers' compensation.

For Georgia, we estimate the number of exempt workers in firms with fewer than three employees as follows. There were 4.36 percent of Georgia employees in firms with fewer than five employees. Of these, 56.45 percent are estimated to be in firms with fewer than three employees. Thus the percentage of employees in Georgia in firms with fewer than three employees was 2.46 percent (4.36 percent x 0.5645 = 2.46 percent). The total number of private, non-farm jobs covered by the UI program in Georgia was 3,247,726 (column 1 of Table 2) and, therefore, 79,934 jobs (3,247,726 x 2.46 percent) (column 2 of Table 2) were exempt from workers' compensation coverage in Georgia because of the numerical exemption.

Agricultural Exemptions

In sixteen states, agricultural employers are exempt from mandatory coverage under workers' compensation. These states are: Alabama, Arkansas, Delaware, Georgia, Indiana, Kansas, Kentucky, Missouri, Mississippi, North Dakota, Nebraska, New Mexico, Nevada, Rhode Island, South Carolina, and Tennessee. We assume that farm workers are not covered by a jurisdiction's workers' compensation program if the state law does not require coverage.

The procedure used to produce the effect of the exclusion from mandatory coverage of agricultural workers is shown in Table 2. The number of jobs for agricultural employees covered by the UI program is shown in column (4); the number of those jobs that are not covered by workers' compensation because of lack of mandatory coverage of agricultural workers is shown in column (5); the number of jobs for agricultural employees that are covered by the workers' compensation program is shown in column (6).

For example, in Delaware, 3,878 jobs in agriculture are covered by the UI program (column 4 of Table 2). Because these jobs are not required to be covered by workers' compensation in Delaware, these jobs are subtracted to produce an estimate of zero agricultural employee jobs covered by workers' compensation in Delaware (column 6 of Table 2).

State and Local Employee Exemptions

We assume that state workers' compensation programs cover state and local government workers for whom coverage is not mandatory but is elective. Some states, however, specifically exclude from workers' compensation law certain occupations (e. g., police officers and firefighters, because they are covered under other systems that provide medical, disability, and death benefits for work-related injuries). We assume these workers who are specifically exempt are not covered by the workers' compensation program.

In the District of Columbia, for example, all state and local employees are covered by the workers' compensation law, except police and firefighters, who have a separate system of medical, disability, and death benefits for injuries on the job. From the Census of Government data, we obtained the number of workers falling into these categories, or 4,902 in 2000. This number of workers is subtracted from the number of jobs held by District of Columbia employees who are covered by the UI program.

Coverage in Texas

In Texas, coverage is elective for almost all employers. If employers do not elect coverage, they are not protected from tort suit liability in the event of occupational injuries and illnesses in the same way that covered employers are protected. Our estimate of Texas coverage is based on periodic surveys conducted by the Texas Workers' Compensation Research and Oversight Council. The two most recent surveys found that 80 percent of Texas workers were covered in 1996 and 84 percent were covered in 2001 (Shields and Campbell, 2001). We used a simple extrapolation between these figures to estimate that 83.2 percent of Texas workers who were covered by unemployment insurance in 2000 were also covered by workers' compensation (Table 4). In Texas, 9,102,657 jobs were covered by

Table 4
Coverage of Workers in Texas, 1996 to 2001

Year	Percent of Workers Covered
1996	80.0
1997	80.8
1998	81.6
1999	82.4
2000	83.2
2001	84.0

the UI program in 2000 (column 1 of Table 1) and 83.2 percent of these jobs, or 7,573,411 jobs, are estimated to be covered by workers' compensation (column 2 of Table 1).

Total Workers' Compensation Coverage

Our estimates of total workers' compensation coverage in each state are summarized in Table 1. For each state, the total number of covered workers is the sum of our estimates of workers compensation coverage in columns (3), (6) and (9) in Table 2, for private, non-farm jobs, agricultural employment, and state and local employment, respectively.

In twenty-three states, we estimate that 100 percent of jobs that are covered by unemployment insurance are also covered by workers' compensation. Workers' compensation in the remaining states is less than 100 percent of UI coverage. Rhode Island exempts small employers, agricultural employers, and some government workers. Eight states exempt both small employers and agricultural employers from mandatory coverage. In these eight states – Alabama, Arkansas, Georgia, Mississippi, Missouri, New Mexico, South Carolina, and Tennessee – the proportion of workers covered by workers' compensation is estimated to be between 94 and 96 percent of UI coverage. In most other jurisdictions except Texas, we estimate that workers' compensation covers between 95 and 99 percent of UI-covered jobs.

Caveats on Estimates

It is important to recognize that our estimates of workers' compensation coverage are only as good as the assumptions on which the estimates are based. These assumptions are described in the second section of this article. First, because we start with a census of all jobs that employers report to be covered by unemployment insurance, we do not consider jobs that are not covered by unemployment insurance. The Bureau of Labor Statistics estimates that about three to four percent of U.S. wage and salary jobs are not covered by unemployment insurance. Second, our estimates count jobs that are required to be covered by workers' compensation. We have no method for estimating actual compliance with those laws. Third, we generally assume that if workers' compensation is not required under state law, employers do not provide it. It is quite possible that some employers will provide workers' compensation coverage for their workers even if it is not required. Again, we do not have a method for estimating how many employers voluntarily provide workers' compensation coverage in these cases.

Conclusions

The work of the National Academy of Social Insurance to estimate coverage under workers' compensation is a work in progress. We continually seek ways to improve our methods and estimates. No other national data exist that count the number of workers covered by workers' compensation. Unlike unemployment insurance, workers' compensation has no national system for employers to consistently report their status. The NASI estimates can provide a useful benchmark for assessing workers' compensation programs and for drawing comparisons across states. Estimates of the number of workers covered in each state are also useful for comparing the relative size of aggregate benefit payments across states.

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We are exploring ways to extend our analysis of workers' compensation coverage to provide estimates of the percentage of the total workforce in each state that is covered by the workers' compensation program. Our first such effort was presented at a meeting of the International Association of Industrial Accident Boards and Commissions in October 2002. That Fact Sheet, *Workers' Compensation Coverage by State*, is available on the Academy's website, www.nasi.org. The Academy seeks to improve our estimates of workers' compensation coverage and to present them in ways that are useful to scholars and policymakers. We welcome comments, questions, and suggestions about ways to improve the accuracy and usefulness of our estimates of coverage, which should be directed to Virginia Reno at the National Academy of Social Insurance (vreno@nasi.org).

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