

# Differences between union and nonunion compensation, 2001–2011

*Union workers continue to receive higher wages than nonunion workers and have greater access to most employer-sponsored employee benefits; during the 2001–2011 period, the differences between union and non-union benefit cost levels appear to have widened*

George I. Long

Recent data from the Bureau of Labor Statistics (BLS) show that, on average, union workers receive larger wage increases than those of non-union workers and generally earn higher wages and have greater access to most of the common employer-sponsored benefits as well.<sup>1</sup> These trends appear to persist despite declining union membership.<sup>2</sup> The National Compensation Survey (NCS) measures compensation levels and benefit provisions for many worker and industry characteristics. This article uses NCS data to examine some of the similarities and differences between union and nonunion compensation during the period from 2001 to 2011.

Data from the Current Population Survey (CPS) show that 14.8 percent of wage and salary workers (or nearly 18 million employees) were represented by a union in 2001, compared with only 13.0 percent (more than 16 million employees) in 2011.<sup>3</sup> In addition, data from the Economic Policy Institute show nearly identical trends: almost 15 percent of workers were covered by a collective bargaining agreement in 2001, but only 13.1 percent were covered by such an agreement in 2011.<sup>4</sup> The NCS considers a worker to be in a union occupation when all of the following conditions apply:

- A labor organization is recognized as the bargaining agent for all workers

in the sampled occupation.

- Wage and salary rates are determined through collective bargaining or negotiations.
- Settlement terms must include earnings provisions and may include benefit provisions.
- These provisions are embodied in a signed, mutually binding collective bargaining agreement.

Compensation data from the NCS include separate data by bargaining status. Data showing the rate of change in employer compensation costs (from the Employment Cost Index) have been available by bargaining status since 1976. Data on actual compensation costs (from the Employer Costs for Employee Compensation program) have been available since 1986.<sup>5</sup>

## Employer Costs for Employee Compensation

According to March 2001 Employer Costs for Employee Compensation (ECEC) data, wages and salaries for private industry union workers averaged \$18.36 per hour while those for nonunion private industry workers averaged \$14.81 per hour. Union workers' wages were also higher in March 2011, averaging \$23.02 per hour for union workers compared with \$19.51 per hour for nonunion workers. Historically, union wage levels have been consistently higher in all reference periods between 2001

George I. Long is an economist in the Division of Compensation Data Analysis and Planning, Bureau of Labor Statistics. Email: long.george@bls.gov.

**Table 1. Employer costs per hour worked, wages and salaries and benefit costs by bargaining status, private industry workers, March 2001 to March 2011**

Reference date	Union wages	Nonunion wages	Wage Difference	Union total benefit costs	Nonunion total benefit costs	Benefit cost Difference
March 2001	\$18.36	\$14.81	\$3.55	\$9.45	\$5.18	\$4.27
March 2002	\$19.33	\$15.38	\$3.95	\$10.09	\$5.41	\$4.68
March 2003	\$19.95	\$15.69	\$4.26	\$10.72	\$5.67	\$5.05
March 2004	\$20.32	\$16.21	\$4.11	\$11.61	\$6.06	\$5.55
March 2005	\$20.76	\$16.72	\$4.04	\$12.41	\$6.38	\$6.03
March 2006	\$21.24	\$17.32	\$3.92	\$12.83	\$6.71	\$6.12
March 2007	\$21.92	\$17.92	\$4.00	\$13.35	\$6.90	\$6.45
March 2008	\$22.46	\$18.49	\$3.97	\$13.82	\$7.15	\$6.67
March 2009	\$22.76	\$19.06	\$3.70	\$13.82	\$7.33	\$6.49
March 2010	\$22.90	\$19.21	\$3.69	\$14.26	\$7.46	\$6.80
March 2011	\$23.02	\$19.51	\$3.51	\$14.67	\$7.56	\$7.11

and 2011. (See table 1.)

In addition to the estimates of wages and salaries, the ECEC program also produces estimates of average cost of employee benefits per hour worked by a number of employee and employer characteristics. However, data users should use caution when making comparisons of average per-hour costs of benefits across the various employee groups because the ECEC estimates represent averages of employer costs incurred on behalf of all employees—those who have access to benefits and those who do not, as well as those who choose to participate in benefits and those who do not. As a result, estimates of average per-hour-worked benefit costs calculated in this manner reflect not only the “pure” costs of benefits for employees in a given employee group, but also the incidence (access and participation) of benefits among the workers in this group.<sup>6</sup>

Benefit costs were higher for union workers than for nonunion workers for all of the quarters presented in table 1. In March 2001, the average benefit costs were \$9.45 per hour worked for union workers but only \$5.18 per hour worked for nonunion workers. The average total benefit cost was \$14.67 per employee hour worked for union workers in March 2011 but only \$7.56 per employee hour worked for nonunion workers. While the difference between union and nonunion wages has remained fairly consistent over time, the difference between union and nonunion benefit costs appears to have widened.<sup>7</sup> In addition, although the difference in dollar per hour compensation

costs between union and nonunion workers has increased, the cost difference on a percentage basis has remained stable: on average, total benefit costs to employers of nonunion workers have consistently remained at about half those to employers of union workers.

### Occupational differences

The ECEC data provide occupational labor cost estimates for the entire nation. These national occupational pay estimates originate from previously unpublished ECEC data from December 2011. They afford a unique view of union and nonunion pay differences among various occupational groups both in private industry and in state and local government. (See table 2 and charts 1–3.)

*Management, professional, and related occupations.* In December 2011, union-represented civilian<sup>8</sup> workers in management, professional, and related occupations earned an average of \$37.37 per hour while their nonunion counterparts earned only \$34.60 per hour. In private industry, there is a different pattern among workers in this occupational group: those represented by unions earned an average of \$32.95 per hour, while those not represented by unions earned \$35.70 per hour. The wage advantage for nonunion workers in this occupational group reflects the concentration of union workers in certain relatively low-paying occupations in business and financial operations, such as claims adjusters, accountants, and training specialists. Among state and local government workers in this occupational group, those in unions earned an average of \$38.44 per

**Table 2. Employer costs per hour worked, by occupational group and collective bargaining status, December 2011**

Occupation	Civilian			Private industry			State and local government		
	Union	Non-union	Difference	Union	Non-union	Difference	Union	Non-union	Difference
All workers	\$26.88	\$20.15	\$ 6.73	\$23.04	\$19.84	\$3.20	\$31.24	\$23.01	\$ 8.23
Management, professional, and related	\$37.37	\$34.60	\$ 2.77	\$32.95	\$35.70	\$-2.75	\$38.44	\$29.64	\$ 8.80
Service	\$19.83	\$10.54	\$9.29	16.17	\$10.16	\$6.01	\$22.84	\$14.23	\$ 8.61
Sales and office	\$17.93	\$15.96	\$1.97	\$16.60	\$15.98	\$0.62	\$19.64	\$15.54	\$ 4.10
Natural resources, and construction	\$28.93	\$18.67	\$10.26	\$29.69	\$18.71	\$10.98	\$25.29	\$18.06	\$ 7.23
Production, trans-portion, and material moving	\$21.79	\$14.42	\$ 7.37	\$21.78	\$14.40	\$ 7.38	\$21.84	\$15.34	\$ 6.50

hour while those not in unions earned \$29.64 per hour.

*Sales and office occupations.* According to ECEC data for December 2011, unionized sales and office workers generally earned more than their nonunion counterparts. Civilian unionized sales and office workers earned an average of \$17.93 per hour, while their nonunion counterparts earned \$15.96 per hour. In private industry, unionized sales and office workers earned an average of \$16.60 per hour, compared with \$15.98 for nonunion workers in this group (although this difference is not statistically significant<sup>9</sup>). In state and local government, sales and office workers represented by unions averaged \$19.64 per hour while those not represented by unions earned \$15.54 per hour. The occupational distribution varies greatly between the public and private sectors, as a larger percentage of private industry workers are employed in low-paying sales occupations such as cashiers.

*Service occupations.* ECEC data for December 2011 show that unionized service workers earned more than nonunionized service workers. Among all civilian workers in this occupational group, those who were unionized earned an average of \$19.83 per hour while their nonunion counterparts earned only \$10.54 per hour. In private industry, unionized service workers earned an average of \$16.17 per hour, compared with \$10.16 per hour for nonunionized service workers. In state and local government, unionized service workers averaged \$22.84 per hour while service workers who were not unionized earned \$14.23 per hour. The occupational differences between the public and private sectors are significant, with highly skilled occupations—such as police and firefighters—dominating

state and local government and low-skilled restaurant and cleaning service occupations prevailing in private industry.

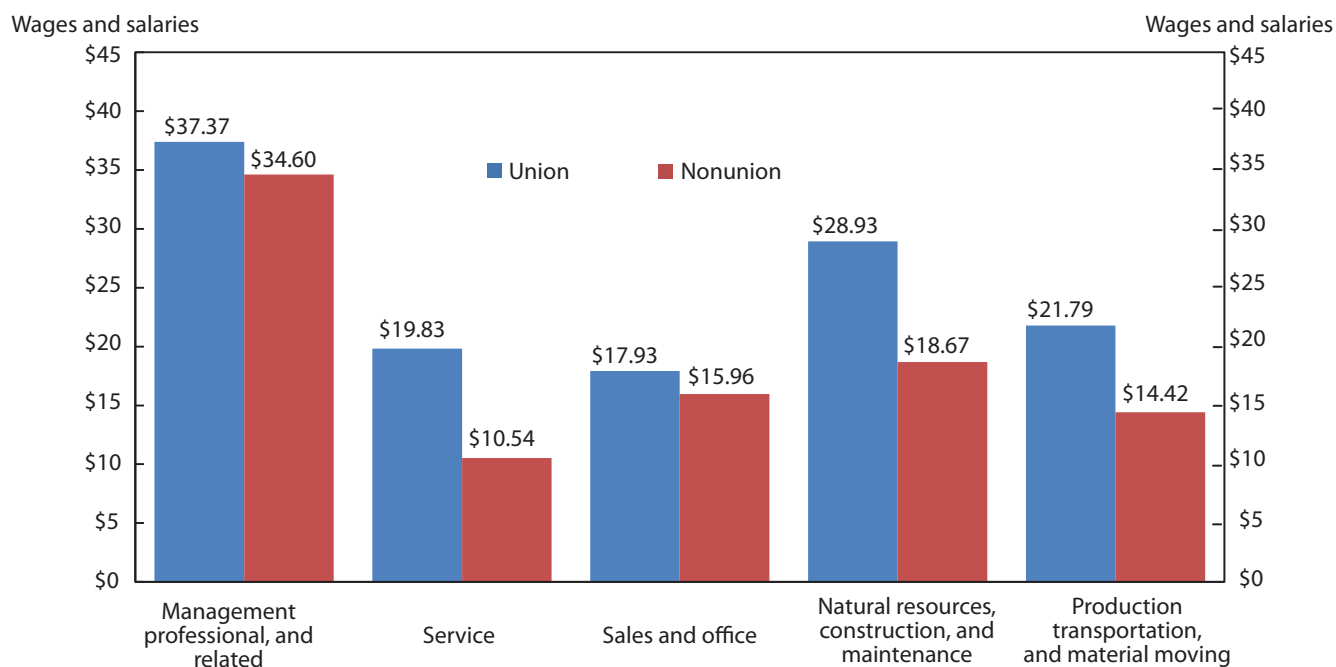
*Natural resources, construction, and maintenance occupations.* Similar to the situation for workers in service occupations, unionized workers in natural resources, construction, and maintenance occupations—regardless of whether in the public or private sector—had higher hourly wages than their nonunionized counterparts. Unionized civilian workers in this occupational group earned an average of \$28.93 per hour, while those not represented by unions earned \$18.67 per hour. In private industry, unionized workers averaged \$29.69 per hour while nonunionized workers averaged \$18.71 per hour. Unionized natural resources, construction, and maintenance workers in state and local government averaged \$25.29 per hour, while their nonunion counterparts averaged \$18.06 per hour.

*Production, transportation, and material moving occupations.* This occupational group also had higher wages for union workers than for nonunion workers in both the public and private sectors. Among all civilian workers, unionized production, transportation, and material moving workers earned \$21.79 per hour compared with \$14.42 per hour for nonunion workers. In private industry, unionized workers in this occupational group averaged \$21.78 per hour while nonunionized workers earned \$14.40 per hour.

## Employment Cost Index

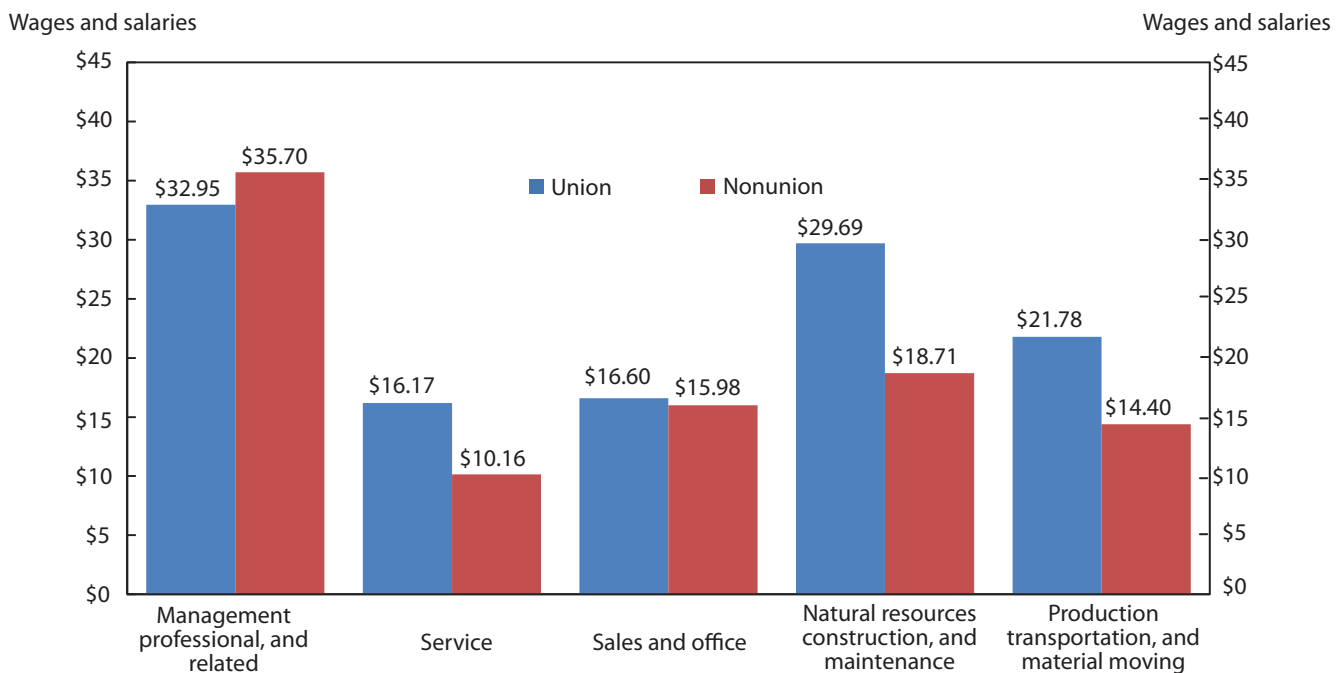
Data from the Employment Cost Index (ECI) show that union wages rose faster than nonunion wages in 2002. The results varied from 2003 to 2005, but increases in

**Chart 1** Wages and salaries by bargaining status and occupational group, civilian workers, December 2011



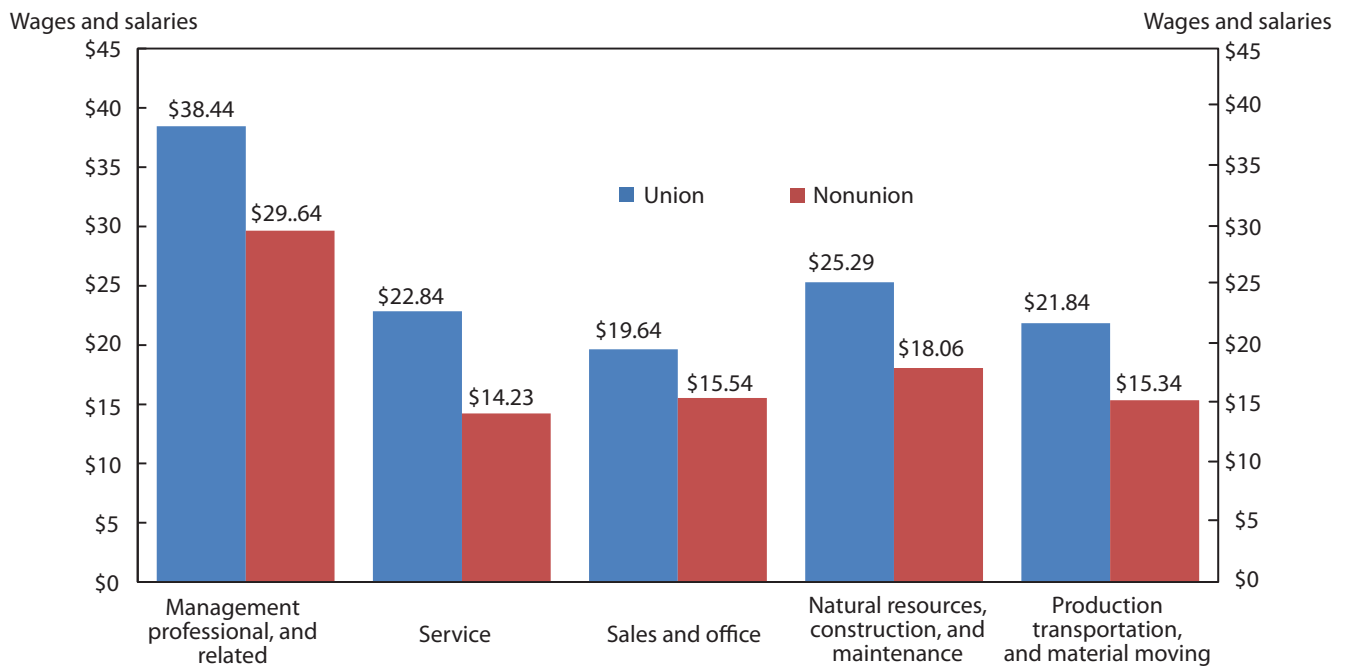
SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey.

**Chart 2.** Wages and salaries by bargaining status and occupational group, private industry workers, December 2011



SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey.

**Chart 3. Wages and salaries by bargaining status and occupational group, state and local government workers, December 2011**



SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey.

nonunion wages outpaced the increases in union wages in 2006 and 2007. During the first half of 2009, the growth of union and nonunion wages slowed, but in the last quarter of 2010 and throughout 2011, union wages and nonunion wages increased at nearly identical rates. (See chart 4.) The ECI data also show that benefit costs for union workers rose faster than benefit costs for nonunion workers during most of 2004, as well as in the latter half of 2010, but in general, increases in benefit costs for union workers were fairly similar to those for nonunion workers. (See chart 5.)

### Benefit incidence data

Recent data from the NCS show that union workers also tend to have greater access than their nonunion counterparts to most of the common employer-sponsored benefits.<sup>10</sup> (See table 3.) Union workers generally have greater access to retirement benefits, medical benefits, and most types of paid leave. The union workers' greater access to employer-sponsored benefits tends to be reflected in higher average benefit cost levels.<sup>11</sup> Although union workers usually had greater access to most employee benefits, some

notable exceptions include defined contribution retirement plans and civilian and state and local government paid vacation plans.<sup>12</sup> (See table 3.)

THIS ARTICLE ANALYZED UNION and nonunion compensation from the BLS National Compensation Survey (NCS). The Employer Costs for Employee Compensation (ECEC) data show that from 2001 to 2011, union workers in private industry generally had higher pay and higher total benefit cost averages than private-sector nonunion workers. The ECEC data also show that in December 2011, union workers earned more in all of the major occupational groups except sales and office occupations, where the differences in private sector pay were not statistically significant. A look at total compensation cost trends for union and nonunion workers showed that the actual dollar costs increased more for union workers than for nonunion workers, but on a percentage basis, these cost differences were nearly the same.

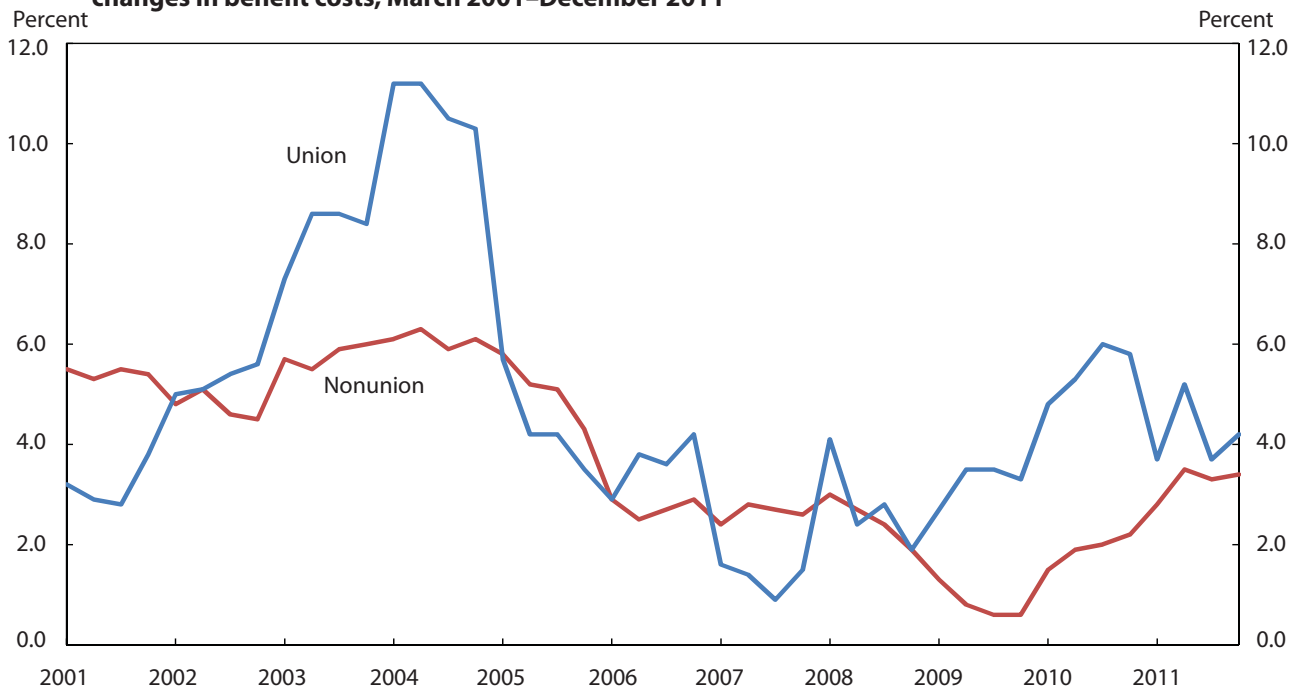
The Employment Cost Index (ECI) data for 2001 to 2011 show that 12-month percent-change wage increases for union workers were larger and occurred more frequently than for nonunion workers. The ECI data also show that both union and nonunion wage increases slowed during the

**Chart 4. Employment Cost Index, union and nonunion workers in private industry, 12-month percent changes in wages and salaries, March 2001–December 2011**



SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey.

**Chart 5. Employment Cost Index, union and nonunion workers in private industry, 12-month percent changes in benefit costs, March 2001–December 2011**



SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey.



**Table 3. Employee benefit access by ownership and collective bargaining status, March 2011**

(All workers = 100 percent)

Benefit type	Civilian		Private industry		State and local government	
	Union	Nonunion	Union	Nonunion	Union	Nonunion
All Retirement	93	64	90	61	97	84
Defined benefit	82	21	70	14	95	74
Defined contribution	41	56	53	59	28	32
Medical	93	69	92	67	95	81
Life insurance	85	57	83	55	86	74
Short-term disability	47	34	63	35	28	19
Long-term disability	35	32	35	32	34	35
Paid holidays	79	75	89	76	69	66
Paid sick leave	84	64	71	62	97	83
Paid vacations	74	75	90	76	57	62
Paid personal leave	59	38	49	37	70	49

first half of 2009 but accelerated in the last quarter of 2010. The slow growth in wages during this period is consistent with market pressures from the recent recession.<sup>13</sup>

Benefits data from the NCS show that union workers tend to have greater access to the more common employee benefits than their nonunion counterparts. The union workers' greater access to employer-sponsored benefits is

also reflected in higher average benefit cost levels.<sup>14</sup> Differences in union and nonunion pay and benefits may reflect factors other than a union presence. The occupational mix within categories; the mix of part-time and full-time workers; and the size, industry, and geographic location of the employing establishment are among other factors that can affect these results.<sup>15</sup> □

## Notes

<sup>1</sup> See *National Compensation Survey: Employee Benefits in the United States, March 2012*, bulletin 2773, (U.S. Bureau of Labor Statistics, September 2012), <http://www.bls.gov/ncs/ebs/benefits/2012/home.htm>. For historical data, see "Employer Costs for Employee Compensation: Historical Listing, March 2004–December 2012" (U.S. Bureau of Labor Statistics, March 2013), <ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/ececcqrtn.pdf>. Historically, union workers have earned more than nonunion workers. See Kay E. Anderson, Philip M. Doyle, and Albert E. Schwenk, "Measuring union-nonunion earnings differences," *Monthly Labor Review* (U.S. Bureau of Labor Statistics, June 1990); see also Ann C. Foster, "Union-nonunion Wage Differences, 1997," *Compensation and Working Conditions* (U.S. Bureau of Labor Statistics, Spring 2000); <http://www.bls.gov/opub/cwc/archive/spring2000brief2.pdf>.

<sup>2</sup> In 2011, the union membership rate—the percent of wage and salary workers who were members of a union—was 11.8 percent, and the number of workers belonging to unions that year was 14.8 million. In 1983, the first year for which comparable union data are available, the union membership rate was 20.1 percent and there were 17.7 million union workers. See "Union Members — 2011," news release USDL-12-0094 (U.S. Bureau of Labor Statistics, January 27, 2012), [http://www.bls.gov/news.release/archives/union2\\_01272012.htm](http://www.bls.gov/news.release/archives/union2_01272012.htm).

<sup>3</sup> For data on union representation and membership in 2001, see "Union Members in 2001," news release USDL-02-28 (U.S. Bureau

of Labor Statistics, January 17, 2002), [http://www.bls.gov/news.release/History/union2\\_01172002.txt](http://www.bls.gov/news.release/History/union2_01172002.txt); for 2011 data, see "Union Members — 2011."

<sup>4</sup> See Lawrence Mishel, "Unions, Inequality, and Faltering Middle-Class Wages," Issue Brief 342 (Economic Policy Institute, August, 2012), <http://www.epi.org/publication/ib342-unions-inequality-faltering-middle-class/>.

<sup>5</sup> *Employment Cost Index Historical Listing: Current Dollar, September 1975–December 2005*, vol. 1 (U.S. Bureau of Labor Statistics, March 2013), <http://www.bls.gov/web/eci/echistry.pdf>.

<sup>6</sup> See Thomas G. Moehrl, John L. Bishow, and Anthony J. Barkume, "Benefit Costs Concepts and Limitations of ECEC Measurement," *Compensation and Working Conditions Online*, July 2012, <http://www.bls.gov/opub/cwc/cm20120725ar01p1.htm>.

<sup>7</sup> Employer Costs for Employee Compensation (ECEC) data do not provide a valid time series. See Michael K. Lettau, Mark A. Lowenstein, and Aaron T. Cushner, "Explaining Differential Growth Rates of the ECI and ECEC," *Compensation and Working Conditions* (U.S. Bureau of Labor Statistics, Summer 1997), <http://www.bls.gov/opub/cwc/archive/summer1997art2.pdf>.

<sup>8</sup> In the NCS, the term "civilian" refers to the civilian economy, which includes both private industry and state and local government. Excluded from private industry are the self-employed and farm and

private household workers. Federal government workers are excluded from the public sector. The private industry series and the state and local government series provide data for the two sectors separately.

<sup>9</sup> By the relative standard error, the difference is not statistically significant.

<sup>10</sup> *National Compensation Survey: Employee Benefits in the United States, March 2012*, bulletin 2773, (U.S. Bureau of Labor Statistics, September 2012), <http://www.bls.gov/ncs/ebs/benefits/2012/home.htm>.

<sup>11</sup> See Lettau, Lowenstein, and Cushner, “Explaining Differential Growth Rates of the ECI and ECEC.”

<sup>12</sup> State and local government establishments include school

teachers who may not receive paid vacation days because of their work schedule. See Richard Schumann, “Work Schedules in the National Compensation Survey,” *Compensation and Working Conditions Online* (U.S. Bureau of Labor Statistics, July 2008), <http://www.bls.gov/opub/cwc/cm20080722ar01p1.htm>.

<sup>13</sup> See “U.S. Business Cycle Expansions and Contractions” (National Bureau of Economic Research, 2010), <http://www.nber.org/cycles/cyclesmain.html>.

<sup>14</sup> See Lettau, Lowenstein, and Cushner, “Explaining Differential Growth Rates of the ECI and ECEC.”

<sup>15</sup> See Foster, “Union-nonunion Wage Differences, 1997.”