



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. To deal with budget deficits, many policymakers are looking at the pay and benefits of public sector employees as a way to reduce government spending. This report provides a comparison of selected characteristics—including age, education, and occupation—of public and private sector workers.

From 1955 to 2010, employment in the private sector increased by 64.1 million jobs (from 43.7 million to 107.8 million), while the number of jobs in the public sector (including federal, state, and local governments) grew by 15.5 million (from 7.0 million to 22.5 million). Since 1975, however, the percentage of all jobs that are in the public sector has fallen from 19.2% to 17.3%.

Union coverage has declined among all workers, but the decline has been greater in the private sector than in the public 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, and this difference has grown. 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. The percentage of workers with a post-graduate degree (i.e., an advanced or professional degree) has increased more in the public sector than in the private sector. 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” (55.4% and 36.9%, respectively). Workers in these occupations generally earn more than workers in other occupations. Occupational comparisons between private and public sector workers may be difficult. Comparisons that use broad occupational categories may miss differences between detailed occupations. On the other hand, comparisons that use detailed occupations may be complicated if workers are concentrated in either the private or public sectors. For example, in 2010 13.0% of full-time jobs in the private sector and 7.8% of jobs in the public sector were in management. But, 95.2% of chief executives, 99.2% of first-line supervisors of retail sales workers, and 97.7% of first-line supervisors of nonretail sales workers were employed in the private sector. On the other hand, virtually all first-line supervisors of police officers and detectives were employed in the public sector.
- *Union coverage.* In most occupations, 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 recent recession on government budgets has increased the interest of policymakers in reviewing the compensation of public sector employees. For FY2012, the Congressional Budget Office (CBO) estimates that the federal deficit under the President's proposed budget will be \$1.2 trillion.² Several state and local governments may also face budget shortfalls in FY2012.³ Many policymakers are looking at the pay and benefits of government employees as a way to reduce government spending.⁴

This report begins with an analysis of the trends in employment in the private and public sectors. Public sector workers are 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 use the characteristics of different workers to try to explain differences in the pay and benefits of private and public sector workers.

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 2010. 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), *CBO's Estimate of the President's Budget*, April 2011, p. 1, available at <http://www.cbo.gov/ftpdocs/121xx/doc12130/04-15-AnalysisPresidentsBudget.pdf>.

³ According to a report by the Center for Budget and Policy Priorities, 44 states are projected to have budget deficits in FY2012. Elizabeth McNichol, Phil Oliff, and Nicholas Johnson, *States Continue to Feel Recession's Impact*, Center for Budget and Policy Priorities, March 9, 2011, p. 1, available at <http://www.cbpp.org/files/9-8-08sfp.pdf>.

⁴ In late 2010, President Obama proposed, and Congress approved, a two-year pay freeze for federal civilian workers. 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).

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.

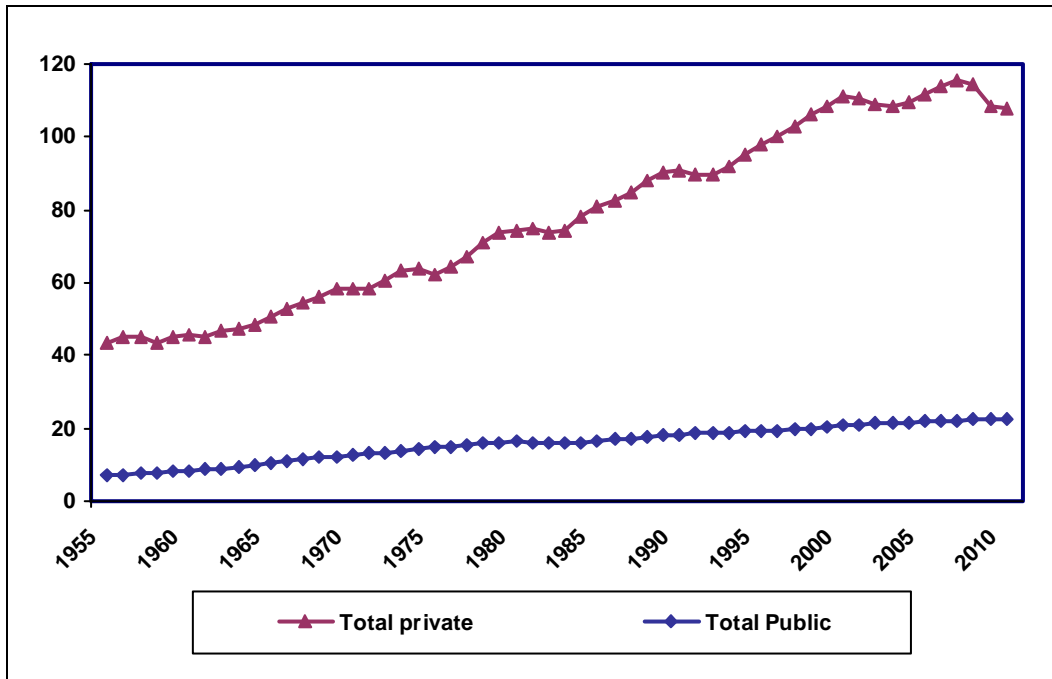
The House Budget Resolution for FY2012 includes a pay freeze for federal civilian employees through FY2016 and would require federal workers to pay more toward their retirement plan. U.S. Congress, House Committee on the Budget, *Concurrent Resolution on The Budget—Fiscal Year 2012*, report to accompany H.Con.Res. 34, 112th Cong., 1st sess., H.Rept. 112-58, April 11, 2011, pp. 26, 108, available at <http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt58/pdf/CRPT-112hrpt58.pdf>.

From 1955 to 2010, 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 2010, employment in the private sector increased by 64.1 million jobs (from 43.7 million to 107.8 million), while the number of jobs in the public sector grew by 15.5 million (from 7.0 million to 22.5 million). Despite the larger increase in the number of private sector jobs, public sector employment grew by 220%, compared to an increase of 147% in the private sector (see **Figure 1**).

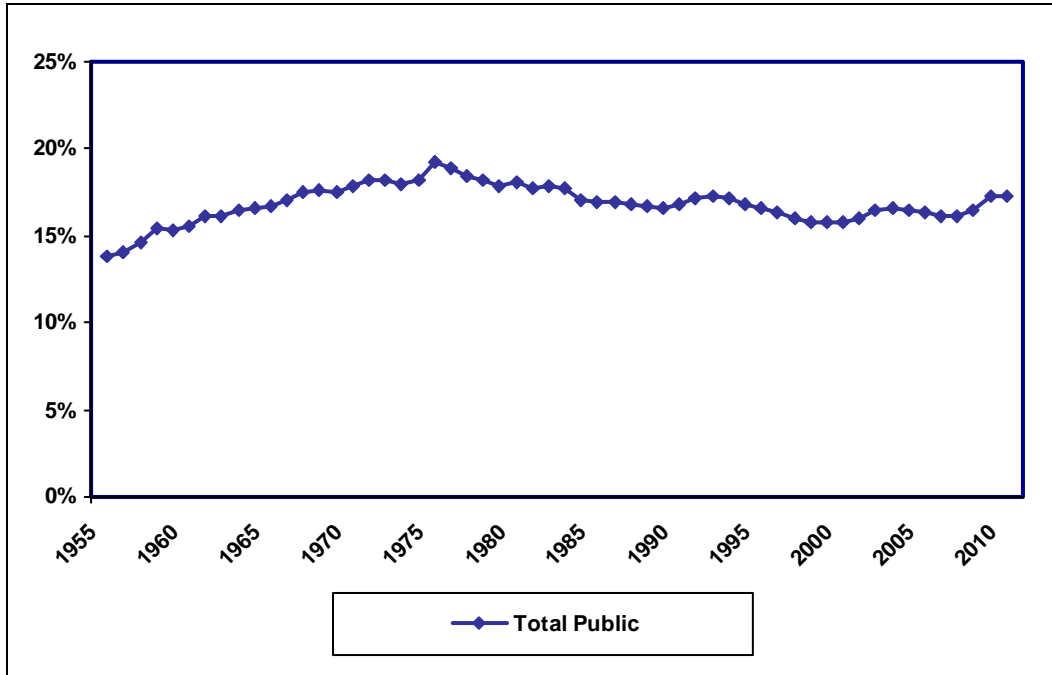
In 1955, public sector employment accounted for 13.8% of total employment in the United States. This percentage increased to 19.2% in 1975, and then fell to 17.3% in 2010 (see **Figure 2**).

Figure 1. Private and Public Sector Employment, 1955 to 2010
(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 2010



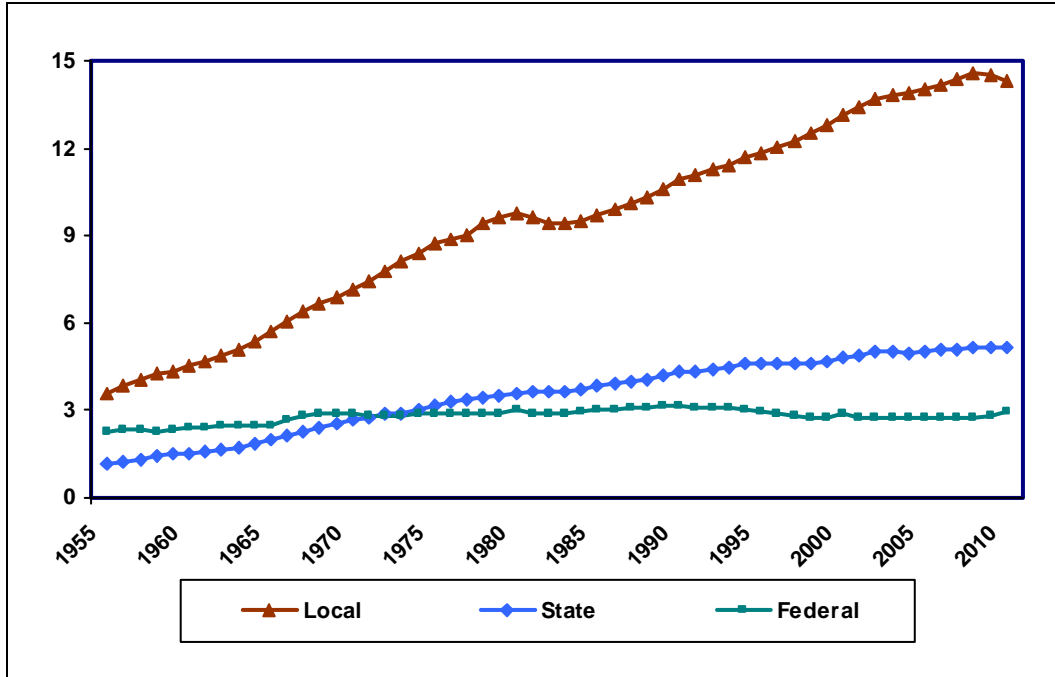
Source: Bureau of Labor Statistics, Current Employment Statistics survey, available at <http://stats.bls.gov/ces/>.

From 1955 to 2010, the growth in public sector employment occurred mainly among state and local governments. At the local level, employment rose by an estimated 10.8 million jobs (from 3.6 million to 14.3 million, after rounding). Employment at the state level rose by about 4.0 million jobs (from 1.2 million to 5.2 million) (see **Figure 3**).

From 1955 to 2010, employment at the local level increased from 7.0% to 11.0% of total employment (an increase of 4.0%). Among state governments, employment increased from 2.3% to 4.0% of total employment (an increase of 1.7%) (see **Figure 4**).

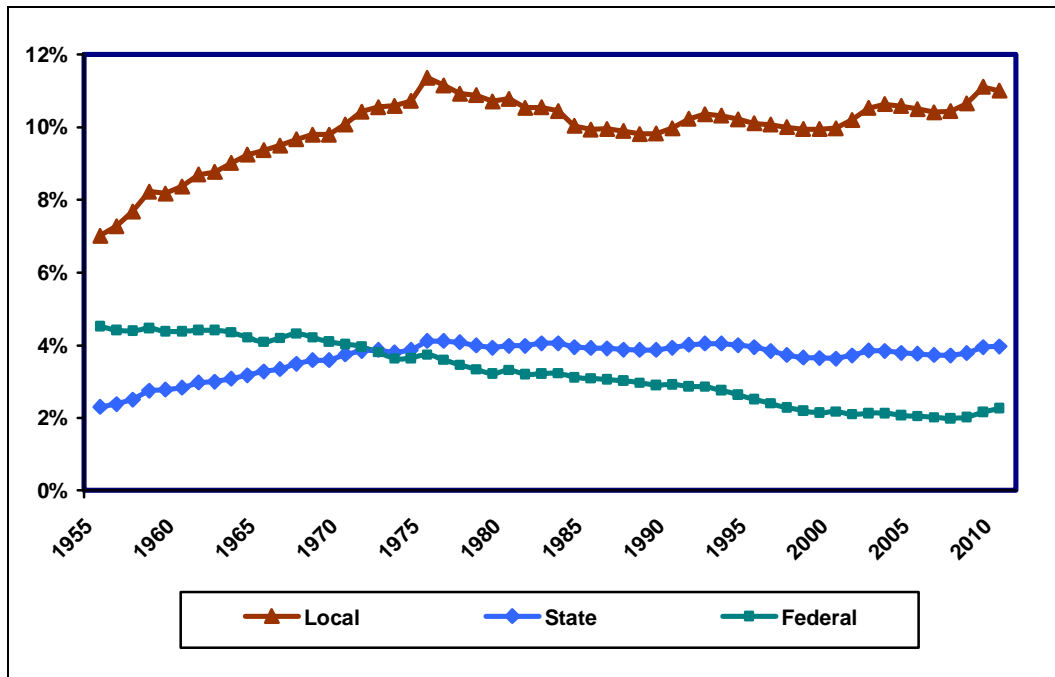
In 2010, the federal government employed an estimated 664,000 more workers than in 1955 (including the Postal Service) (see **Figure 3**). Despite the increase in the number of federal jobs, federal employment as a share of total employment fell from 4.5% in 1955 to 2.3% in 2010 (a decline of 2.3%, after rounding) (see **Figure 4**).

Figure 3. Public Sector Employment, by Level of Government, 1955 to 2010
(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 2010



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

Union Coverage

A worker may be a *member* of a union and pay union dues, or may be *covered* by a collective bargaining agreement even if he or she is not a member.⁵ 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 collective bargaining agreement. By 2010, the number had fallen to 16.3 million.⁶ In 2009, for the first time, a majority of employees covered by a collective bargaining agreement were employed in the public sector.⁷

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 2010. The beginning year of 1983 is used because that is the year when the CPS began collecting monthly data on union coverage.

In 2010, an estimated 51.6% of workers covered by a collective bargaining agreement were employed in the public sector. Most public sector employees covered by a collective bargaining agreement worked for local governments (31.1% of covered workers). Another 13.4% of covered workers were employed by state governments, and 7.1% of covered workers were employed by the federal government.

From 1983 to 2010, the percentage of workers covered by a collective bargaining agreement fell from 23.3% to 13.1%. 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 18.5% to 7.7% of all wage and salary workers. In the public sector, union coverage fell from 45.5% to 40.0%. The largest decrease in union coverage in the public sector was in the Postal Service (down by 11.5%), followed by the rest of the federal government (a decline of 7.1%), local governments (down by 5.1%), and state governments (a decline of 1.3%).

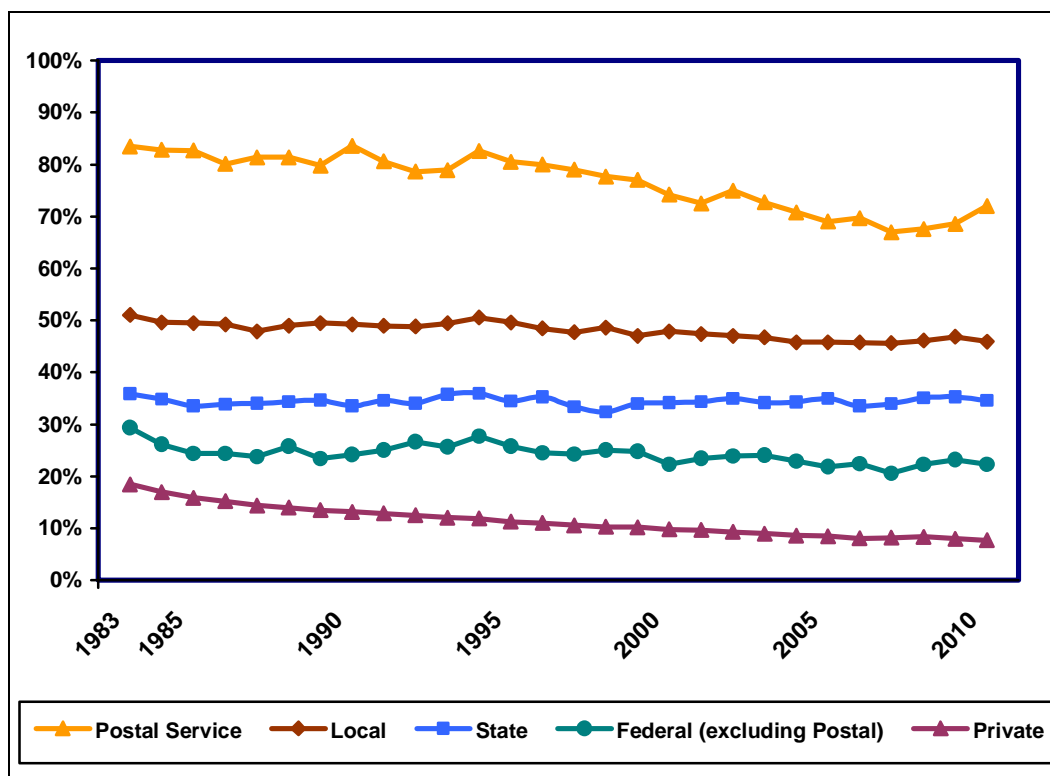
⁵ Workers who are covered by a union contract but are not union members may live in a right-to-work state, work for the federal government, or work for a state or local government where employees are not required to contribute financially to a union.

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 that include a union security agreement. A union security agreement may require employees to pay union dues after being hired (i.e., a union shop) or, if the employee is not required to join the union, to pay a representation fee to the union (i.e., an agency shop). Michael Ballot, Laurie Lichter-Heath, Thomas Kail, and Ruth Wang, *Labor-Management Relations in a Changing Environment* (New York: John Wiley and Sons, Inc., 1992), pp. 265-268. Employees of the federal government are not required to contribute financially to a union that represents employees.

⁶ Barry T. Hirsch and David A. Macpherson, *Union Membership and Coverage Database from the Current Population Survey*, available at <http://www.unionstats.com>.

⁷ 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.

Figure 5. Percent of Workers Covered by a Collective Bargaining Agreement, 1983-2010



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.⁸ 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 usually 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.⁹

⁸ 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.

⁹ 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, Executive, and Judicial Officials: Process for Adjusting Pay and Current Salaries*, by Barbara L. Schwemle.

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).¹⁰ 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.¹¹ The Tennessee Valley Authority (TVA) has a long-standing policy that allows employees to bargain over wages.¹²

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

This section of the report examines several characteristics that may affect the relative pay of private and public sector workers.¹³ 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 Supplement (ASEC) 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 2010 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 2010, 81.4% of workers ages 18 to 64 had full-time jobs. More workers in the public sector than in the private sector worked full-time (86.6% and 80.4%, respectively).

Age

In 2010, 51% of full-time public sector workers were between the ages of 45 and 64, compared to 43% of full-time private sector workers (see **Figure 6**). Federal workers are slightly older than employees of state and local governments. In 2010, 55% of federal workers were between the ages of 45 and 64, compared to 51% and 50%, respectively, of state and local government workers.

¹⁰ 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>.

¹¹ 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>.

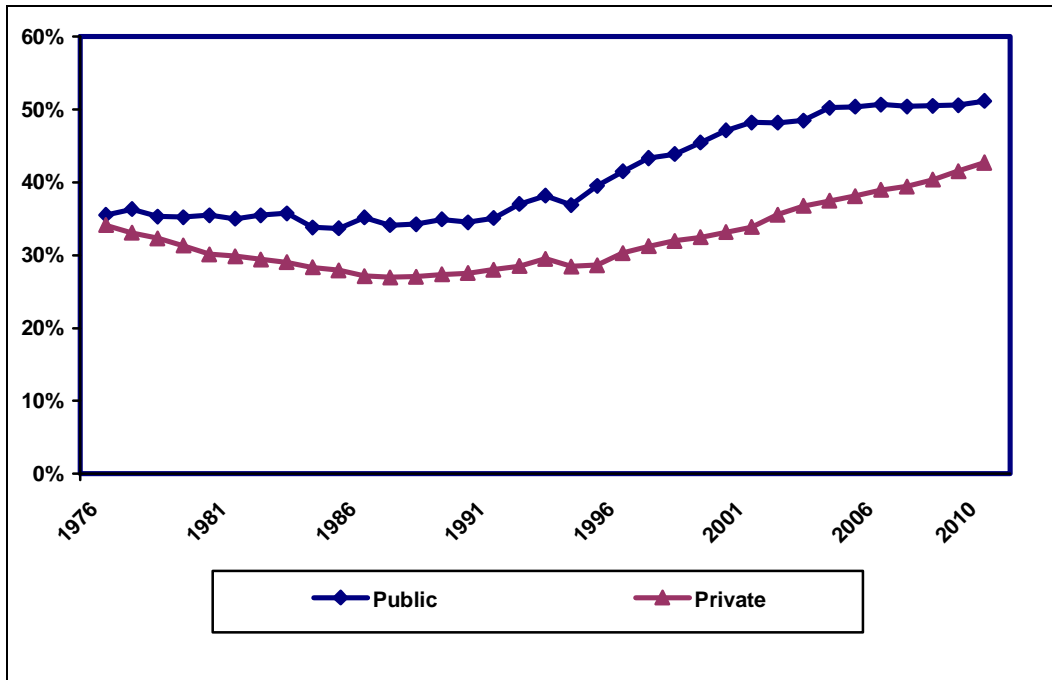
¹² The Tennessee Valley Authority (TVA) Act of 1933 does not give TVA employees the right to engage in collective bargaining. However, a policy adopted by the TVA in 1935 allows employees to organize and bargain collectively. U.S. Government Accountability Office (GAO), *Labor-Management Relations: Tennessee Valley Authority Situation Needs to Improve*, GAO/GGD-91-129, September 1991, p. 13, available at <http://archive.gao.gov/d18t9/145065.pdf>.

¹³ For additional information on characteristics of federal workers, see CRS Report RL34685, *The Federal Workforce: Characteristics and Trends*, by Curtis W. Copeland.

For opposing 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/>.

Although the gap has narrowed since 2001, public sector workers have become older compared to private sector workers. In 1976, 36% of public sector workers and 34% of private sector workers were between the ages of 45 and 64, a one-point difference (after rounding). By 2010, the age gap had increased to eight points (51% of public sector and 43% of private sector workers were between the ages of 45 and 64) (see **Figure 6**).

Figure 6. Percent of Full-Time Workers Who are Between the Ages of 45 and 64, 1976 to 2010



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.¹⁴ Thus, the age difference between private and public sector workers may translate into a difference in years of work experience. In turn, a difference in work experience may be reflected in differences in pay and benefits between private and public sector workers.

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 2010, women held almost three-fifths of full-time jobs in state and local governments (59.2% and 58.7%, respectively) and just over two-fifths of full-time jobs in the federal government and

¹⁴ 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.

in the private sector (41.3% and 41.9%, respectively). From 1976 to 2010, the share of jobs held by women in state governments increased by 15%. Over the same period, the total share of jobs held by women in local governments, the federal government, and the private sector increased by 10% (see **Figure 7**).

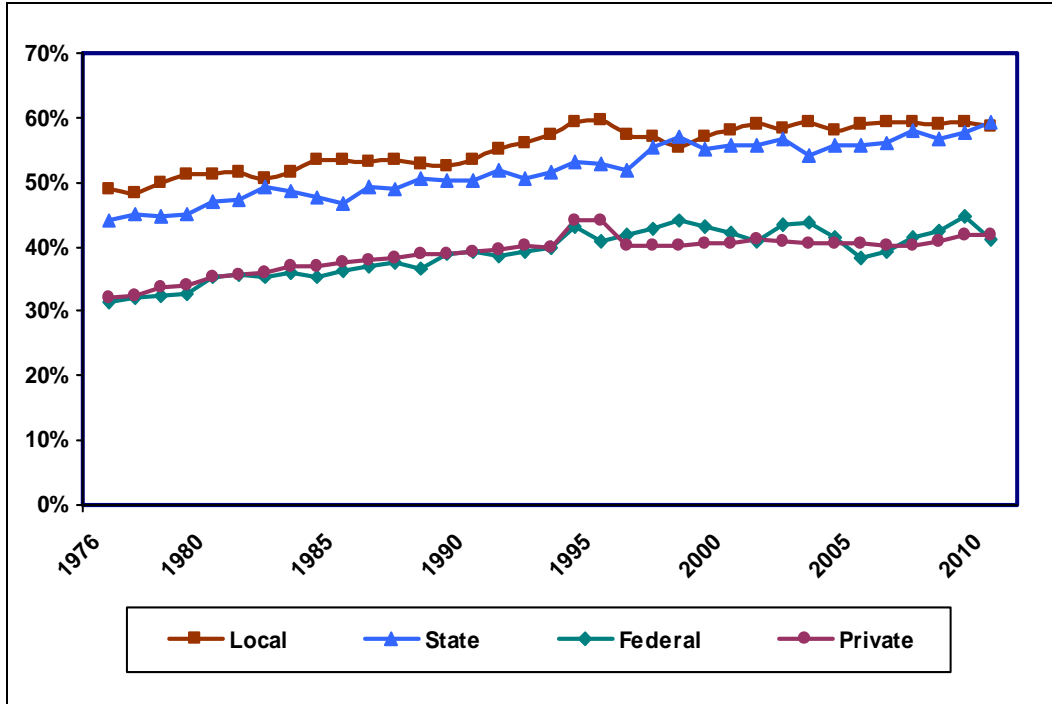
The effect of the increased employment of women on the difference in pay between private and public sector workers may be an empirical question. The share of jobs held by women in the public sector has increased more than the share of jobs held by women in the private sector.¹⁵ Although, on average, women earn less than men, the gap has narrowed.¹⁶ Evidence indicates that the difference in earnings between men and women is narrower in the public sector than in the private sector.¹⁷ Therefore, the effect of the increased share of jobs held by women on the difference in pay between private and public sector workers depends on the pay gap between men and women in the private sector compared to the pay gap in the public sector and how the differences in the two sectors have narrowed.

¹⁵ In 1976, 32% of full-time private sector jobs were held by women ages 18 to 64. In the public sector, 44% of full-time jobs were held by women. By 2010, these percentages had increased to 42% and 56%, respectively—a 10-point increase in the private sector and a 12-point increase in the public sector.

¹⁶ In 2009, the median earnings of women employed full-time, year-round were 77% of the median earnings of men who worked full-time, year-round. This percentage was up from 60% in 1976. U.S. Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States: 2009*, P60-238, September 2010, p. 50, available <http://www.census.gov/prod/2010pubs/p60-238.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.

¹⁷ 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.

Figure 7. Percent of Full-Time Workers Who are Female, 1976 to 2010



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

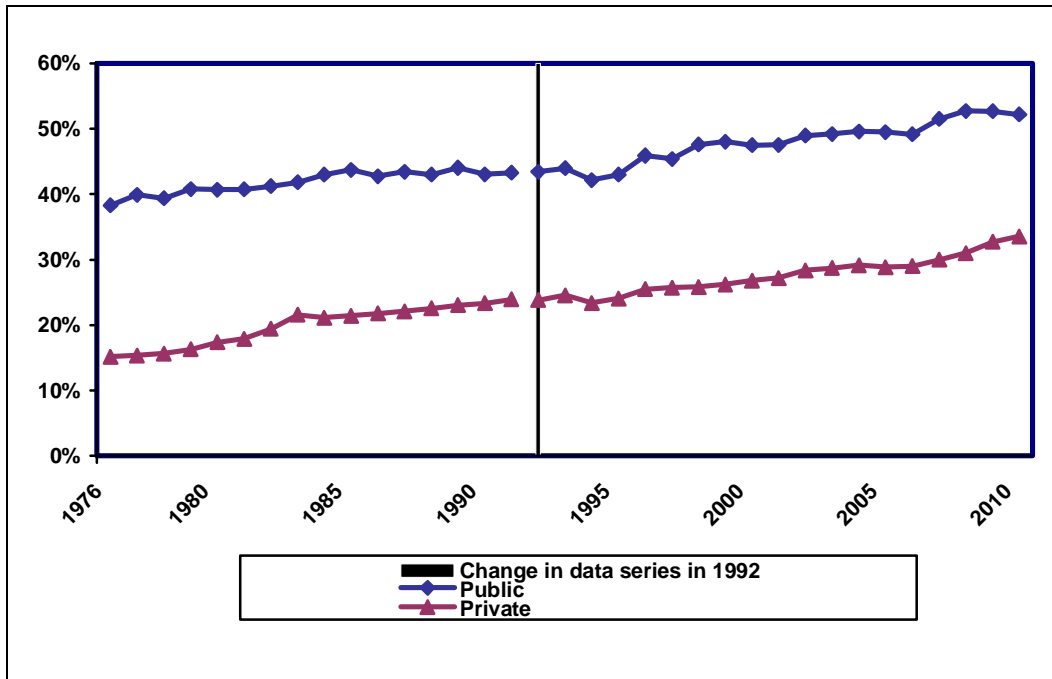
Education

Public sector employees, on average, have more years of education than private sector workers. In 2010, 52% of workers in the public sector had a bachelor’s, advanced, or professional degree, compared to 34% of private sector workers¹⁸ (see **Figure 8**).

State and local government employees are more likely than federal workers to have at least a bachelor’s degree. In 2010, 57% of state government workers and 52% of local government workers had at least a bachelor’s degree, compared to 46% of workers in the federal government (see **Figure 9**).

¹⁸ 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 2010



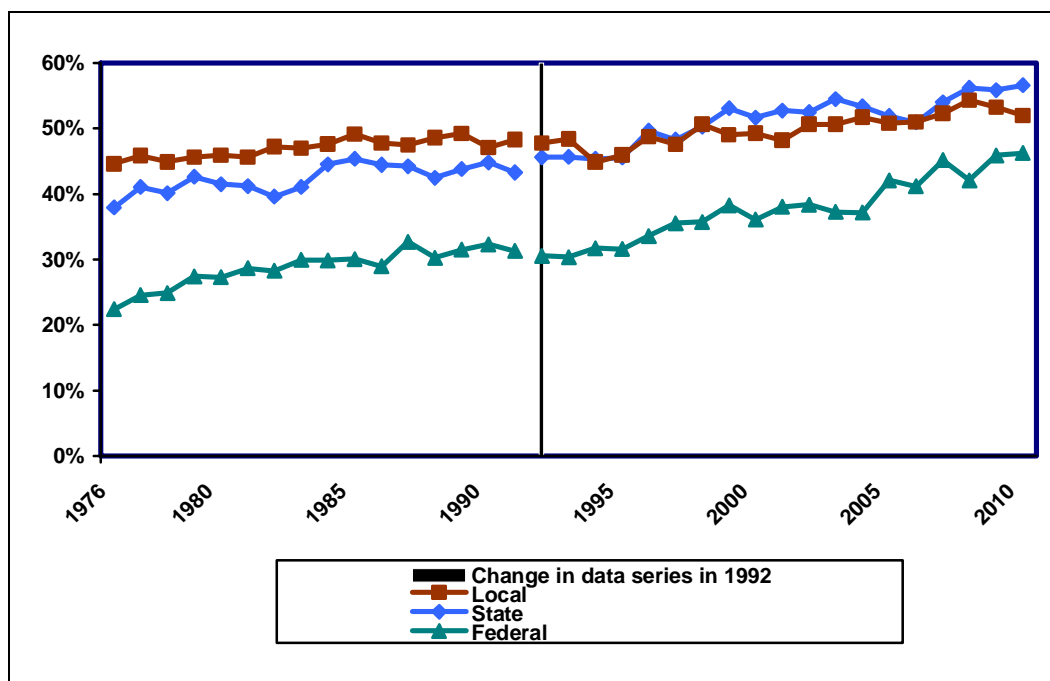
Source: CRS analysis of data from the Annual Social and Economic (ASEC) supplement to the Current Population Survey (CPS).

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 2010 are for persons who received a bachelor's, advanced, or professional degree. See the discussion of "CPS Values for Educational Attainment" in the **Appendix**.

In 1992, the CPS changed the way educational attainment is coded. For years before 1991, 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, the data for the years 1992 and later are not completely comparable to earlier years. (See the discussion of "CPS Values for Educational Attainment" in the **Appendix**.) The percentage point changes in educational attainment discussed in this report are the sum of the percentage point changes over these two periods.

From 1976 to 2010, educational attainment improved more in the private sector than in the public sector. From 1976 to 1991, the percentage of private sector workers who completed 16 or more years of education increased by 8.7 points. From 1992 to 2010, the percentage of private sector workers who received a bachelor's degree or better increased by 9.7 points, for a total increase from 1976 to 2010 of 18.4 points. This increase compares to a 13.7% increase for public workers. The largest gains among public workers were among federal workers, a 24.6% increase, compared to a 16.3% increase for state workers and a 7.9% 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 2010



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

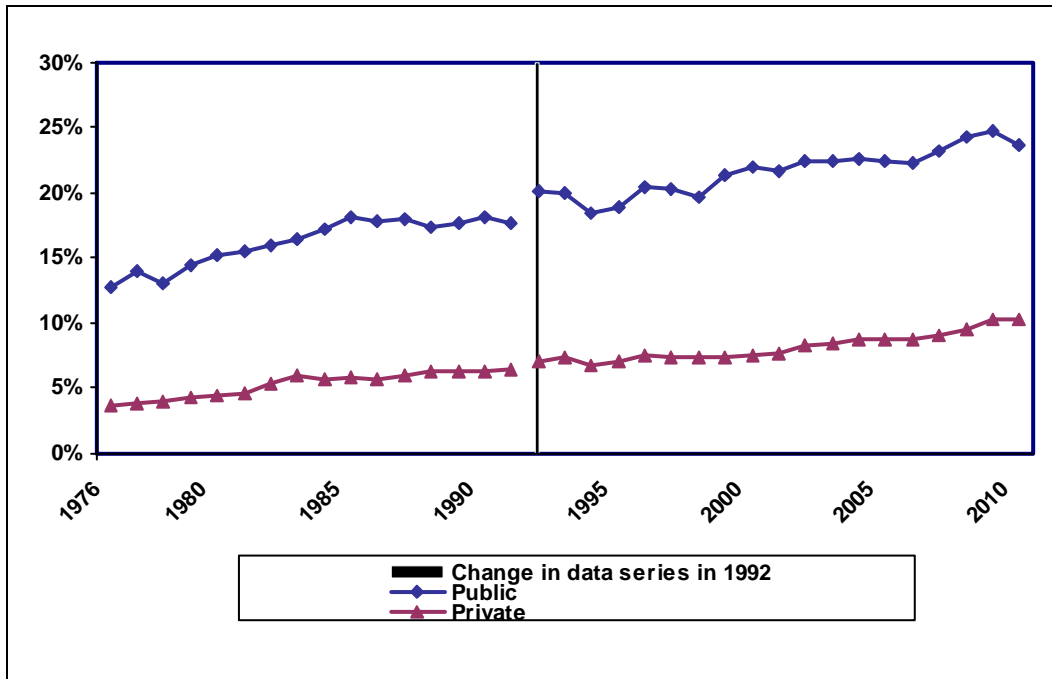
Notes: Because of changes in 1992 in the way educational attainment is coded in the CPS, data for the years 1992 and later are not comparable to earlier years. The data for the years 1976 to 1991 are for persons who completed 16 or more years of education. The data for the years 1992 to 2010 are for 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 2010 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 2010) increased by 8.5 points, compared to a 6.0-point increase for private sector workers (see **Figure 11**).

Workers with more education generally earn more than workers with less education.¹⁹ Other things being equal, the higher educational attainment of public sector workers, especially workers with an advanced or professional degree, should result in higher pay for public sector workers compared to workers in the private sector.

¹⁹ 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 2010



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 2010 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 both broad and detailed occupational variables. A comparison of private and public sector employment using broad occupational groups shows that these sectors have some occupations in common. Other occupations, however, are concentrated in either the private or public sectors.

Table 1 shows the distribution of employment in the private and public sectors by five broad occupational categories. These five categories are subdivided into a total of 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 2010. A worker’s occupation at the time of the CPS survey is used in order to identify union coverage by occupation.

All of the occupations in **Table 1** exist 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” (55.4% and 36.9%, respectively).²⁰ More public sector workers are

²⁰ 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)). (continued...)

employed in these occupations because 25.4% of all public sector workers were employed in “education, training, and library” occupations, compared to 2.2% of all private sector employees. Public sector employees in these occupations worked mainly for state and local governments (24.4% of employees in state governments and 34.1% of employees in local governments). In general, workers employed in management, professional, and related occupations earn more than workers in other occupations.²¹

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 (i.e., 11.5%, compared to 0.7% of public sector workers).

Broad occupational categories may not fully distinguish between detailed occupations that are concentrated in either the private or public sectors. **Table A-2**, **Table A-3**, and **Table A-4** in the **Appendix** show the top 100 occupations, by the number of persons employed full-time, in the private and public sectors. These occupations account for 76.1% of total full-time employment in 2010. In the private sector, the top 100 occupations account for 74.3% of all full-time workers. In the public sector, the top 100 occupations account for 85.5% 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 workers are concentrated in either the private or public sectors. For example, in 2010 13.0% of full-time jobs in the private sector and 7.8% of full-time jobs in the public sector were in management (see **Table 1**). But, 95.2% of chief executives worked in the private sector (see **Table A-2**). Similarly, 99.2% of first-line supervisors of retail sales workers and 97.7% 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**). Chief executives probably earn more, and first-line supervisors probably earn less, than mid-level managers.

Comparisons between private and public sector workers may be difficult. Comparisons that use broad occupational categories may miss differences between detailed occupations. On the other hand, comparisons that use detailed occupations may be complicated if workers in an occupation are concentrated in either the private or public sectors.

(...continued)

These two statutes do cover employees who are not supervisors, but who may be classified as managers in the CPS.

²¹ 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 Occupation and Covered by a Collective Bargaining Agreement, 2010

Occupation	Percent of Workers Employed by Occupation and Sector						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%	13.3%	7.5%	42.9%	32.9%	37.5%	49.7%
Management, professional, and related	39.9%	36.9%	55.4%	46.9%	61.1%	55.3%	13.7%	5.1%	43.1%	20.7%	36.7%	54.1%
Management	12.2%	13.0%	7.8%	9.5%	8.9%	6.5%	4.3%	2.1%	23.2%	12.9%	25.3%	27.1%
Business and financial operations	4.9%	4.9%	4.7%	9.7%	5.6%	2.4%	6.9%	2.9%	28.2%	24.7%	31.2%	29.4%
Computer and mathematical science	3.1%	3.2%	2.5%	5.8%	3.0%	1.0%	5.2%	2.4%	22.9%	14.4%	30.6%	28.1%
Architecture and engineering	2.3%	2.3%	1.8%	4.2%	1.7%	1.0%	9.7%	6.3%	32.3%	21.9%	42.9%	38.2%
Life, physical, and social science	1.1%	0.9%	2.0%	3.7%	2.8%	0.9%	10.2%	3.0%	27.5%	14.2%	27.2%	47.0%
Community and social service	1.7%	1.3%	4.2%	1.5%	6.2%	3.9%	19.1%	5.4%	40.5%	29.4%	33.0%	48.9%
Legal	1.4%	1.3%	1.7%	2.7%	1.9%	1.2%	5.3%	1.6%	19.5%	21.9%	26.2%	11.6%
Education, training, and library	6.0%	2.2%	25.4%	3.5%	24.4%	34.1%	46.4%	17.6%	59.5%	25.0%	46.9%	65.9%
Arts, design, entertainment, sports, and media	1.7%	1.9%	0.8%	1.1%	1.1%	0.4%	6.0%	4.8%	20.8%	5.7%	22.9%	31.7%
Healthcare practitioner and technical	5.6%	5.8%	4.5%	5.2%	5.5%	3.7%	14.6%	11.0%	38.5%	35.8%	32.5%	44.9%
Service	14.4%	13.4%	19.1%	12.8%	17.4%	22.3%	14.3%	5.9%	44.8%	30.5%	42.0%	49.1%
Healthcare support	2.1%	2.3%	1.2%	1.0%	1.8%	0.8%	9.4%	7.0%	33.4%	n.a.	35.6%	33.2%
Protective service	2.6%	0.9%	11.5%	7.6%	9.3%	14.2%	40.8%	11.5%	52.6%	30.4%	49.9%	58.0%
Food preparation and serving related	3.6%	4.0%	1.2%	0.9%	1.1%	1.4%	4.7%	3.4%	25.9%	n.a.	29.5%	27.2%
Building and grounds cleaning and maintenance	3.4%	3.4%	3.6%	2.2%	3.2%	4.4%	12.5%	7.3%	37.4%	49.4%	32.0%	37.5%
Personal care and service	2.7%	2.9%	1.5%	1.0%	2.0%	1.4%	7.0%	4.9%	27.8%	n.a.	34.5%	27.5%
Sales and office	22.6%	23.9%	15.9%	28.3%	14.8%	12.0%	8.2%	4.2%	39.0%	50.2%	32.9%	33.6%
Sales and related	9.8%	11.5%	0.7%	1.4%	0.7%	0.5%	3.3%	3.0%	26.8%	25.8%	n.a.	27.6%
Office and administrative support	12.9%	12.4%	15.2%	26.9%	14.1%	11.5%	12.0%	5.4%	39.6%	51.4%	33.1%	33.9%
Natural resources, construction, and maintenance	10.6%	11.6%	5.5%	6.1%	4.6%	5.7%	16.2%	13.7%	43.4%	40.9%	43.2%	44.5%
Farming, fishing, and forestry	0.7%	0.8%	0.1%	0.4%	0.2%	0.0%	4.0%	2.5%	n.a.	n.a.	n.a.	n.a.
Construction and extraction	5.7%	6.3%	3.0%	2.2%	2.6%	3.4%	17.0%	14.5%	43.8%	36.9%	46.5%	44.3%
Installation, maintenance, and repair	4.1%	4.5%	2.4%	3.5%	1.8%	2.3%	17.1%	14.4%	42.7%	44.3%	35.7%	45.1%
Production, transportation, and material moving	12.5%	14.2%	4.1%	5.8%	2.1%	4.7%	17.4%	15.8%	46.6%	43.9%	43.3%	48.8%
Production	6.5%	7.5%	1.5%	2.8%	0.8%	1.4%	16.6%	15.6%	42.1%	36.1%	41.8%	46.7%
Transportation and material moving	6.0%	6.7%	2.7%	3.0%	1.3%	3.3%	18.3%	15.9%	49.2%	51.0%	44.4%	49.6%

Source: CRS analysis of monthly data from the Current Population Survey (CPS). Estimates are monthly averages for 2010.

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.

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 18 of the 22 occupations shown, 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 2.1% of management employees and 1.6% 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; and 15.6% of production workers were represented by a union.

In the public sector, 42.9% of full-time employees were covered by a collective bargaining agreement. In management occupations, 23.2% of employees were covered. But, 59.5% of employees in education, training, and library occupations were covered, as were 52.6% of employees in protective service occupations. A significant majority of employees in the latter two occupations are employed by local governments (see **Table A-1**).

Metropolitan Area

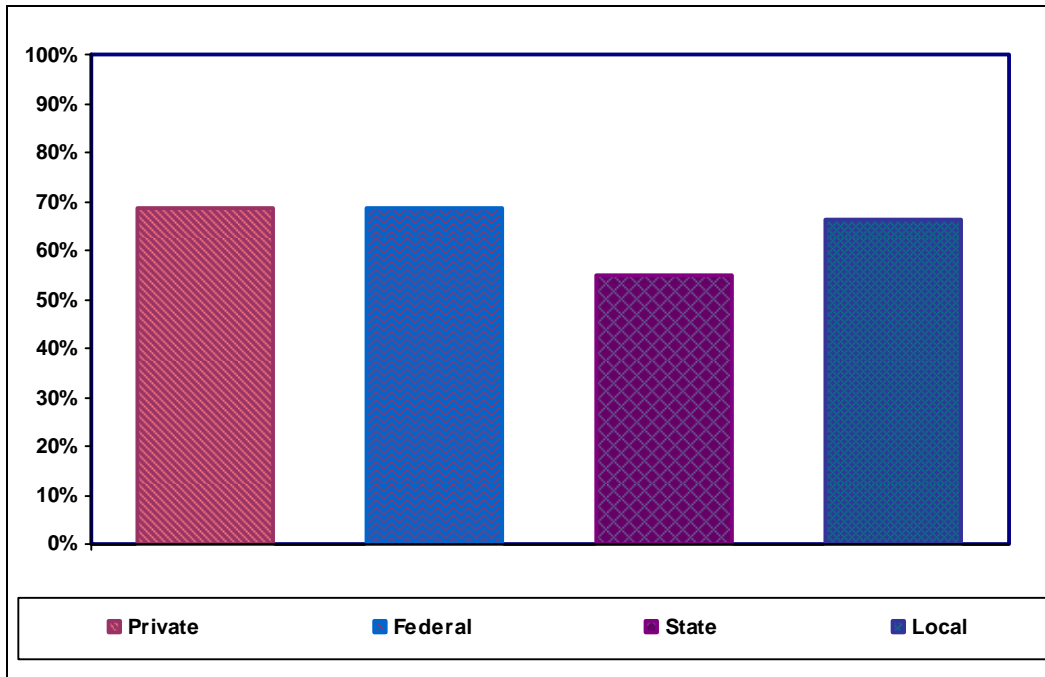
Figure 11 shows the percentage of private and public sector workers who live in metropolitan areas with 1 million or more persons. The estimates are for a worker's place of residence at the time of the 2010 ASEC Supplement survey.

The cost of living is generally higher in metropolitan versus nonmetropolitan areas.²² Thus, wages across areas may vary because of differences in the cost of living.²³ In 2010, 69% of private sector and federal government workers lived in metropolitan areas of 1 million or more people. Two-thirds of local government workers lived in metropolitan areas of this size. By contrast, 55% of state government employees lived in areas of 1 million people or more.

²² 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>.

²³ 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.

Figure 11. Percent of Full-Time Employees Who Live in a Metropolitan Area of 1 Million or More Persons, 2010



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 1 million or more live in metropolitan areas of less than 1 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, 2010

(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	106,575	89,241	17,335	3,291	5,109	8,934	14,139	6,695	7,443	1,083	1,917	4,444
Management, professional, and related	42,525	32,919	9,606	1,545	3,122	4,940	5,822	1,681	4,141	320	1,147	2,674
Management	12,953	11,606	1,346	314	452	580	554	242	312	41	115	157
Business and financial operations	5,189	4,367	822	319	285	218	360	128	232	79	89	64
Computer and mathematical science	3,282	2,848	433	192	152	90	169	70	99	28	46	25
Architecture and engineering	2,411	2,096	315	140	87	89	234	132	102	31	37	34
Life, physical, and social science	1,176	828	348	121	142	84	120	25	96	17	39	40
Community and social service	1,854	1,135	720	49	318	352	354	62	292	14	105	172
Legal	1,459	1,161	297	89	97	111	77	19	58	20	26	13
Education, training, and library	6,409	2,004	4,406	115	1,249	3,042	2,974	353	2,620	29	586	2,006
Arts, design, entertainment, sports, and media	1,846	1,712	133	36	59	38	110	82	28	2	13	12
Healthcare practitioner and technical	5,946	5,161	785	170	281	334	871	569	302	61	91	150
Service	15,304	11,998	3,306	423	889	1,994	2,186	705	1,482	129	374	979
Healthcare support	2,232	2,033	199	35	93	72	209	143	67	10	33	24
Protective service	2,799	801	1,998	251	475	1,272	1,143	92	1,050	76	237	737
Food preparation and serving related	3,791	3,575	216	31	57	128	178	122	56	4	17	35
Building and grounds cleaning and maintenance	3,630	3,000	630	73	163	393	455	219	236	36	52	147
Personal care and service	2,851	2,589	262	33	101	128	200	128	73	3	35	35
Sales and office	24,119	21,361	2,758	931	755	1,072	1,983	908	1,076	467	248	360
Sales and related	10,394	10,268	126	45	34	47	340	307	34	12	9	13
Office and administrative support	13,725	11,093	2,632	886	721	1,025	1,643	601	1,042	456	239	347
Natural resources, construction, and maintenance	11,265	10,318	947	201	234	512	1,821	1,409	411	82	101	228
Farming, fishing, and forestry	741	715	25	14	8	3	30	18	12	5	6	1
Construction and extraction	6,127	5,615	512	72	132	307	1,040	815	224	27	62	136
Installation, maintenance, and repair	4,398	3,988	410	115	94	201	751	576	175	51	33	91
Production, transportation, and material moving	13,362	12,644	717	192	109	417	2,327	1,992	335	84	47	203
Production	6,962	6,705	258	91	43	123	1,154	1,045	108	33	18	57
Transportation and material moving	6,399	5,940	460	100	66	294	1,173	947	226	51	29	146

Source: CRS analysis of monthly data from the Current Population Survey (CPS). Estimates are monthly averages for 2010.

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 2010 in the private and public sectors. In each sector, these occupations accounted for the largest number of workers holding full-time jobs.

Table A-2 shows the 55 occupations, among the top 100 in the private and public sectors, that exist in both sectors. The table shows 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 either the private or public sector, and the percentage of workers in the private and public sectors who were covered by a collective bargaining agreement. Thus, of the 2,583,000 workers employed as “managers, all other,” 2,223,000 were employed in the private sector and 360,000 were employed in the public sector. Of the total number of workers employed as “managers, all other,” 86.1% worked in the private sector and 13.9% were employed in the public sector. Of the 2,223,000 “managers, all other” employed in the private sector, 1.7% were covered by a collective bargaining agreement, while 19.4% of public sector workers in these occupations were represented by a union. The occupations in **Table A-2** are listed in descending order of the total number of workers employed.

Occupations that are generally common to both sectors include managers (in a category called “all other” managers), registered nurses, accountants and auditors, managers of office and administrative support workers, security guards and gaming surveillance officers, computer scientists and systems analysts, personal and home care aides, and computer programmers.

In 2010, 83.7% of all full-time workers were employed in the private sector. The remaining 16.3% worked in the public sector.²⁴ However, for several occupations, a disproportionate share of workers were employed in either the private or public sectors. For example, for 20 of the 55 occupations, 90.0% or more of workers were employed in the private sector. These occupations include drivers/sales workers and truck drivers, customer service representatives, chief executives, cooks, laborers and material movers, financial managers, carpenters, construction laborers, computer software engineers, stock clerks and order fillers, general operations managers, and maids and housekeeping cleaners.

For other occupations, a disproportionate share of workers were employed in the public sector. For nine of the 55 occupations, over 25.0% of workers were employed in the public sector. These occupations were mainly in education, but also include social workers, janitors, office clerks, and workers who operate power construction equipment.

Table A-3 shows the 45 occupations, among the top 100 occupations in the private sector, that were not present among the top 100 occupations in the public sector. In 2010, these 45 occupations did not exist in 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 45 occupations, 97.3% worked in the private sector. These occupations were primarily in sales, construction, production, food preparation and serving, real estate, farming, finance, health care, and engineering.

Table A-4 shows the 45 occupations that were 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

²⁴ In 2010, 82.1% of all full-time workers were employed in the private sector, while 17.9% worked in the public sector.

the number employed in the public sector. Of the workers employed in these 45 occupations, 59.5% 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; civil engineering; highway maintenance; social services; and legal support occupations.

**Table A-2. Occupations Common to Both the Private and Public Sectors,
by Total Number Employed, 2010**

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	2,583	2,223	360	86.1%	1.7%	19.4%
2	Driver/sales workers and truck drivers	2,558	2,480	78	97.0%	12.1%	44.2%
3	Elementary and middle school teachers	2,366	456	1,910	19.3%	33.5%	65.6%
4	Secretaries and administrative assistants	2,354	1,788	566	76.0%	3.5%	31.0%
5	Registered nurses	2,150	1,837	313	85.4%	17.2%	39.4%
6	Janitors and building cleaners	1,504	1,069	436	71.0%	11.7%	41.2%
7	Customer service representatives	1,498	1,402	96	93.6%	4.8%	34.0%
8	Accountants and auditors	1,436	1,243	192	86.6%	2.4%	21.9%
9	First-line supervisors/managers of office and administrative support workers	1,320	1,084	236	82.1%	2.1%	28.2%
10	Nursing, psychiatric, and home health aides	1,318	1,170	148	88.8%	8.5%	36.5%
11	Chief executives	1,294	1,233	61	95.2%	1.0%	11.6%
12	Cooks	1,160	1,077	83	92.8%	3.4%	24.4%
13	Laborers and freight, stock, and material movers, hand	1,157	1,114	43	96.3%	16.5%	41.1%
14	Financial managers	1,070	994	76	92.9%	1.5%	18.9%
15	Carpenters	1,023	985	38	96.3%	10.0%	43.3%
16	Construction laborers	1,020	979	42	95.9%	8.6%	46.2%
17	Computer software engineers	978	904	74	92.4%	1.3%	21.2%
18	Lawyers, judges, magistrates, and other judicial workers	939	732	208	77.9%	2.0%	14.4%
19	Stock clerks and order fillers	912	874	38	95.9%	10.8%	23.7%
20	General and operations managers	908	817	91	90.0%	2.3%	17.5%
21	Grounds maintenance workers	871	769	102	88.3%	3.6%	28.1%
22	Bookkeeping, accounting, and auditing clerks	868	772	96	88.9%	3.0%	20.4%
23	Receptionists and information clerks	853	762	91	89.3%	3.7%	32.2%
24	Postsecondary teachers	833	404	429	48.5%	12.3%	31.0%
25	Security guards and gaming surveillance officers	794	648	146	81.6%	11.9%	33.6%
26	Maids and housekeeping cleaners	782	736	46	94.1%	7.2%	27.4%

	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
27	Human resources, training, and labor relations specialists	749	594	155	79.4%	6.2%	25.2%
28	Physicians and surgeons	741	656	85	88.5%	6.0%	18.4%
29	Education administrators	728	337	391	46.2%	6.7%	33.5%
30	Computer scientists and systems analysts	713	610	102	85.6%	2.3%	28.9%
31	Office clerks, general	694	490	204	70.6%	6.8%	36.4%
32	Social workers	688	354	334	51.5%	7.5%	42.9%
33	First-line supervisors/managers of production and operating workers	673	628	45	93.3%	10.2%	32.9%
34	Child care workers	656	589	67	89.8%	2.1%	30.6%
35	Electricians	620	563	58	90.7%	30.7%	46.4%
36	Medical assistants and other healthcare support occupations	614	575	39	93.6%	6.5%	22.7%
37	First-line supervisors/managers of construction trades and extraction workers	611	554	57	90.7%	11.6%	33.7%
38	Inspectors, testers, sorters, samplers, and weighers	585	540	46	92.2%	12.7%	30.3%
39	Preschool and kindergarten teachers	536	325	211	60.6%	5.8%	61.7%
40	Counselors	515	282	232	54.9%	7.6%	41.3%
41	Computer and information systems managers	510	458	52	89.8%	1.3%	19.7%
42	Medical and health services managers	505	452	54	89.4%	4.3%	14.0%
43	Management analysts	494	451	43	91.3%	1.2%	34.1%
44	Personal and home care aides	494	402	92	81.4%	3.8%	38.2%
45	First-line supervisors/managers of food preparation and serving workers	456	412	43	90.5%	2.8%	23.7%
46	Computer programmers	446	384	62	86.2%	2.8%	20.9%
47	Licensed practical and licensed vocational nurses	444	394	50	88.7%	9.7%	33.1%
48	Office and administrative support workers, all other	399	304	95	76.2%	4.5%	17.3%
49	Other teachers and instructors	398	313	85	78.6%	4.8%	28.0%
50	First-line supervisors/managers of mechanics, installers, and repairers	364	307	57	84.3%	11.5%	30.2%
51	Computer support specialists	350	295	55	84.4%	3.3%	19.2%
52	Engineering technicians, except drafters	342	286	55	83.8%	16.3%	49.4%

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
53	Operating engineers and other construction equipment operators	337	251	86	74.6%	25.8%	45.0%
54	Bus and truck mechanics and diesel engine specialists	313	254	59	81.1%	14.3%	40.4%
55	Metalworkers and plastic workers, all other	299	296	3	99.0%	16.7%	54.8%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2010.

- a. Occupations are listed in descending order by the total number employed in both the private and public sectors

**Table A-3. Occupations More Common in the Private Sector, by
Number Employed in the Private Sector, 2010**

	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	2,681	2,660	20	99.2%	2.9%
2	Retail salespersons	1,797	1,782	16	99.1%	2.0%
3	Cashiers	1,285	1,249	36	97.2%	6.3%
4	Sales representatives, wholesale and manufacturing	1,127	1,122	5	99.6%	1.7%
5	First-line supervisors/managers of non-retail sales workers	1,007	983	23	97.7%	2.5%
6	Construction managers	927	910	17	98.2%	3.8%
7	Marketing and sales managers	876	855	21	97.6%	1.2%
8	Production workers, all other	835	816	19	97.7%	19.2%
9	Waiters and waitresses	813	802	11	98.6%	2.3%
10	Food service managers	810	789	20	97.5%	1.3%
11	Automotive service technicians and mechanics	724	702	22	96.9%	3.9%
12	Miscellaneous assemblers and fabricators	709	700	9	98.7%	17.3%
13	Real estate brokers and sales agents	567	559	8	98.6%	2.6%
14	Designers	572	557	16	97.2%	2.5%
15	Miscellaneous agricultural workers	512	507	5	99.0%	1.4%
16	Hairdressers, hairstylists, and cosmetologists	465	462	3	99.3%	0.7%
17	Shipping, receiving, and traffic clerks	470	461	9	98.1%	10.1%
18	Industrial truck and tractor operators	454	445	9	98.0%	19.9%
19	Painters, construction and maintenance	454	436	18	96.0%	4.7%
20	Pipelayers, plumbers, pipefitters, and steamfitters	465	430	35	92.5%	23.1%
21	Property, real estate, and community association managers	449	426	23	94.9%	1.7%
22	Insurance sales agents	422	419	3	99.3%	2.2%
23	Sales representatives, services, all other	422	415	7	98.4%	5.6%
24	Welding, soldering, and brazing workers	423	415	8	98.0%	16.1%
25	Industrial and refractory machinery mechanics	415	393	22	94.7%	20.6%
26	Farmers and ranchers	367	367	0	100.0%	0.0%

	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		
27	Billing and posting clerks and machine operators	376	349	27	92.8%	3.8%
28	Machinists	359	348	11	96.9%	15.5%
29	Packers and packagers, hand	341	338	2	99.3%	7.4%
30	Personal financial advisors	346	338	8	97.6%	1.5%
31	Health diagnosing and treating practitioner support technicians	357	334	23	93.7%	7.7%
32	Heating, air conditioning, and refrigeration mechanics and installers	356	331	25	92.9%	13.5%
33	Tellers	327	321	5	98.4%	3.1%
34	Clergy	322	319	3	98.9%	1.5%
35	Loan counselors and officers	337	318	19	94.3%	2.1%
36	Network systems and data communications analysts	332	298	34	89.8%	2.0%
37	Taxi drivers and chauffeurs	307	289	18	94.2%	5.2%
38	Securities, commodities, and financial services sales agents	284	284	0	100.0%	1.7%
39	Butchers and other meat, poultry, and fish processing workers	281	278	3	99.1%	27.4%
40	Food preparation workers	294	277	18	94.0%	4.0%
41	Paralegals and legal assistants	302	269	32	89.3%	0.9%
42	Chefs and head cooks	278	268	10	96.3%	1.1%
43	Mechanical engineers	280	266	15	94.8%	4.7%
44	Electrical and electronic engineers	288	262	26	91.0%	2.7%
45	Diagnostic related technologists and technicians	276	253	23	91.6%	9.4%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2010.

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, 2010

	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	1,092	179	912	83.6%	69.6%
2	Police and sheriff's patrol officers	692	0	692	100.0%	60.4%
3	Bailiffs, correctional officers, and jailers	436	0	436	100.0%	48.1%
4	Teacher assistants	572	166	406	71.0%	42.8%
5	Special education teachers	324	45	279	86.2%	75.1%
6	Fire fighters	279	3	276	98.9%	71.6%
7	Postal service mail carriers	272	0	272	100.0%	79.3%
8	Bus drivers	317	149	168	53.1%	51.0%
9	Miscellaneous community and social service specialists	246	97	149	60.5%	34.7%
10	Detectives and criminal investigators	153	4	148	97.2%	36.5%
11	Postal service clerks	111	0	111	100.0%	79.8%
12	Librarians	150	49	101	67.1%	37.5%
13	First-line supervisors/managers of police and detectives	98	0	98	100.0%	46.8%
14	Compliance officers, except agriculture, construction, health	181	86	95	52.6%	32.0%
15	Dispatchers	252	167	85	33.8%	44.7%
16	Civil engineers	287	205	82	28.5%	27.5%
17	Highway maintenance workers	100	20	80	79.9%	37.8%
18	Court, municipal, and license clerks	84	7	77	91.7%	36.9%
19	Eligibility interviewers, government programs	83	8	75	90.4%	42.3%
20	File Clerks	233	162	71	30.7%	23.7%
21	Tax examiners, collectors, and revenue agents	72	3	69	95.7%	45.5%
22	Other business operations specialists	210	141	69	32.8%	31.2%
23	Maintenance and repair workers, general	296	229	67	22.7%	42.6%
24	Postal service mail sorters, processors, and processing machine operators	65	0	65	100.0%	75.4%
25	Miscellaneous legal support workers	218	160	57	26.3%	36.0%
26	Speech-language pathologists	97	41	56	57.5%	67.9%
27	Engineers, all other	301	247	54	18.0%	23.4%

	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		
28	Other education, training, and library workers	84	30	54	63.9%	34.6%
29	Construction and building inspectors	96	44	52	54.4%	34.5%
30	Psychologists	118	66	52	44.2%	52.9%
31	Operations research analysts	102	51	51	50.0%	15.5%
32	Data entry keyers	281	230	51	18.1%	35.0%
33	Interviewers, except eligibility and loan	115	68	47	40.7%	28.6%
34	Emergency medical technicians and paramedics	161	114	47	29.0%	52.2%
35	Word processors and typists	114	68	46	40.7%	48.8%
36	Purchasing agents, except wholesale, retail, and farm product	214	168	46	21.5%	26.6%
37	First-line supervisors/managers of correctional officers	44	0	44	100.0%	33.5%
38	Physical scientists, all other	124	81	42	34.1%	10.5%
39	Recreation and fitness workers	200	158	42	20.9%	18.8%
40	First-line supervisors/managers of fire fighting and prevention workers	42	1	41	97.6%	57.5%
41	Environmental scientists and geoscientists	100	59	41	41.2%	34.1%
42	Social and community service managers	282	241	41	14.5%	37.9%
43	Medical scientists	124	84	40	32.3%	17.2%
44	Human resources managers	243	204	39	16.2%	18.8%
45	First-line supervisors/managers of housekeeping and janitorial workers	198	162	36	18.4%	33.1%

Source: CRS analysis of data from the monthly Current Population Survey (CPS) for 2010.

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.²⁵

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.²⁶ Approximately 50,000 households are interviewed each month.²⁷ The data for occupations and union coverage (**Table 1** in the text and the tables in the **Appendix**) are from the monthly CPS. Beginning in 1983, the monthly CPS began to collect information on union coverage on an employee's current job. Therefore, the analysis of union coverage by occupation is for an employee's current job. The estimates are annual monthly averages for 2010.

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 2010 supplement, 77,000 households were interviewed.²⁸

In this report, the data on trends in private and public sector employment 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.

The data from the CPS are for workers ages 18 to 64 who are employed full-time (i.e., 35 or more hours a week).

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 2010. 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 2010 are not comparable to

²⁵ U.S. Department of Labor, Bureau of Labor Statistics, *Current Employment Statistics*, available at <http://stats.bls.gov/ces/home.htm>.

²⁶ 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>.

²⁷ U.S. Census Bureau, *Current Population Survey (CPS)*, available at <http://www.census.gov/cps/>.

²⁸ U.S. Census Bureau, *Current Population Survey, 2010 Annual Social and Economic (ASEC) Supplement*, pp. 1-1, 9-3, G-3.

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 2010.

Table A-5. Values for the Education Variable in the Current Population Survey (CPS), 1976 to 2010

1976 to 1991	1992 to 2010
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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