



Selected Characteristics of Private and Public Sector Workers

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Summary

An issue for Congress and state and local governments is whether the pay and benefits of public workers are comparable to those of workers in the private sector. In addition, policymakers are looking at the pay and benefits of public sector employees as a way to reduce budget deficits.

From 1955 to 2011, employment in the private sector increased by 65.5 million jobs (from 43.7 million to 109.3 million), while the number of jobs in the public sector (including federal, state, and local governments) grew by 15.1 million (from 7.0 million to 22.1 million). Since 1975, however, the percentage of all jobs that are in the public sector has fallen from 19.2% to 16.8%.

Union coverage has declined in both the private and public sectors. But, the decline has been greater in the private sector. In 2009, for the first time, a majority of employees covered by a collective bargaining agreement were employed in the public sector. Private sector workers who are covered by a collective bargaining agreement are generally paid higher wages and receive more or better benefits than workers who are not covered by a union contract. In the federal government, except for the Postal Service and some smaller agencies, employees do not bargain over wages.

Differences in the characteristics of full-time workers in the private and public sectors that may affect their relative pay and benefits include the following:

- *Age.* Workers in the public sector are older, on average, than private sector workers. In 2011, 52.1% of full-time public sector workers were between the ages of 45 and 64, compared to 42.8% of full-time private sector workers. Federal workers are older than employees of state and local governments. In 2011, 55.8% of federal workers were between the ages of 45 and 64, compared to 51.9% of state employees and 50.8% of employees of local governments. Workers who have more years of work experience may earn more than workers with less experience.
- *Education.* On average, public sector employees have more years of education than private sector workers. In 2011, 53.7% of workers in the public sector had a bachelor's, advanced, or professional degree, compared to 34.0% of private sector workers. Generally, workers with more education earn more than workers with less education.
- *Occupation.* A larger share of public sector workers than private sector workers are employed in "management, professional, and related occupations." In 2011, 56.3% of public sector workers and 37.1% of private sector workers were employed in these occupations. Workers in management and professional occupations generally earn more than workers in other occupations. Comparisons in the compensation of private and public sector workers that use broad occupational categories may miss differences between detailed occupations. But, many detailed occupations are concentrated in either the private or public sectors. Many detailed occupations may require similar skills, however.
- *Union coverage.* In almost all major occupational categories, union coverage is higher in the public sector than in the private sector.

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An issue for Congress and state and local governments is whether the pay and benefits of public workers are comparable to those of workers in the private sector.¹ The effect of the December 2007-June 2009 recession on government budgets increased the interest of policymakers in the compensation of public sector employees. For FY2012, the Congressional Budget Office (CBO) estimates that the federal deficit will be \$1.1 trillion.² Several state and local governments also face budget shortfalls.³ Many policymakers are looking at the pay and benefits of government employees as a way to reduce budget deficits.⁴

This report begins with an analysis of the trends in employment in the private and public sectors. The public sector is separated into employees of the federal government, state governments, and local governments. Next, the report analyzes selected characteristics of private and public sector workers. These characteristics are often used in comparisons of the compensation of different workers. The report does not, however, compare the actual pay or benefits of private and public sector workers or compare the characteristics of workers to try to explain any differences in the pay and benefits of private and public sector workers.⁵

Trends in Private and Public Sector Employment

This section of the report examines the trends in employment in the private and public sectors. The data are from the Current Employment Statistics (CES) survey, which is an employer survey conducted by the Bureau of Labor Statistics (BLS). Employment includes both full-time and part-time workers. Data are for 1955 to 2011. The beginning year of 1955 is used because that is the first year that the CES survey provides data on the number of employees of state and local governments. In the CES, government employment includes civilian employees only; the military is not included.

¹ Under the Federal Employees Pay Comparability Act of 1990 (FEPCA), the pay of federal employees should be comparable to the pay of other employees who do the same type of work in the same local area. FEPCA is Section 529 of the Treasury, Postal Service and General Government Appropriations Act, 1991 (P.L. 101-509).

² Congressional Budget Office (CBO), *The Budget and Economic Outlook: Fiscal Years 2012 to 2022*, January 2012, p. 1, available at http://www.cbo.gov/sites/default/files/cbofiles/attachments/01-31-2012_Outlook.pdf.

³ According to a report by the Center for Budget and Policy Priorities, 19 states and the District of Columbia are projected to have budget deficits in FY2013. Elizabeth McNichol, Phil Oliff, and Nicholas Johnson, *States Continue to Feel Recession's Impact*, Center for Budget and Policy Priorities, February 27, 2012, Table 2, available at <http://www.cbpp.org/files/9-8-08sfp.pdf>.

⁴ In 2010, President Obama proposed, and Congress approved, a two-year pay freeze for federal civilian employees. The pay freeze applies to calendar years 2011 and 2012. The pay freeze was included in the Continuing Appropriations and Surface Transportation Extensions Act, 2011 (P.L. 111-322). On February 1, 2012, the U.S. House of Representatives approved legislation, H.R. 3835, that would extend the pay freeze for federal civilian workers for one more year (to the end of 2013). For FY2013, President Obama has proposed a 0.5% pay increase for federal civilian workers. U.S. Office of Management and Budget, *Analytical Perspectives, Budget of the United States Government, FY2013*, Chapter 11, p. 114, available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/management.pdf>.

President Obama's Fiscal Commission proposed a three-year pay freeze for federal civilian employees and recommended that federal workers contribute more to their health insurance and retirement plans. The National Commission on Fiscal Responsibility and Reform, *The Moment of Truth: Report of the National Commission on Fiscal Responsibility and Reform*, December 2010, pp. 26, 40, 44-45, available at http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf.

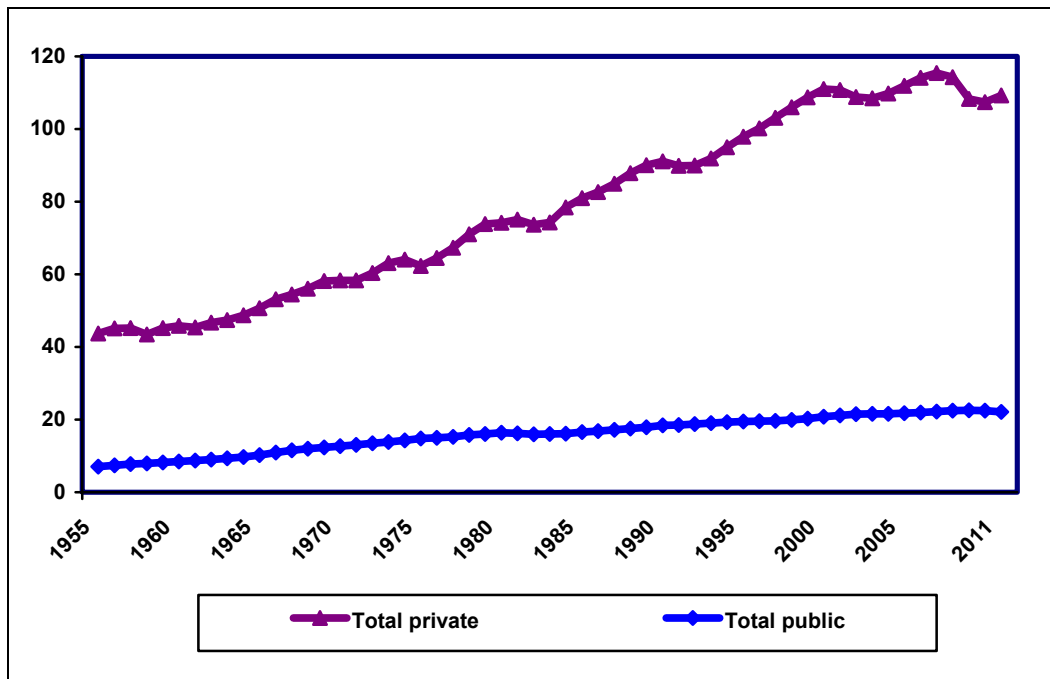
⁵ For an analysis of the compensation of private and public sector workers, see Congressional Budget Office, *Comparing the Compensation of Federal and Private-Sector Employees*, January 2012, available at <http://cbo.gov/sites/default/files/cbofiles/attachments/01-30-FedPay.pdf>.

From 1955 to 2011, employment grew in both the private and public sectors. Most of the growth in public sector employment was at the state and local level. However, the number of jobs in the public sector as a share of total employment has fallen since 1975.

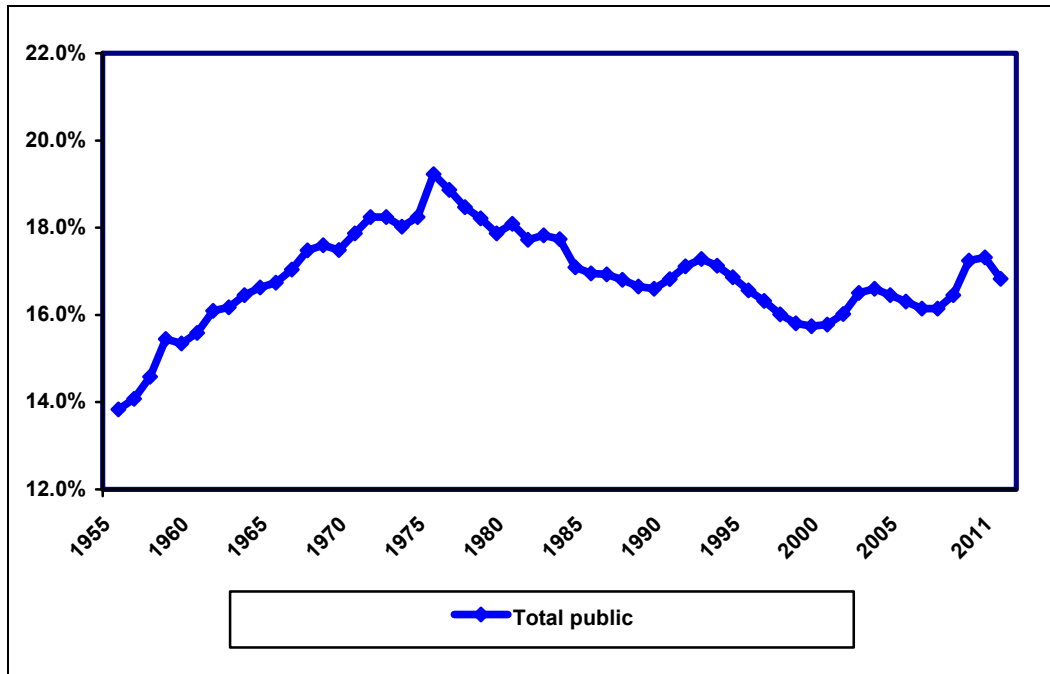
From 1955 to 2011, employment in the private sector increased by 65.5 million jobs (from 43.7 million to 109.3 million after rounding), while employment in the public sector grew by 15.1 million jobs (from 7.0 million to 22.1 million). Despite the larger increase in the number of private sector jobs, public sector employment grew by 215%, compared to an increase of 150% in the private sector (see **Figure 1**).

In 1955, public sector employment accounted for 13.8% of total employment in the United States. This percentage increased to 19.2% in 1975, but fell to 16.8% in 2011 (see **Figure 2**). Conversely, from 1955 to 1975 private sector employment fell from 86.2% to 80.8% of total employment, before increasing to 83.2% in 2011.

Figure 1. Private and Public Sector Employment, 1955 to 2011
(in millions)



Source: Bureau of Labor Statistics, Current Employment Statistics survey, available at <http://stats.bls.gov/ces/>.

Figure 2. Public Sector Employment as a Share of Total Employment, 1955 to 2011

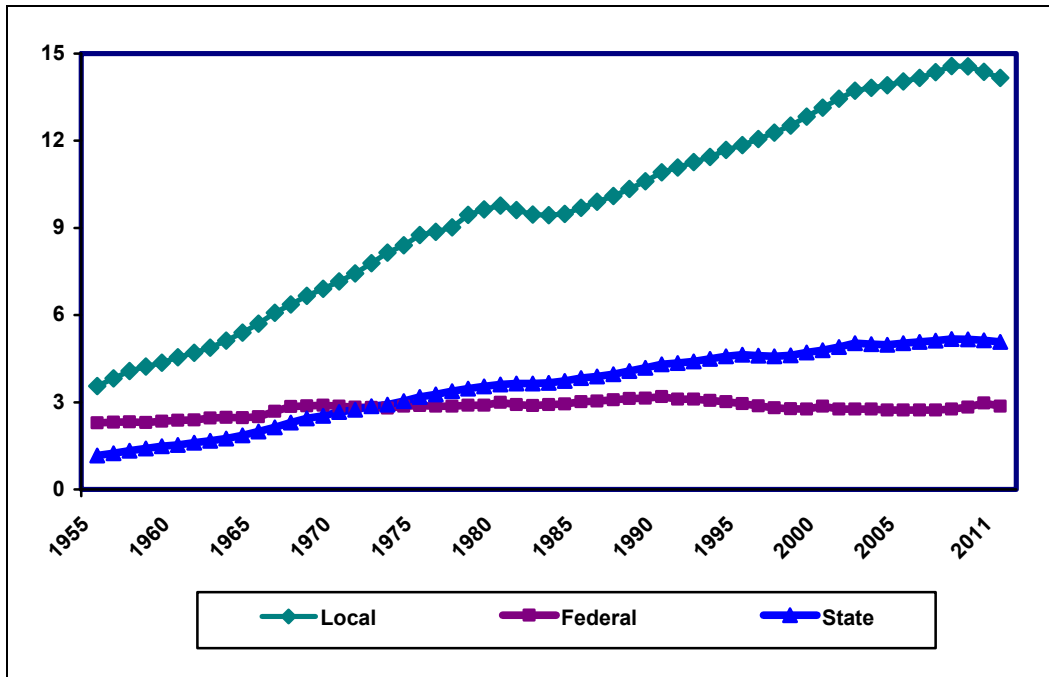
Source: Bureau of Labor Statistics, Current Employment Statistics survey, available at <http://stats.bls.gov/ces/>.

From 1955 to 2011, the growth in public sector employment occurred mainly among state and local governments. At the local level, employment rose by an estimated 10.6 million jobs (from 3.6 million to 14.2 million). Employment at the state level rose by about 3.9 million jobs (from 1.2 million to 5.1 million) (see **Figure 3**).

From 1955 to 2011, employment at the local level increased from 7.0% to 10.8% of total employment (an increase of 3.8 percentage points). Among state governments, employment increased from 2.3% to 3.9% of total employment (an increase of 1.6 percentage points) (see **Figure 4**).

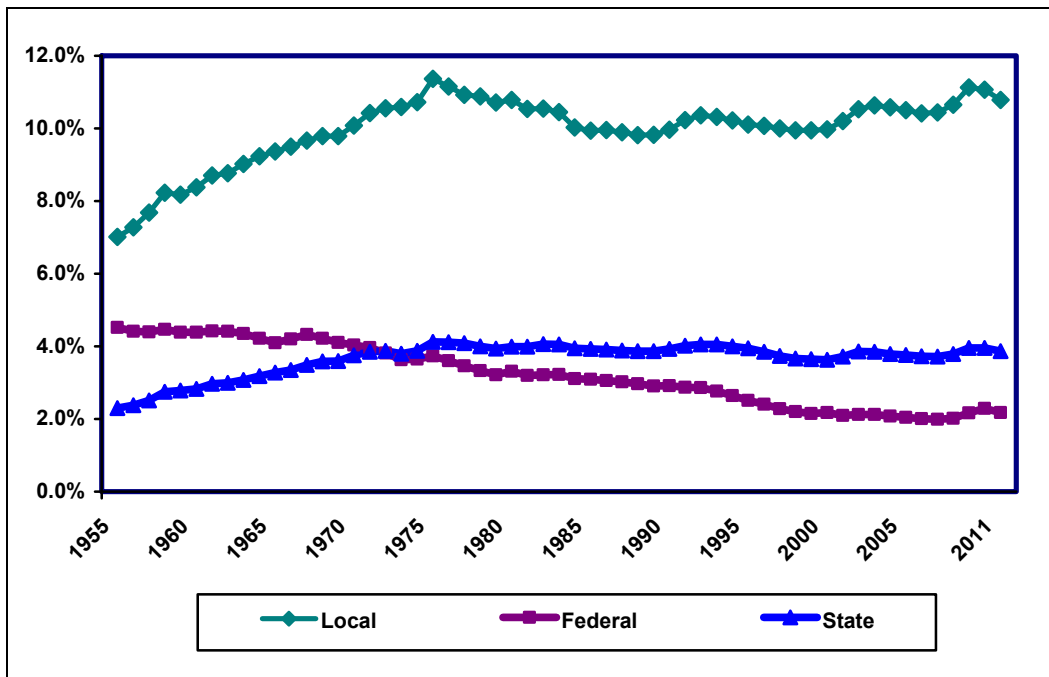
Including the Postal Service, in 2011 the federal government employed an estimated 563,000 more workers than in 1955 (an increase from 2.3 million to 2.9 million) (see **Figure 3**). Despite the increase in the number of federal jobs, federal employment as a share of total employment fell from 4.5% in 1955 to 2.2% in 2011 (a decline of 2.3 percentage points) (see **Figure 4**).

Figure 3. Public Sector Employment, by Level of Government, 1955 to 2011
(in millions)



Source: Bureau of Labor Statistics, Current Employment Statistics survey, available at <http://stats.bls.gov/ces/>.

Figure 4. Public Sector Employment, by Level of Government, as a Share of Total Employment, 1955 to 2011



Source: Bureau of Labor Statistics, Current Employment Statistics survey, available at <http://stats.bls.gov/ces/>.

Union Coverage

A worker who is covered by a collective bargaining agreement may or may not be required to pay union dues. A worker who is covered by a union contract may work in a right-to-work state and is not required to pay dues.⁶ Federal workers who are covered by a union contract are not required to pay dues. Some state and local government employees who are covered by a collective bargaining agreement are not required to pay dues.

The number of American workers covered by a collective bargaining agreement has declined since 1979. In 1979, an estimated 23.5 million workers were covered by a union contract. By 2011, the number had fallen to 16.3 million.⁷ In 2009, for the first time, a majority of workers covered by a collective bargaining agreement were employed in the public sector. In 2011, an estimated 8.3 million public sector workers and 8.0 million private sector workers were covered by a collective bargaining agreement.⁸

Figure 5 shows the percentage of private and public sector workers who were covered by a collective bargaining agreement. Because union coverage is higher in the Postal Service than in the rest of the federal government, **Figure 5** shows the Postal Service and the rest of the federal government separately. The data are for 1983 through 2011. The beginning year of 1983 is used because that is the year when the CPS began collecting monthly data on union coverage.

In 2011, an estimated 51.1% of workers covered by a collective bargaining agreement were employed in the public sector. Most public sector workers covered by a collective bargaining agreement were employed by local governments (30.4% of all covered workers). An estimated 13.4% of covered workers were employed by state governments and 7.3% were employed by the federal government.

From 1983 to 2011, the percentage of workers covered by a collective bargaining agreement fell from 23.6% to 13.1% (a decline of 10.5 percentage points). Since 1983, the percentage of workers represented by a union has fallen in both the private and public sectors. In the private sector, union coverage fell from 18.8% to 7.7% of all wage and salary workers (a decline of 11.1 percentage points). In the public sector, union coverage fell from 45.5% to 40.7% (a decline of 4.8 percentage points).

In the public sector, the largest decrease in union coverage was in the Postal Service, where coverage fell from 83.5% of workers in 1983 to 73.3% of workers in 2011 (a decline of 10.2

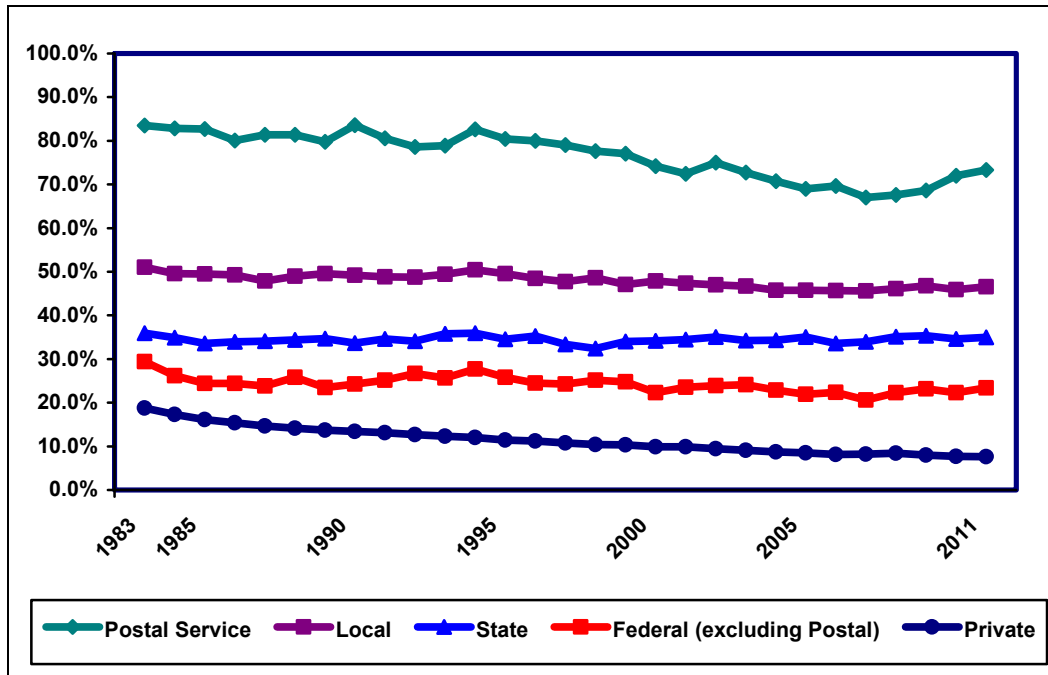
⁶ Section 14(b) of the Taft-Hartley Act (i.e., the Labor Management Relations Act of 1947, P.L. 80-101) allows states to enact right-to-work laws, which do not allow collective bargaining agreements to include union security agreements. A union security agreement may require employees to pay union dues after being hired. An employee who objects to the use of his or her dues for political purposes may pay a reduced agency fee (which covers the cost of collective bargaining and contract administration and enforcement).

⁷ Barry T. Hirsch and David A. Macpherson, *Union Membership and Coverage Database from the Current Population Survey*, available at <http://www.unionstats.com>.

⁸ The National Labor Relations Act (NLRA) governs labor-management relations in most of the private sector. Labor-management relations in the railroad and airlines industries are governed by the Railway Labor Act (RLA) of 1926. In the federal sector, labor management relations are governed by the Federal Service Labor-Management Relations Statute (FSLMRS, Title VII of the Civil Service Reform Act of 1978, P.L. 95-454). Labor-management relations for state and local workers are governed by state and local law. For an explanation of collective bargaining rights in the public sector, see CRS Report R41732, *Collective Bargaining and Employees in the Public Sector*, by Jon O. Shimabukuro.

percentage points). In the rest of the federal government, coverage fell from 29.4% to 23.4% (a decline of 6.0 percentage points). Coverage fell from 51.0% to 46.6% in local governments (a decline of 4.5 percentage points after rounding) and from 35.9% to 34.9% in state governments (a decline of 1.0 percentage point).

Figure 5. Percent of Workers Covered by a Collective Bargaining Agreement, 1983-2011



Source: Barry T. Hirsch and David A. Macpherson, *Union Membership and Coverage Database from the CPS*, available at <http://www.unionstats.com>.

Union coverage can affect the relative pay of union and nonunion workers. Workers who are represented by a union generally receive higher wages and more or better benefits than workers who are not represented by a union.⁹ Union coverage is higher in the public sector than in the private sector. To the extent that public sector workers can bargain over pay and benefits, greater unionization in the public sector could raise the pay of public sector workers compared to the pay of private sector workers.

In the federal government, most employees do not bargain over wages. Salaried employees generally receive an annual pay adjustment and a locality pay adjustment, effective each January. Federal employees who are paid by the hour usually receive pay adjustments equal to those received by salaried workers in the same locality.¹⁰

⁹ Several studies have attempted to measure the difference in earnings between union and nonunion workers. The results vary. In general, however, most studies conclude that, after controlling for individual, occupational, and labor market characteristics, the wages of union workers may be 10% to 30% higher than the wages of nonunion workers. See CRS Report RL32553, *Union Membership Trends in the United States*, by Gerald Mayer.

¹⁰ Although the law has never been implemented as enacted, adjustments to federal white-collar pay are based on the Federal Employees Pay Comparability Act of 1990 (FEPCA). See CRS Report RL34463, *Federal White-Collar Pay: FY2009 and FY2010 Salary Adjustments*, by Barbara L. Schwemle. Also see CRS Report RL33245, *Legislative*, (continued...)

Nevertheless, some federal workers can bargain over wages. The Postal Reorganization Act of 1970 (P.L. 91-375) gave postal workers the right to bargain over wages and benefits (excluding retirement benefits).¹¹ Air traffic controllers can bargain over wages because the Federal Aviation Administration (FAA) is required to recognize a union chosen by a majority of employees, but is allowed to develop its own pay system.¹² The Tennessee Valley Authority (TVA) has a long-standing policy that allows employees to bargain over wages.¹³

Individual, Occupational, and Employer Characteristics of Private and Public Sector Workers

This section of the report examines selected characteristics that may affect the relative pay of private and public sector workers.¹⁴ These characteristics include age, gender, educational attainment, and the distribution of employees by occupation. The data are from the monthly Current Population Survey (CPS) and the Annual Social and Economic (ASEC) Supplement to the CPS. The CPS is a household survey conducted by the U.S. Census Bureau for BLS. The monthly CPS does not include persons on active duty in the military. The ASEC Supplement includes military personnel living in civilian households.

The analysis in this section covers the period from 1976 to 2011 and includes both wage and salary workers and self-employed workers. The analysis is for workers ages 18 to 64 who worked full-time. Full-time workers are persons who usually work 35 hours or more a week. In 2011, 81.3% of workers ages 18 to 64 had full-time jobs. More workers in the public sector than in the private sector worked full-time (87.0% and 80.3%, respectively).¹⁵

Age

Employees in the public sector are older than private sector workers. In 2011, 52.1% of full-time public sector workers were between the ages of 45 and 64, compared to 42.8% of full-time private sector workers (see **Figure 6**). Federal workers are older than employees of state and local

(...continued)

Executive, and Judicial Officials: Process for Adjusting Pay and Current Salaries, by Barbara L. Schwemle.

¹¹ U.S. Government Accountability Office (GAO), *Comparison of Collectively Bargained and Administratively Set Pay Rates for Federal Employees*, GAO/FPCD-82-49, July 2, 1982, p. 10, available at <http://archive.gao.gov/d41t14/118922.pdf>.

¹² U.S. Government Accountability Office (GAO), *Human Capital: Selected Agencies' Statutory Authorities Could Offer Options in Developing a Framework for Governmentwide Reform*, GAO-05-398R, April 21, 2005, pp. 8, 31-32, available at <http://www.gao.gov/new.items/d05398r.pdf>.

¹³ The Tennessee Valley Authority (TVA) Act of 1933 does not give TVA employees the right to engage in collective bargaining. However, a policy adopted by the TVA in 1935 allows employees to organize and bargain collectively. U.S. Government Accountability Office (GAO), *Labor-Management Relations: Tennessee Valley Authority Situation Needs to Improve*, GAO/GGD-91-129, September 1991, p. 13, available at <http://archive.gao.gov/d18t9/145065.pdf>.

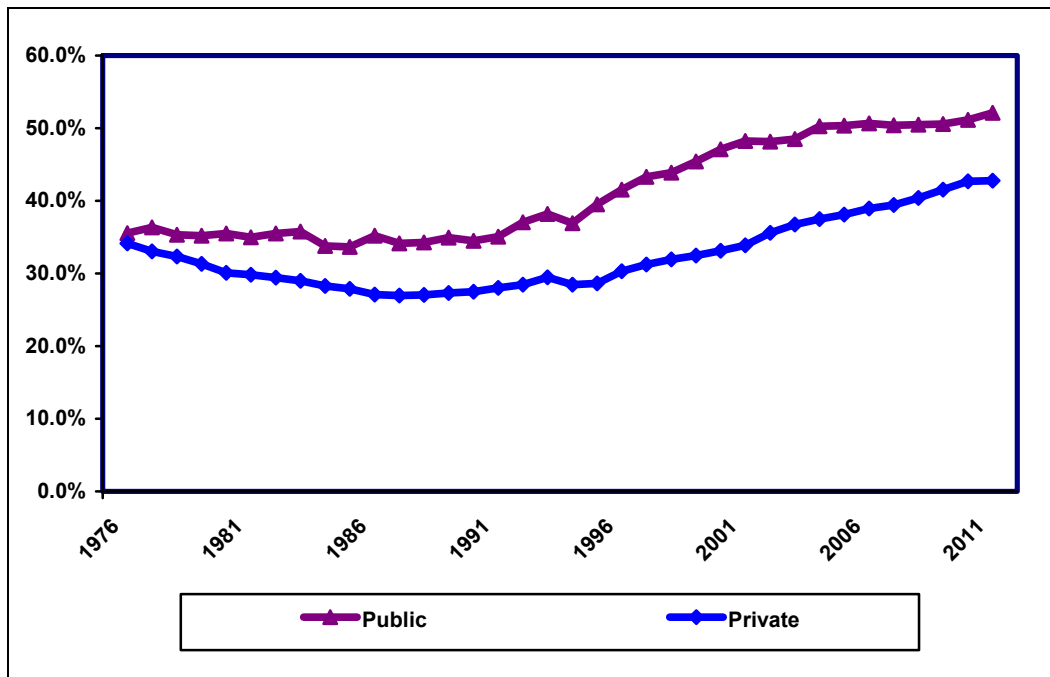
¹⁴ For different views on the pay of federal workers, see U.S. Congress, House Committee on Oversight and Government Reform, Subcommittee on Federal Workforce, U.S. Postal Service and Labor Policy, *Are Federal Workers Overpaid?*, 112th Cong. 1st sess., March 9, 2011, available at <http://oversight.house.gov/>.

¹⁵ CRS analysis of data from the monthly Current Population Survey (CPS).

governments. In 2011, 55.8% of federal workers were between the ages of 45 and 64, compared to 51.9% of state employees and 50.8% of employees of local governments.

Although the difference has narrowed since 2001, the age gap between public and private sector workers was greater in 2011 than in 1976. In 1976, 35.5% of public sector workers and 34.1% of private sector workers were between the ages of 45 and 64, a difference of 1.4 percentage points. In 2011, the difference was 9.4 percentage points (after rounding): 52.1% of public sector workers were between the ages of 45 and 64, compared to 42.8% of private sector workers (see Figure 6).

Figure 6. Percent of Full-Time Workers Who are Between the Ages of 45 and 64, 1976 to 2011



Source: CRS analysis of data from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS).

Older workers typically have more years of work experience than younger workers. Employees with more work experience generally earn more than workers with less experience.¹⁶ Thus, the age difference between private and public sector workers may indicate that public sector workers have more years of experience than private sector workers. In turn, a difference in work experience may be reflected in differences in earnings between private and public sector workers.

¹⁶ Within occupations, earnings generally increase with years of experience. Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy*, 7th ed. (Reading, MA, Addison-Wesley, 2000), p. 418.

Gender

Women hold a higher share of jobs in the public sector than in the private sector, and this difference has increased over time. The higher share of jobs held by women in the public sector is due to the higher percentage of jobs held by women in state and local governments.

In 2011, women held almost three-fifths of full-time jobs in state and local governments (58.8% for both state and local governments), but approximately two-fifths of full-time jobs in the federal government and in the private sector (40.4% and 41.5%, respectively).

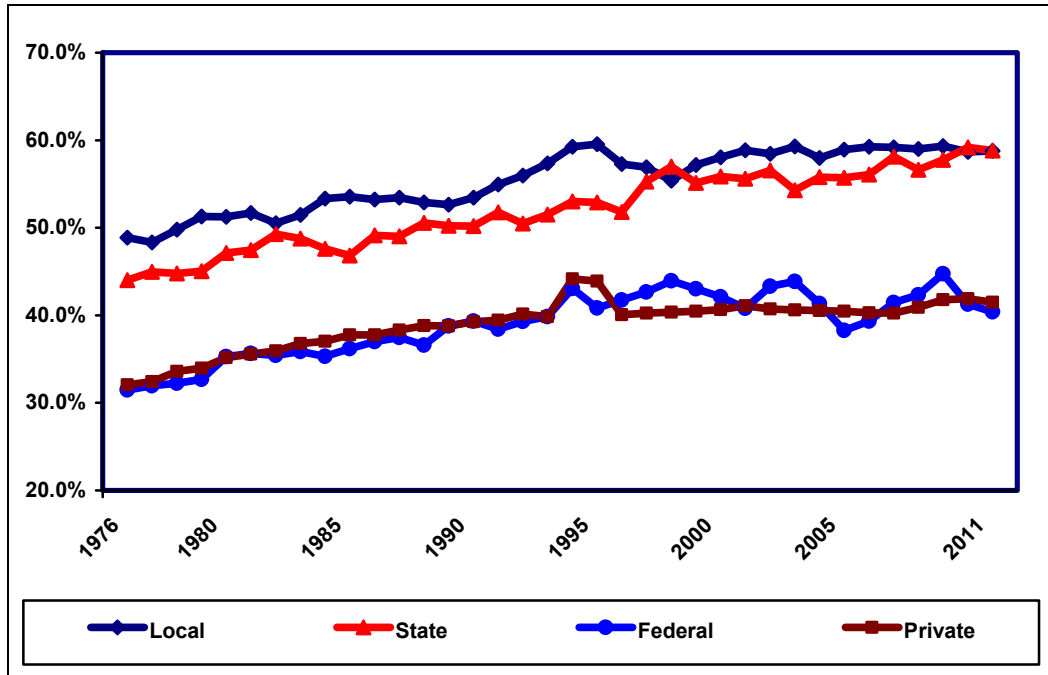
The greatest increase in the percentage of jobs held by women has been in state governments. From 1976 to 2011, the share of state jobs held by women increased by 14.8 percentage points (from 44.0% to 58.8%). By contrast, over the same period the share of jobs held by women in local governments increased by 9.9 points (from 48.9% to 58.8%), in the federal government by 8.9 points (from 31.5% to 40.4%), and in the private sector by 9.4 points (from 32.0% to 41.5%, after rounding) (see **Figure 7**).

The effect of the increased employment of women on the difference in pay between private and public sector workers may be an empirical question. The share of jobs held by women in the public sector has increased more than the share of jobs held by women in the private sector.¹⁷ On average, women earn less than men. But, evidence indicates that the pay gap between men and women is narrower in the public sector than in the private sector.¹⁸ Thus, the greater increase in employment of women in the public sector, where the pay gap between men and women is narrower than in the private sector, should narrow any differences in pay between the private and public sectors. On the other hand, the pay gap between men and women has narrowed, which may affect the relative pay of private and public sector workers.¹⁹

¹⁷ In 1976, 32.4% of full-time private sector jobs were held by women ages 18 to 64. In the public sector, 43.9% of full-time jobs were held by women. By 2011, these percentages had increased to 41.5% and 55.2%, respectively—a 9.1-point increase in the private sector and a 11.4-point increase (after rounding) in the public sector. CRS analysis of data from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS).

¹⁸ U.S. Government Accountability Office (GAO), *Women's Pay: Gender Pay Gap in the Federal Workforce Narrows as Differences in Occupation, Education, and Experience Diminish*, GAO-09-279, March 2009, p. 9, available at <http://www.gao.gov/new.items/d09279.pdf>. Robert G. Gregory and Jeff Borland, "Recent Developments in Public Sector Labor Markets," *Handbook of Labor Economics*, vol. 3C, ed. by Orley Ashenfelter and David Card (Amsterdam: Elsevier, 1999), p. 3611.

¹⁹ In 2010, the median earnings of women employed full-time, year-round were 77.4% of the median earnings of men who worked full-time, year-round (\$36,931 for women and \$47,715 for men). This percentage was up from 60.2% in 1976 (\$28,219 for women and \$46,880 for men). U.S. Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States: 2010*, P60-239, September 2011, Table A-5, available at <http://www.census.gov/prod/2011pubs/p60-239.pdf>. For a discussion of explanations of the differences in earnings by gender, see CRS Report 98-278, *The Gender Wage Gap and Pay Equity: Is Comparable Worth the Next Step?*, by Linda Levine.

Figure 7. Percent of Full-Time Workers Who are Female, 1976 to 2011

Source: CRS analysis of data from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS).

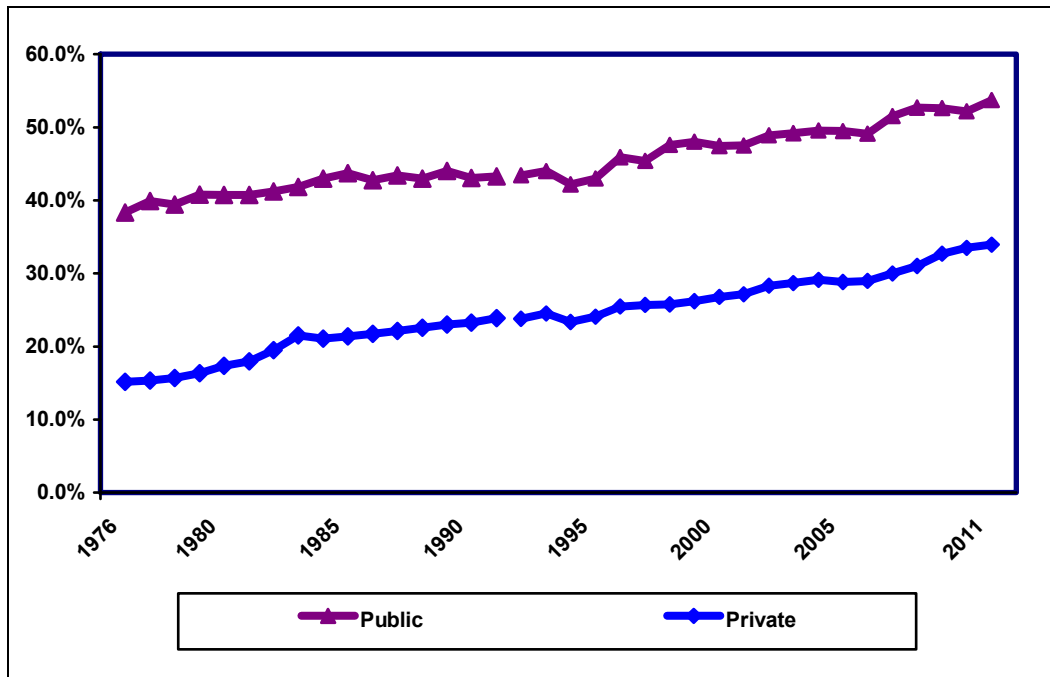
Education

On average, public sector employees have more years of education than private sector workers. In 2011, 53.7% of workers in the public sector had a bachelor's, advanced, or professional degree, compared to 34.0% of private sector workers²⁰ (see **Figure 8**).

State and local government employees are more likely than federal workers to have a bachelor's, advanced, or professional degree. In 2011, 56.3% of state government workers and 54.5% of local government workers had at least a bachelor's degree, compared to 47.5% of workers in the federal government (see **Figure 9**).

²⁰ Advanced degrees include master's and doctorate degrees. Professional degrees include degrees in law, medicine, and business administration.

Figure 8. Percent of Full-Time Workers with a Bachelor's, Advanced, or Professional Degree, Private and Public Sectors, 1976 to 2011



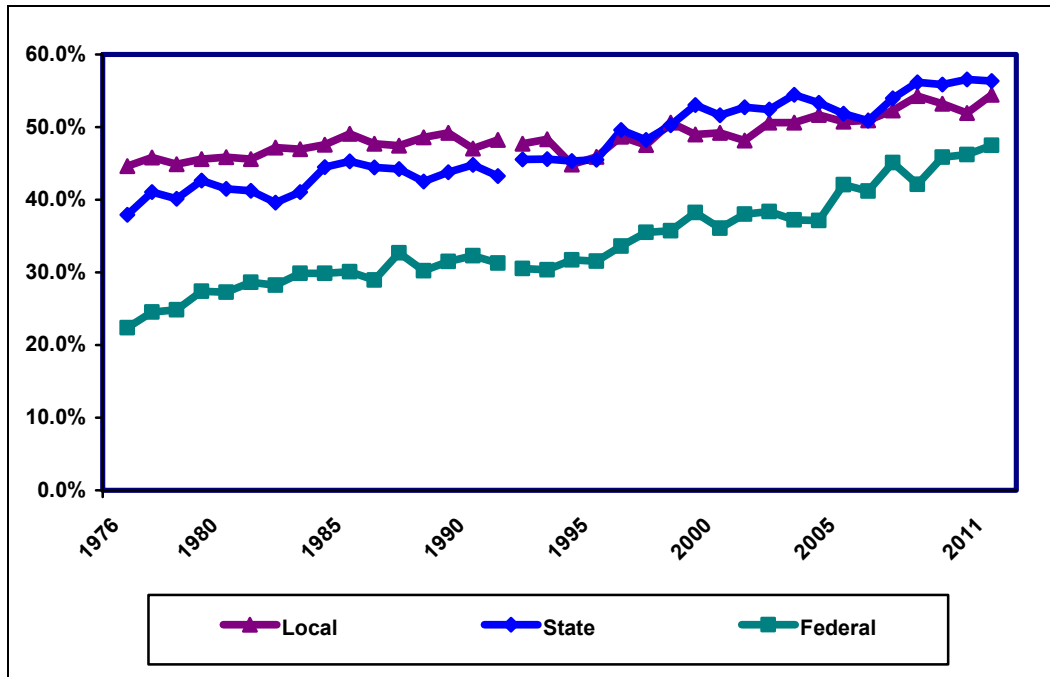
Source: CRS analysis of data from the Annual Social and Economic (ASEC) Supplement to the Current Population Survey (CPS).

Notes: Because of changes in 1992 in the way educational attainment is coded in the CPS, data for the years 1992 and later are not comparable to earlier years. The data for the years 1976 to 1991 are for persons who completed 16 or more years of education. The data for the years 1992 to 2011 are for persons who received a bachelor's, advanced, or professional degree. See the discussion of "CPS Values for Educational Attainment" in the **Appendix**.

Beginning in 1992, the CPS changed the way educational attainment is coded. For years before 1992, the CPS reported the number of years of education that a person completed. In 1992, the CPS began to report whether a person received a degree. Therefore, data for the years 1992 and later are not totally comparable to earlier years. (See the discussion of "CPS Values for Educational Attainment" in the **Appendix**.) Because of the change in the education variable in the CPS, the percentage point changes in educational attainment discussed in this section are the sum of the percentage point changes over two periods: 1976 to 1991, and 1992 to 2011.

From 1976 to 2011, educational attainment improved more in the private sector than in the public sector. From 1976 to 2011, the percentage of private sector workers who completed 16 or more years of education increased by 18.8 percentage points. This increase compares to a 15.2-point increase for public workers. The largest gains among public workers were among federal workers, a 25.8-point increase, compared to a 16.1-point increase for state workers and a 10.4-point increase for local government workers (see **Figure 9**).

Figure 9. Percent of Full-Time Workers with a Bachelor's, Advanced, or Professional Degree, by Level of Government, 1976 to 2011



Source: CRS analysis of data from the Annual Social and Economic (ASEC) Supplement to the Current Population Survey (CPS).

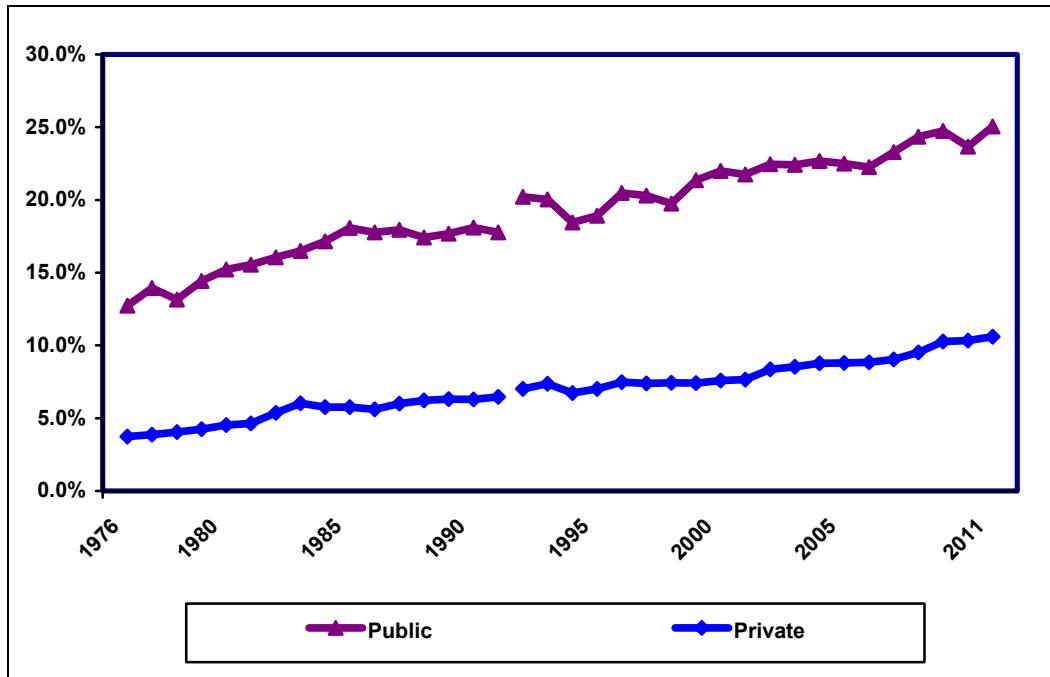
Notes: Because of changes in 1992 in the way educational attainment is coded in the CPS, data for the years 1992 and later are not comparable to earlier years. The data for the years 1976 to 1991 are for persons who completed 16 or more years of education. The data for the years 1992 to 2011 are for persons who received a bachelor's, advanced, or professional degree. See the discussion of "CPS Values for Educational Attainment" in the **Appendix**.

On the other hand, from 1976 to 2011 the percentage of workers with post-graduate education increased more in the public sector than in the private sector. During the period, the percentage of public sector workers with post-graduate education (i.e., who completed more than 16 years of education from 1976 to 1991 or who received an advanced or professional degree from 1992 to 2011) increased by 9.9 points, compared to a 6.3-point increase for private sector workers (see **Figure 10**).

Workers with more education generally earn more than workers with less education.²¹ Other things being equal, the higher educational attainment of public sector workers, especially workers with an advanced or professional degree, likely affects the relative pay of private and public sector workers.

²¹ CRS Report R41329, *The Rise in Wage Inequality by Level of Education, 1975 to 2008*, by Gerald Mayer.

Figure 10. Percent of Full-Time Workers with an Advanced or Professional Degree, Private and Public Sectors, 1976 to 2011



Source: CRS analysis of data from the Annual Social and Economic (ASEC) Supplement to the Current Population Survey (CPS).

Notes: Because of changes in 1992 in the way educational attainment is coded in the CPS, data for the years 1992 and later are not comparable to earlier years. The data for the years 1976 to 1991 are for persons who completed more than 16 years of education. The data for the years 1992 to 2011 are for persons who received an advanced or professional degree. See the discussion of “CPS Values for Educational Attainment” in the **Appendix**.

Occupation

The CPS has data on both major and detailed occupational categories. A comparison of private and public sector employment using major occupational categories shows that all major occupations are common in both the private and public sectors. An analysis of detailed occupations, however, shows that many occupations are concentrated in either the private or public sectors.

Major Occupations

Table 1 shows the distribution of employment in the private and public sectors by five broad occupational categories. These five categories are subdivided into 22 major occupations. The data are for a worker’s occupation at the time of the monthly CPS. The estimates are averages for the 12 months of calendar year 2011. A worker’s occupation at the time of the CPS survey is used in order to identify whether a worker’s job is covered by a collective bargaining agreement.

All of the occupations in **Table 1** are common in both the private and public sectors. However, a larger share of public sector than private sector workers were employed in “management, professional, and related occupations” (56.3% of public sector workers, compared to 37.1% of

private sector workers).²² More public sector workers are employed in these occupations because 25.5% of all public sector workers were employed in “education, training, and library” occupations, compared to 2.3% of all private sector workers. Public sector employees in these occupations worked mainly for state and local governments (25.0% of employees in state governments and 34.5% of employees in local governments). In general, the median weekly earnings of full-time workers employed in management, professional, and related occupations are greater than the earnings of workers in other occupations.²³

A larger percentage of workers in the public sector than the private sector were employed in “protective service” occupations (11.5% and 0.9%, respectively). On the other hand, more workers in the private sector were employed in “sales and related” occupations (11.5% in the private sector and 0.8% in the public sector).

Union Coverage by Major Occupation

Table 1 also shows the percentage of private and public sector workers in each major occupation who were covered by a collective bargaining agreement. In all major occupations for which data are available (21 of 22 occupations), union coverage was higher in the public sector than in the private sector.

In the private sector, 7.5% of all full-time employees were covered by a collective bargaining agreement. But, only 2.5% of management employees and 1.4% of employees in legal occupations were represented by a union. By contrast, 17.6% of workers in education, training, and library occupations; 15.9% of workers in transportation and material moving occupations; 15.7% of workers in construction and extraction occupations; 15.3% of workers in installation, maintenance, and repair occupations; and 14.5% of production workers were represented by a union.

In the public sector, 43.3% of full-time employees were covered by a collective bargaining agreement. In management occupations, 25.1% of employees were represented by a union. But, 58.5% of employees in education, training, and library occupations were covered, as were 54.6% of employees in protective service occupations. A majority of employees in the latter two occupations are employed by local governments (see **Table A-1**).

²² In the CPS, management occupations include executives, managers, and administrators. Supervisors are not covered by the NLRA (29 U.S.C. §152(11)). The FSLMRS does not cover supervisors or managers (5 U.S.C. §7103(a)(2)). These two statutes cover employees who are not supervisors, but who may be classified as managers in the CPS.

²³ U.S. Department of Labor, Bureau of Labor Statistics, *Median Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex*, available at <http://stats.bls.gov/cps/cpsaat39.pdf>.

Table I. Percent of Workers Employed by Sector and Major Occupation and Covered by a Collective Bargaining Agreement, 2011

Occupation	Percent of Workers Employed by Sector and Major Occupation						Percent of Workers Covered by a Collective Bargaining Agreement					
	Total	Private	Public	Federal	State	Local	Total	Private	Public	Federal	State	Local
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	13.2%	7.5%	43.3%	34.0%	37.3%	50.3%
Management, professional, and related	40.2%	37.1%	56.3%	48.5%	61.9%	56.0%	13.5%	5.1%	42.9%	21.6%	36.3%	54.2%
Management	12.1%	12.9%	7.9%	10.8%	8.4%	6.5%	4.8%	2.5%	25.1%	19.6%	26.2%	27.6%
Business and financial operations	5.1%	5.2%	4.8%	9.9%	5.6%	2.3%	6.3%	2.6%	27.9%	25.5%	30.4%	28.1%
Computer and mathematical science	3.1%	3.2%	2.7%	6.1%	2.8%	1.3%	4.7%	1.9%	23.0%	15.4%	27.2%	30.9%
Architecture and engineering	2.4%	2.4%	2.0%	5.3%	1.7%	1.0%	8.2%	5.2%	27.4%	24.3%	28.4%	32.5%
Life, physical, and social science	1.0%	0.8%	2.2%	3.7%	3.1%	1.1%	13.5%	3.6%	32.1%	15.1%	38.2%	42.9%
Community and social service	1.8%	1.3%	4.2%	1.6%	6.2%	3.9%	20.3%	6.2%	43.7%	16.4%	38.5%	52.9%
Legal	1.4%	1.3%	1.7%	2.9%	1.9%	1.1%	5.7%	1.4%	23.5%	20.9%	25.0%	24.5%
Education, training, and library	5.9%	2.3%	25.5%	2.5%	25.0%	34.5%	45.4%	17.6%	58.5%	17.6%	45.5%	65.2%
Arts, design, entertainment, sports, and media	1.8%	1.9%	0.8%	0.8%	1.2%	0.5%	6.0%	4.5%	25.7%	n.a.	22.6%	34.7%
Healthcare practitioner and technical	5.6%	5.8%	4.6%	5.0%	5.7%	3.8%	14.1%	10.8%	35.8%	32.1%	26.9%	45.6%
Service	14.2%	13.4%	18.9%	11.6%	17.2%	22.6%	14.4%	6.0%	46.4%	28.2%	42.7%	51.5%
Healthcare support	2.1%	2.2%	1.2%	1.1%	1.8%	0.8%	10.3%	8.1%	32.2%	27.9%	28.4%	39.3%
Protective service	2.5%	0.9%	11.5%	7.3%	9.4%	14.3%	41.2%	8.1%	54.6%	28.8%	48.7%	61.7%
Food preparation and serving related	3.7%	4.1%	1.1%	0.7%	1.1%	1.3%	5.5%	4.5%	24.7%	n.a.	27.1%	25.7%
Building and grounds cleaning and maintenance	3.4%	3.4%	3.7%	2.0%	2.9%	4.8%	12.5%	7.1%	38.8%	32.2%	38.1%	40.1%
Personal care and service	2.6%	2.8%	1.4%	0.5%	2.0%	1.3%	6.4%	4.4%	28.3%	n.a.	42.2%	16.1%
Sales and office	22.4%	23.6%	15.6%	28.6%	14.1%	11.6%	8.2%	4.2%	41.1%	54.1%	34.7%	33.8%
Sales and related	9.8%	11.5%	0.8%	1.3%	0.7%	0.6%	3.1%	2.9%	20.6%	10.4%	41.6%	14.5%
Office and administrative support	12.6%	12.2%	14.8%	27.2%	13.4%	11.0%	12.2%	5.4%	42.2%	56.3%	34.3%	34.8%
Natural resources, construction, and maintenance	10.5%	11.6%	5.0%	6.0%	3.9%	5.2%	16.6%	14.6%	41.2%	39.2%	41.4%	42.1%
Farming, fishing, and forestry	0.7%	0.8%	0.2%	0.5%	0.2%	0.0%	3.6%	2.6%	n.a.	n.a.	n.a.	n.a.
Construction and extraction	5.7%	6.3%	2.5%	1.9%	2.1%	2.9%	17.5%	15.7%	41.7%	41.7%	44.1%	40.6%
Installation, maintenance, and repair	4.1%	4.4%	2.3%	3.6%	1.6%	2.3%	17.6%	15.3%	41.5%	38.3%	38.7%	44.7%
Production, transportation, and material moving	12.7%	14.3%	4.2%	5.3%	2.9%	4.6%	16.7%	15.2%	44.7%	45.5%	35.5%	47.7%
Production	6.7%	7.6%	1.5%	1.8%	1.1%	1.6%	15.3%	14.5%	37.3%	40.0%	30.6%	38.8%
Transportation and material moving	6.0%	6.6%	2.7%	3.5%	1.8%	3.0%	18.2%	15.9%	48.7%	48.4%	38.5%	52.5%

Source: CRS analysis of monthly data from the Current Population Survey (CPS). Estimates are monthly averages for 2011.

Notes: Table A-1 in the Appendix shows the numbers used to calculate the percentages in Table I. Following BLS practice, in Table I percentages are not shown if the denominator is 35,000 workers or less. These cells are marked as "n.a.," which means that estimates are not available. Details may not sum to totals due to rounding.

Detailed Occupations

Broad occupational categories may not fully distinguish between detailed occupations that are concentrated in either the private or public sectors. The **Appendix** shows the top 100 occupations, by the number of persons employed full-time, in the private and public sectors. In 2011, the top 100 occupations in the private and public sectors accounted for 75.1% of total full-time employment. In the private sector, the top 100 occupations accounted for 73.3% of all full-time workers. In the public sector, the top 100 occupations accounted for 84.5% of full-time employment.

Pay comparisons between the private and public sectors that rely on broad occupational categories may not capture differences in detailed occupations. On the other hand, pay comparisons that use detailed occupations may be difficult if employment in the occupation is concentrated in either the private or public sectors. For example, in 2011 12.9% of full-time jobs in the private sector and 7.9% of full-time jobs in the public sector were in management (see **Table 1**). But, 96.7% of chief executives worked in the private sector (see **Table A-2**). Similarly, 99.5% of first-line supervisors of retail sales workers and 96.9% of first-line supervisors of nonretail sales workers were employed in the private sector (see **Table A-3**). On the other hand, virtually all first-line supervisors of police officers and detectives were employed in the public sector (see **Table A-4**).

On average, chief executives probably earn more, and first-line supervisors probably earn less, than mid-level managers. Whether employed in the private or public sectors, management occupations may require similar skills.

Metropolitan Area

Figure 11 shows the percentage of private and public sector workers who live in metropolitan areas with populations of 1 million or 5 million or more. The estimates are for a worker's place of residence at the time of the 2011 ASEC Supplement survey.

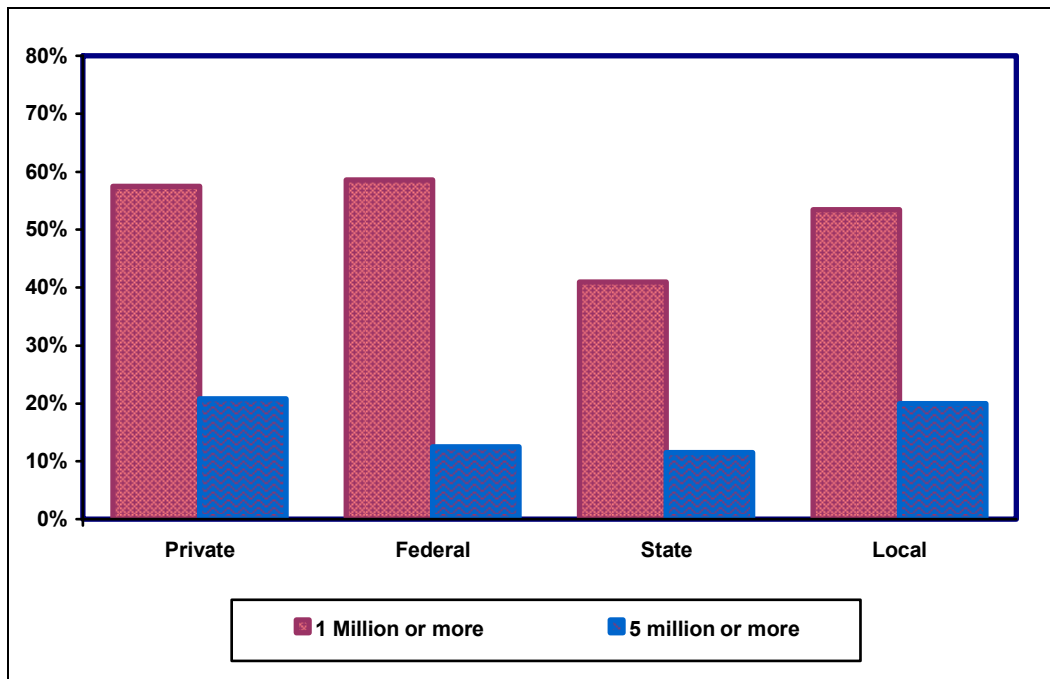
The cost of living is generally higher in metropolitan than nonmetropolitan areas.²⁴ Thus, earnings across areas may vary because of differences in the cost of living.²⁵ In 2011, private and federal employees were as likely to live in metropolitan areas of 1 million or more (57.5% for private sector workers and 58.6% for federal workers). By contrast, state employees were less likely (40.9%) than private or federal workers to live in areas with 1 million people or more.

²⁴ A metropolitan statistical area (MSA) consists of at least one urban area with a population of 50,000 or more and adjacent communities that have a high degree of economic and social integration. Executive Office of the President, Office of Management and Budget, *Metropolitan Statistical Areas, Metropolitan Divisions, Micropolitan Statistical Areas, Combined Statistical Areas, New England City and Town Areas, and Combined New England City and Town Areas*, OMB Bulletin No. 10-02, December 1, 2009, Appendix, p. 2, available at <http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf>.

²⁵ Evidence suggests that when wages across areas are adjusted for differences in the cost of living, part of the difference in observed wages across areas is due to differences in the cost of living. J. Michael DuMond, Barry T. Hirsch, and David A. Macpherson, "Wage Differentials Across Labor Markets and Workers: Does Cost of Living Matter?" *Economic Inquiry*, vol. 37, October 1999, pp. 580, 588.

However, private sector workers were more likely than federal workers to live in areas with 5 million or more people. In 2011, 20.8% of private sector workers lived in the largest metropolitan areas, compared to 12.5% of federal workers. On the other hand, employees of local governments were as likely (20.0%) as private sector workers to live in metropolitan areas of 5 million or more people.

Figure 11. Percent of Full-Time Employees Who Live in Metropolitan Areas With Populations of 1 Million or 5 Million or More, 2011



Source: CRS analysis of data from the Annual Social and Economic (ASEC) Supplement to the Current Population Survey (CPS).

Note: Workers who do not live in metropolitan areas of a million or more live in metropolitan areas of less than a million or in nonmetropolitan areas.

Appendix. Detailed Data and Description of Data Source and Methodology

This appendix provides detailed information on employment and union coverage by occupation in the private and public sectors. It also describes the survey data and methodology used in the report.

Table A-1 shows the data used to calculate the percentages shown in **Table 1**.

Table A-1. Number of Workers Employed by Occupation and Covered by a Collective Bargaining Agreement, 2011

(in 1,000s)

Occupation	Number of Workers Employed by Occupation and Sector						Number of Workers Covered by a Collective Bargaining Agreement					
	Total	Private	Public	Federal	State	Local	Total	Private	Public	Federal	State	Local
Total	106,903	89,999	16,904	3,205	5,115	8,583	14,077	6,761	7,316	1,089	1,910	4,318
Management, professional, and related	42,929	33,405	9,524	1,556	3,164	4,804	5,782	1,693	4,088	336	1,148	2,604
Management	12,933	11,598	1,335	345	431	559	623	288	335	68	113	154
Business and financial operations	5,466	4,660	806	318	287	201	346	121	225	81	87	57
Computer and mathematical science	3,348	2,898	449	196	144	109	158	55	103	30	39	34
Architecture and engineering	2,542	2,203	340	169	88	83	208	115	93	41	25	27
Life, physical, and social science	1,066	693	373	118	159	96	144	25	120	18	61	41
Community and social service	1,880	1,174	706	53	320	333	381	73	308	9	123	176
Legal	1,472	1,184	288	93	99	95	85	17	68	19	25	23
Education, training, and library	6,346	2,027	4,318	80	1,281	2,957	2,881	357	2,525	14	583	1,928
Arts, design, entertainment, sports, and media	1,879	1,750	129	25	62	42	112	79	33	5	14	14
Healthcare practitioner and technical	5,997	5,217	780	160	293	328	844	564	280	51	79	149
Service	15,232	12,042	3,191	371	880	1,940	2,197	717	1,480	104	375	1,000
Healthcare support	2,193	1,993	199	36	92	71	225	161	64	10	26	28
Protective service	2,725	784	1,940	233	480	1,228	1,123	64	1,059	67	234	758
Food preparation and serving related	3,905	3,714	191	22	56	113	214	167	47	3	15	29
Building and grounds cleaning and maintenance	3,659	3,029	629	65	148	416	458	214	244	21	57	167
Personal care and service	2,752	2,521	231	15	104	112	177	111	65	3	44	18
Sales and office	23,918	21,284	2,634	915	723	997	1,967	885	1,082	495	251	336
Sales and related	10,459	10,328	131	43	36	53	325	298	27	4	15	8
Office and administrative support	13,459	10,956	2,503	873	687	944	1,642	586	1,056	491	236	329
Natural resources, construction, and maintenance	11,247	10,406	841	192	201	447	1,863	1,516	347	75	83	188
Farming, fishing, and forestry	779	750	28	15	10	4	28	20	9	5	3	0
Construction and extraction	6,102	5,680	422	62	110	250	1,066	890	176	26	48	102
Installation, maintenance, and repair	4,366	3,976	390	116	81	193	769	607	162	44	31	86
Production, transportation, and material moving	13,576	12,863	714	171	147	395	2,269	1,950	319	78	52	189
Production	7,135	6,883	252	59	55	138	1,095	1,001	94	23	17	54
Transportation and material moving	6,442	5,980	462	112	92	257	1,174	949	225	54	35	135

Source: CRS analysis of monthly data from the Current Population Survey (CPS). Estimates are monthly averages for 2011.

Note: Details may not sum to totals because of rounding.

Table A-2, Table A-3, and Table A-4 show the largest 100 occupations in 2011 in the private and public sectors. The tables show the total number of persons employed, the number of workers employed in the private and public sectors, the percentage of total employment that was in the private sector, and the percentage of workers in the private and public sectors who were covered by a collective bargaining agreement.

Table A-2 shows the 56 occupations, among the top 100 in the private and public sectors, that were common in both sectors in 2011. The occupations are listed in descending order of the total number of workers employed. To illustrate, of the 2,690,000 workers employed as “managers, all other,” 2,302,000 were employed in the private sector and 388,000 were employed in the public sector. Of the total number of workers employed as “managers, all other,” 85.6% worked in the private sector. Of the 2,302,000 “managers, all other” employed in the private sector, 2.2% were covered by a collective bargaining agreement, while 20.9% of public sector workers in this occupation were represented by a union.

Occupations that are generally common to both the private and public sectors include managers; elementary and middle school teachers; registered nurses; secretaries and administrative assistants; janitors and building cleaners; accountants and auditors; nursing, psychiatric, and home health aides; and managers of office and administrative support workers.

A disproportionate share of workers in some occupations are employed in either the private or public sectors. For example, in 18 of the 56 occupations in **Table A-2**, at least 90.0% of workers were employed in the private sector. These occupations include drivers/sales workers and truck drivers, customer service representatives, cashiers, chief executives, laborers and material movers, cooks, carpenters, financial managers, construction laborers, software developers, stock clerks, and maids and housekeeping cleaners.

For other occupations in **Table A-2**, a disproportionate share of workers were employed in the public sector. For 8 of the 56 occupations, over 25.0% of workers were employed in the public sector. These occupations were mainly in education, but also include social workers, office clerks, and janitors.

Table A-3 shows the 44 occupations, among the top 100 occupations in the private sector, that were not present among the top 100 occupations in the public sector. These occupations are listed by the number of workers employed in the private sector. Of the workers employed in these 44 occupations, 97.7% worked in the private sector. These occupations were mainly in sales, food preparation and serving, construction, production, automotive service, real estate, and farming.

Table A-4 shows the 44 occupations, among the top 100 occupations in the public sector, that were not present among the top 100 private sector occupations. The occupations are listed by the number employed in the public sector. Of the workers employed in these 44 occupations, 64.4% worked in the public sector. These occupations were mainly in education; public safety (e.g., police officers, correctional officers, fire fighters, and detectives and criminal investigators); the Postal Service; highway maintenance; eligibility interviewers for government programs; and legal occupations (e.g., court, municipal, and license clerks and legal support occupations).

**Table A-2. Occupations Common to Both the Private and Public Sectors,
by Total Number Employed, 2011**

Occupation		Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Private Sector	Percent Covered by a Collective Bargaining Agreement	
		Total	Private	Public		Private	Public
1	Managers, all other	2,690	2,302	388	85.6%	2.2%	20.9%
2	Driver/sales workers and truck drivers	2,586	2,494	93	96.4%	12.1%	38.9%
3	Elementary and middle school teachers	2,384	439	1,945	18.4%	31.9%	65.2%
4	Registered nurses	2,110	1,807	303	85.6%	16.9%	36.8%
5	Secretaries and administrative assistants	2,082	1,603	479	77.0%	3.4%	33.9%
6	Customer service representatives	1,482	1,398	84	94.3%	6.0%	32.8%
7	Janitors and building cleaners	1,461	1,040	421	71.2%	11.3%	42.0%
8	Accountants and auditors	1,439	1,261	178	87.6%	1.6%	25.5%
9	Cashiers	1,316	1,276	40	97.0%	6.1%	29.0%
10	Nursing, psychiatric, and home health aides	1,287	1,147	140	89.1%	10.4%	33.8%
11	Chief executives	1,270	1,227	42	96.7%	1.4%	7.1%
12	First-line supervisors/managers of office and administrative support workers	1,253	1,043	209	83.3%	2.9%	28.6%
13	Laborers and freight, stock, and material movers, hand	1,249	1,198	51	95.9%	15.7%	44.5%
14	Cooks	1,204	1,127	77	93.6%	4.0%	20.9%
15	Carpenters	1,108	1,074	35	96.9%	9.1%	46.3%
16	Financial managers	1,050	969	81	92.3%	2.2%	18.8%
17	Construction laborers	1,016	979	37	96.4%	10.3%	33.9%
18	Software developers, applications and systems software	1,010	944	65	93.5%	1.4%	17.6%
19	Stock clerks and order fillers	975	939	37	96.2%	8.1%	33.9%
20	Lawyers, judges, magistrates, and other judicial workers	973	776	197	79.8%	1.6%	19.2%
21	General and operations managers	935	837	98	89.5%	3.1%	16.7%
22	Grounds maintenance workers	908	792	116	87.2%	2.6%	35.3%
23	Bookkeeping, accounting, and auditing clerks	883	788	95	89.2%	2.2%	30.1%
24	Postsecondary teachers	855	414	441	48.4%	14.6%	32.4%
25	Receptionists and information clerks	838	750	88	89.5%	3.0%	26.4%
26	Maids and housekeeping cleaners	781	731	50	93.6%	8.3%	22.9%
27	Office clerks, general	772	531	241	68.8%	5.0%	36.4%
28	Education administrators	737	362	375	49.1%	10.0%	34.3%
29	Security guards and gaming surveillance officers	728	605	124	83.0%	8.8%	32.1%
30	Physicians and surgeons	704	622	82	88.3%	5.9%	23.9%

	Occupation	Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Private Sector	Percent Covered by a Collective Bargaining Agreement	
		Total	Private	Public		Private	Public
31	First-line supervisors/managers of production and operating workers	671	633	38	94.3%	9.1%	32.1%
32	Social workers	670	356	315	53.0%	8.5%	37.0%
33	Child care workers	618	564	54	91.2%	2.4%	24.9%
34	Electricians	605	563	42	93.0%	31.8%	48.4%
35	Inspectors, testers, sorters, samplers, and weighers	601	563	39	93.6%	8.8%	34.9%
36	First-line supervisors/managers of construction trades and extraction workers	576	528	48	91.7%	13.5%	36.1%
37	Counselors	575	340	235	59.2%	8.1%	53.5%
38	Personal and home care aides	555	453	102	81.6%	6.1%	35.0%
39	Computer and information systems managers	537	474	62	88.4%	2.1%	22.0%
40	Human resources workers	528	417	111	78.9%	8.1%	20.0%
41	Preschool and kindergarten teachers	524	342	182	65.3%	8.5%	54.2%
42	Medical and health services managers	465	422	44	90.6%	5.0%	19.6%
43	Computer support specialists	430	358	73	83.1%	2.8%	27.7%
44	Licensed practical and licensed vocational nurses	416	363	54	87.1%	9.1%	25.0%
45	Computer programmers	415	358	57	86.3%	1.7%	16.9%
46	Other teachers and instructors	403	325	77	80.8%	4.6%	29.1%
47	First-line supervisors/managers of food preparation and serving workers	396	347	49	87.7%	1.8%	23.8%
48	Computer systems analysts	391	343	49	87.6%	2.0%	38.0%
49	Office and administrative support workers, all other	386	310	76	80.2%	4.5%	27.7%
50	Operating engineers and other construction equipment operators	354	275	79	77.6%	32.3%	44.1%
51	Maintenance and repair workers, general	353	278	76	78.6%	11.1%	42.3%
52	Civil engineers	351	265	86	75.6%	2.8%	24.5%
53	Engineering technicians, except drafters	335	277	58	82.6%	11.0%	56.0%
54	Paralegals and legal assistants	331	290	41	87.6%	1.6%	22.8%
55	First-line supervisors/managers of mechanics, installers, and repairers	317	262	56	82.5%	10.3%	27.0%
56	Engineers, all other	315	258	57	81.9%	3.2%	20.5%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2011.

- a. Occupations are listed in descending order by the sum of persons employed in the private and public sectors.

**Table A-3. Occupations More Common in the Private Sector, by
Number Employed in the Private Sector, 2011**

	Occupation	Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Private Sector	Percent Covered by a Collective Bargaining Agreement
		Total	Private	Public		
1	First-line supervisors/managers of retail sales workers	2,740	2,727	13	99.5%	3.5%
2	Retail salespersons	1,827	1,814	13	99.3%	2.0%
3	Sales representatives, wholesale and manufacturing	1,131	1,129	2	99.8%	2.2%
4	First-line supervisors/managers of non-retail sales workers	952	923	29	96.9%	1.5%
5	Marketing and sales managers	902	887	15	98.3%	0.9%
6	Food service managers	899	878	21	97.7%	1.3%
7	Waiters and waitresses	861	857	5	99.5%	2.6%
8	Construction managers	803	782	21	97.4%	4.4%
9	Miscellaneous assemblers and fabricators	756	750	6	99.2%	17.7%
10	Automotive service technicians and mechanics	732	717	15	97.9%	4.5%
11	Production workers, all other	639	618	21	96.7%	15.6%
12	Designers	583	568	15	97.5%	3.1%
13	Real estate brokers and sales agents	568	556	12	97.9%	2.3%
14	Farmers, ranchers, and other agricultural managers	549	547	2	99.6%	0.0%
15	Management analysts	571	539	32	94.5%	1.1%
16	Miscellaneous agricultural workers	539	534	5	99.1%	1.4%
17	Industrial truck and tractor operators	482	474	9	98.2%	17.6%
18	Welding, soldering, and brazing workers	475	468	8	98.4%	18.1%
19	Shipping, receiving, and traffic clerks	469	461	8	98.2%	9.6%
20	Pipelayers, plumbers, pipefitters, and steamfitters	483	457	26	94.6%	24.8%
21	Insurance sales agents	460	456	4	99.1%	1.1%
22	Hairdressers, hairstylists, and cosmetologists	429	427	2	99.6%	1.7%
23	Sales representatives, services, all other	412	407	4	98.9%	1.5%
24	Industrial and refractory machinery mechanics	421	402	19	95.5%	20.1%
25	Machinists	390	379	11	97.2%	16.2%
26	Property, real estate, and community association managers	397	377	20	95.0%	2.4%
27	Painters, construction and maintenance	388	377	11	97.1%	6.9%
28	Billing and posting clerks and machine operators	394	370	25	93.7%	3.5%

	Occupation	Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Private Sector	Percent Covered by a Collective Bargaining Agreement
		Total	Private	Public		
29	Metalworkers and plastic workers, all other	355	354	1	99.8%	14.7%
30	Health practitioner support technologists and technicians	371	339	32	91.4%	9.6%
31	Food preparation workers	352	336	16	95.5%	7.3%
32	Clergy	311	310	1	99.7%	1.9%
33	Personal financial advisors	318	308	10	96.9%	1.7%
34	Heating, air conditioning, and refrigeration mechanics and installers	323	298	25	92.2%	14.4%
35	Chefs and head cooks	306	297	9	97.0%	2.4%
36	Medical assistants	311	292	19	93.9%	4.5%
37	Packers and packagers, hand	295	290	5	98.4%	8.8%
38	Loan counselors and officers	304	279	25	91.9%	0.4%
39	Butchers and other meat, poultry, and fish processing workers	279	279	0	100.0%	25.4%
40	Mechanical engineers	303	278	26	91.6%	6.3%
41	Tellers	272	268	4	98.5%	1.6%
42	Electrical and electronic engineers	286	261	25	91.3%	4.7%
43	Taxi drivers and chauffeurs	264	253	11	95.9%	7.4%
44	Packaging and filling machine operators and tenders	252	252	0	99.9%	20.7%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2011.

a. Occupations are listed in descending order by the number employed in the private sector.

Table A-4. Occupations More Common in the Public Sector, by the Number Employed in the Public Sector, 2011

	Occupation	Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Public Sector	Percent Covered by a Collective Bargaining Agreement
		Total	Private	Public		
1	Secondary school teachers	978	172	807	82.5%	69.6%
2	Police and sheriff's patrol officers	644	0	644	100.0%	65.0%
3	Bailiffs, correctional officers, and jailers	429	0	429	100.0%	44.4%
4	Teacher assistants	579	179	400	69.1%	40.6%
5	Special education teachers	354	58	296	83.6%	69.7%
6	Postal service mail carriers	294	0	294	100.0%	81.2%
7	Fire fighters	290	1	289	99.7%	70.5%
8	Bus drivers	288	140	148	51.4%	54.8%
9	Detectives and criminal investigators	142	5	137	96.7%	55.3%
10	Postal service clerks	123	0	123	100.0%	80.3%
11	First-line supervisors/managers of police and detectives	99	0	99	100.0%	52.3%
12	Librarians	127	37	90	70.5%	33.0%
13	Compliance officers	172	85	86	50.2%	32.7%
14	Dispatchers	202	119	83	41.3%	37.4%
15	Probation officers and correctional treatment specialists	84	1	83	98.7%	48.6%
16	File Clerks	237	155	82	34.5%	42.6%
17	Highway maintenance workers	94	19	74	79.5%	39.7%
18	Court, municipal, and license clerks	74	5	69	92.8%	35.1%
19	Eligibility interviewers, government programs	77	11	66	85.8%	38.3%
20	Psychologists	125	61	65	51.6%	48.4%
21	Computer occupations, all other	281	218	63	22.3%	27.3%
22	Business operations specialists, all other	229	167	63	27.3%	26.8%
23	Tax examiners, collectors, and revenue agents	65	4	62	94.1%	53.4%
24	Water and liquid waste treatment plant and system operators	75	18	58	76.6%	32.3%
25	Other education, training, and library workers	92	35	56	61.4%	45.1%
26	Purchasing agents, except wholesale, retail, and farm products	226	170	56	24.9%	34.8%
27	Postal service mail sorters, processors, and processing machine operators	55	0	55	100.0%	79.2%
28	Biological scientists	103	53	50	48.4%	33.7%
29	Social and human service assistants	101	51	50	49.1%	30.8%
30	Data entry keyers	275	225	50	18.1%	24.5%
31	Bus and truck mechanics and diesel engine specialists	293	244	49	16.7%	44.5%
32	Speech-language pathologists	92	43	49	52.8%	64.9%
33	Miscellaneous legal support workers	164	117	47	28.7%	42.4%

	Occupation	Number Employed ^a (in 1,000s)			Percentage of Total Employed in the Public Sector	Percent Covered by a Collective Bargaining Agreement
		Total	Private	Public		
34	Operations research analysts	116	71	45	38.7%	19.7%
35	Emergency medical technicians and paramedics	167	123	44	26.3%	46.2%
36	Word processors and typists	101	59	43	42.2%	49.1%
37	Payroll and timekeeping clerks	136	95	42	30.4%	37.3%
38	First-line supervisors/managers of correctional officers	40	0	40	100.0%	28.5%
39	Construction and building inspectors	63	24	39	61.4%	22.7%
40	Environmental scientists and geoscientists	86	48	39	44.8%	45.7%
41	Miscellaneous life, physical, and social science technicians	115	77	38	33.3%	31.1%
42	First-line supervisors/managers of fire fighting and prevention workers	40	2	38	94.8%	66.0%
43	Private detectives and investigators	92	56	36	38.9%	29.5%
44	Physical scientists, all other	135	100	35	26.0%	17.8%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2011.

a. Occupations are listed in descending order by the number employed in the public sector.

Data and Methodology

This report analyzes data from the Current Employment Statistics (CES) survey and the Current Population Survey (CPS).

The CES is an employer survey conducted by the Bureau of Labor Statistics (BLS). The CES survey counts the number of persons on employer payrolls for any part of the pay period that includes the 12th day of the month. Persons who are on the payroll of more than one establishment are counted in each establishment. Government employment includes civilian employees only; persons in the military are not included. Also excluded are employees of the Central Intelligence Agency, the National Security Agency, the National Imagery and Mapping Agency, and the Defense Intelligence Agency.²⁶

The CPS is a household survey conducted by the U.S. Census Bureau for BLS. The monthly CPS is the source of the national unemployment rate and other labor market information. The survey is representative of the civilian noninstitutional population. The sample does not include persons living in institutions (such as psychiatric hospitals, nursing homes, or correctional facilities). The monthly survey does not include individuals who are on active duty in the military.²⁷ Approximately 50,000 households are interviewed each month.²⁸ The data for occupations and union coverage (**Table 1** in the text and the tables in the **Appendix**) are from the monthly CPS.

²⁶ U.S. Department of Labor, Bureau of Labor Statistics, *Current Employment Statistics*, available at <http://stats.bls.gov/ces/home.htm>.

²⁷ Bureau of Labor Statistics, "Labor Force Data Derived from the Current Population Survey," *Handbook of Methods*, pp. 1-2, available at <http://www.bls.gov/opub/hom/pdf/homch1.pdf>.

²⁸ U.S. Census Bureau, *Current Population Survey (CPS)*, available at <http://www.census.gov/cps/>.

Each year, the CPS conducts the Annual Social and Economic (ASEC) Supplement to the monthly CPS. The sample for the ASEC Supplement is representative of the civilian noninstitutional population of the United States. The sample for the supplement includes members of the Armed Forces living in civilian housing units on a military base or in a household not on a military base. For the 2011 supplement, 75,900 households were interviewed.²⁹

In this report, data on the characteristics of private and public sector workers are from the ASEC Supplement. The supplement collects information on the longest job a worker held during the previous year. This report uses information on the longest job a worker held during the previous year because, for their current job, the monthly CPS did not begin to separate public sector employees into federal, state, and local government workers until 1988.

Changes in the Reporting of Educational Attainment in the Current Population Survey (CPS)

In 1992, the CPS changed the way educational attainment is recorded. **Table A-3** shows the values for educational attainment for the years 1975 to 1991 and the values for 1992 to 2011. For 1976 to 1991, the CPS recorded the number of years of school that a person attended. Another variable recorded whether the person finished that year of school. Since 1992, the CPS has reported whether a person graduated from high school or college.

Because of the change in the way the CPS records educational attainment, estimates of the number of high school and college graduates for the years 1992 to 2011 are not comparable to estimates for earlier years. For the earlier period, persons who completed 12 years of high school may or may not have graduated from high school. Similarly, persons who finished 16 or more years of education may or may not have received a bachelor's, advanced, or professional degree. Because of the change in coding for educational attainment, changes in educational attainment discussed in this report are the sum of changes over two periods: 1976 to 1991 and 1992 to 2011.

²⁹ U.S. Census Bureau, *Current Population Survey, 2011 Annual Social and Economic (ASEC) Supplement*, pp. 1-1, 9-3, G-3, available at <http://www.census.gov/apsd/techdoc/cps/cpsmar11.pdf>.

Table A-5. Values for the Education Variable in the Current Population Survey (CPS), 1976 to 2011

1976 to 1991	1992 to 2011
Elementary school, 1 year	1 st , 2 nd , 3 rd , or 4 th grade
Elementary school, 2 year	5 th or 6 th grade
Elementary school, 3 year	7 th and 8 th grade
Elementary school, 4 year	9 th grade
Elementary school, 5 year	10 th grade
Elementary school, 6 year	11 th grade
Elementary school, 7 year	12 th grade no diploma
Elementary school, 8 year	High school graduate (high school diploma or equivalent)
High school, 1 year	Some college but no degree
High school, 2 year	Associate degree in college (occupation or vocation program)
High school, 3 year	Associate degree in college (academic program)
High school, 4 year	Bachelor's degree (e.g., BA or BS)
College, 1 year	Master's degree (e.g., MA, MS, MSW, or MBA)
College, 2 year	Professional school degree (e.g., MD, DDS, DVM, JD)
College, 3 year	Doctorate degree
College, 4 year	
College, 5 year	
College, 6 years or more	

Source: U.S. Department of Commerce, Bureau of the Census, *Current Population Survey, March 1992*, Technical Documentation CPS-92-3, September 1992, p. 5-1.

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