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Federal Workforce Statistics Sources: OPM and OMB

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Summary

This report describes online tools, reports, and data compilations created by the Office of Management and Budget (OMB) and the Office of Personnel Management (OPM) that contain statistics about federal employees and the federal workforce.

The report also describes key characteristics of each resource and briefly discusses selected methodological differences, with the intention of facilitating the selection of appropriate data for specific purposes. This report is not intended to be a definitive list of all information on the federal workforce. It describes significant and recurring products that contain specific data often requested by Members or congressional staff.

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Introduction

According to the Office of Personnel Management (OPM), the federal workforce is composed of an estimated 2 million civilian workers,[1] and several federal agencies collect, compile, and publish statistics about this workforce. Sources may vary in their totals due to differences in how federal workforce statistics are compiled. Some sources rely on "head counts" of employees (such as the Office of Management and Budget [OMB]), some on total hours worked (OPM), some on surveys of employing agencies, and others on self-identification by workers surveyed in their homes.

In addition, federal civilian employee databases may exclude particular departments, agencies, or branches of government. Some may also account for temporary or seasonal employees (such as those employed by the U.S. Census) depending on the time of year the statistics are generated.

This report focuses on differences in methodologies, including exclusions, and the frequency of data collection employed by OMB and OPM to determine the size and scope of the federal workforce. These differences will facilitate the selection of appropriate data for specific purposes.

Comparing Methodologies: On-Board Personnel Versus Full-Time Equivalents[2]

One example of a key methodological distinction is the difference between "full-time equivalents" (FTEs) and on-board personnel. The following two examples illustrate how the FTE and on-board methods can be used to derive different federal workforce totals.

Method 1: Full-Time Equivalent Employment (OMB)

Full-time equivalent employment is defined as the total number of regular straight-time hours (not including overtime or holiday hours) worked by employees divided by the number of compensable hours applicable to each fiscal year. Work years, or FTEs, are not employee "head counts." One work year, or one FTE, is equivalent to 2,080 hours[3] of work.

Table 1 offers examples in which there is a difference between the actual number of people and the number of FTEs working the same number of total hours. It also illustrates how measuring employment by hours can substantially change the perception of the number of employees it takes to accomplish the work.

[1] Office of Personnel Management (OPM), September 2017, available at http://www.fedscope.opm.gov/. This estimate does not include the agencies and departments listed at http://www.fedscope.opm.gov/datadefn/aehri_sdm.asp#cpdf3.

[2] This section was created with assistance from Barbara Schwemle, analyst in American National Government.

[3] The figure of 2,080 hours in the work year is derived as follows: 8 hours per day multiplied by 10 days (in a 2-week pay period) equals 80 hours; 80 hours multiplied by 26 pay periods (in a year) equals 2,080 work hours.

Table 1. Measuring Full-time Equivalent Employment

Number of Actual Employees	Work Schedule	Normal Hours Worked Per Week	Total number of weeks	Total Compensable Hours	Full-time Equivalents[a]
1	Full-time	40	52	2,080	1
2	Part-time	20	52	2,080	1
5	Full-time	40	52	10,400	5
10	Part-time	20	52	10,400	5
17	Part-time	20	52	17,680	8.5
163	Part-time	20	52	168,520	81.5

Source: Congressional Research Service (CRS) calculations based on guidelines located in Section 85 of OMB Circular No. A-11.

a. FTE equals the total number of compensable hours worked divided by 2,080 hours.

FTE employment numbers are used by OMB to manage employment in departments and agencies. The requirements for reporting FTE employment in the President's Budget are prescribed in Section 85 of OMB Circular No. A-11 on "Estimating Employment Levels and the Employment Summary (Schedule Q)."[4]

FTE data are published annually in OMB's the *Budget of the United States Government* under the individual department and agency accounts in the *Appendix* as well as in the *Analytical Perspectives* and *Historical Tables* volumes.[5]

Method 2: On-board Employment (OPM)

OPM defines on-board employment as the number of employees in pay status at the end of the quarter. Data for on-board employment provides employee "head count" in most departments and agencies as of a particular date, including full-time, part-time, and seasonal employees. OPM's *Employment and Trends* report[6] and OPM's FedScope database[7] provide on-board employment headcounts.

[4] U.S. Executive Office of the President, Office of Management and Budget, *Preparation, Submission, and Execution of the Budget*, (Washington: GPO, July 2017), available at https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/a11_current_year/a11_2017.pdf. In part, the OMB Circular states, "However, in order to take advantage of existing payroll data, agencies may compute prior year FTE actuals using the regular hours obtained from their pay systems based on 26 bi-weekly pay periods (even in a year with 27 pay periods) and divide by a constant 2,080 hours."

[5] For example, see U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Analytical Perspectives Fiscal Year 2018* (Washington: GPO, 2017), pp. 61-62 and U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Historical Tables Fiscal Year 2018* (Washington, GPO, 2017), pp. 367-368.

[6] U.S. Office of Personnel Management, *Federal Civilian Workforce Statistics, Employment and Trends* (Washington: OPM). The January 2009 to September 2013 reports are available at http://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/#url=Employment-Trends.

[7] U.S. Office of Personnel Management, FedScope database, available at http://www.fedscope.opm.gov/. The database includes all executive branch agencies except the Board of Governors of the Federal Reserve System, the Central Intelligence Agency, the Defense Intelligence Agency, foreign service personnel at the State Department, the National Geospatial Intelligence Agency, the National Security Agency, the Office of the Director of National Intelligence, the Office of the Vice President, the Postal Regulatory Commission, the Tennessee Valley Authority, the White House Office, and the U.S. Postal Service. It does not include the Foreign Service. For further information, see the discussion on database "Coverage," available at http://www.fedscope.opm.gov/datadefn/aehri_sdm.asp.

When calculating on-board personnel, the number of full-time, part-time, and seasonal workers at an agency is relevant. For example, an agency reporting 10 FTEs could conceivably report 20 "on-board" employees, depending on employees' work schedules.

In addition, the "on-board" headcount may result in wide variances in employment numbers, depending on the specific date the employees are counted. For example, the Census Bureau hires 7,000 Census enumerators every 10 years. The federal on-board employees count is likely to be larger during the duration of their employment.

Office of Personnel Management

OPM is an independent agency that functions as the central human resources department of the executive branch. In fulfilling its mission, OPM collects, maintains, and publishes data on a large portion of the federal civilian workforce.

In FY2010, OPM established a system called the Enterprise Human Resources Integration-Statistical Data Mart (EHRI-SDM). This automated system provides access to personnel data for 96% of non-postal federal civilian executive branch employees. The database does have exclusions, for example, not all executive branch agencies submit their personnel data to OPM. These exclusions include some national security and intelligence agencies, and the Postal Service.[8] Even with these exclusions, the EHRI-SDM is widely regarded as the most comprehensive resource available on the size and scope of the federal workforce.

More than 100 data elements are collected for each federal employee within the EHRI-SDM. These data are aggregated by OPM and published in the resources described below.

FedScope

FedScope is a website that provides public access to the EHRI-SDM, covering the most recent five years of employment, accession, and separation data provided by approximately 120 federal agencies.[9] It is available at http://www.fedscope.opm.gov/.

FedScope data are presented in five subject categories, called "cubes," each covering a different subject and time span.[10] The following are descriptions of the data cubes available through FedScope:

- **Employment**. This set of cubes contains the total number of federal employees of the included agencies, as well as other information such as age, gender, length of service, occupation, occupation category, pay grade, salary level, type of appointment, work schedule, agency, and location. Data are published quarterly (March, June, September, and December) for the most recent seven fiscal years. September data, which align with the end of the fiscal year, are available from 1998 to the present.

[8] For detailed analysis of USPS employment, see CRS Report RS22864, *U.S. Postal Service Workforce Size and Employment Categories, FY1995-FY2014,* by Kathryn A. Francis.

[9] For further information, see the section market "Coverage," available at http://www.fedscope.opm.gov/datadefn/aehri_sdm.asp.

[10] For definitions of each variable, see Office of Personnel Management, "FedScope Data Definitions," February 18, 2014, available at http://www.fedscope.opm.gov/datadefn/DataDefinitions.pdf.

- **Accession**. This set of cubes contains the number of people added to the federal civilian workforce each fiscal year. It includes data elements on employees hired from outside the government and those who transferred from one type of federal service category to another.[11] The most recent 12 fiscal years of data are available.
- **Separation**. This set of cubes contains the number of people who leave the federal civilian workforce each fiscal year. It captures data elements on employees who transferred to other agencies, voluntarily resigned, retired, experienced a reduction-in-force (RIF), were terminated, or died while employed. The most recent 12 years of data are available.
- **Employment Trends**. This set of cubes displays the most recent five years of employment cube data together in one interface, facilitating workforce data comparisons and trend recognition.
- **Diversity**. This set of cubes sorts data by an Ethnicity and Race Indicator. Data elements for 13 categories of racial and ethnic groups are available for the most recent seven years. September data, which align with the end of the fiscal year, are available from 2006 to the present.

Table 2 provides some of the most commonly requested data available from FedScope.

Table 2. Federal Civilian Employees On-Board Personnel, 2011-2017

	2011	2012	2013	2014	2015	2016	2017
United States	2,076,584	2,057,701	2,018,129	1,998,681	2,029,158	2,053,984	2,045,296
U.S. Territories	15,308	14,910	14,417	14,548	12,436	12,171	12,404
Foreign Countries	37,168	36,108	33,486	31,354	29,173	29,942	29,088
Unspecified Areas	1,229	1,502	1,230	1,224	949	941	959
Total	2,130,289	2,110,221	2,067,262	2,045,707	2,071,716	2,097,038	2,087,747

Source: Office of Personnel Management (OPM), FedScope, http://www.fedscope.opm.gov.

Notes: Each total is an "on-board" count for September of the year noted. Current coverage does not include the Board of Governors of the Federal Reserve, Central Intelligence Agency, Defense Intelligence Agency, foreign service personnel at the State Department, National Geospatial-Intelligence Agency, National Security Agency, Office of the Director of National Intelligence, Office of the Vice President, Postal Regulatory Commission, Tennessee Valley Authority, U.S. Postal Service, White House Office, foreign nationals overseas, Public Health Service's Commissioned Officer Corps, non-appropriated fund employees, selected legislative branch agencies, the judicial branch, or the military.

Employment and Trends

Employment and Trends is an occasional publication from OPM based on on-board employee data. It provides data on executive departments and independent agencies, including the Department of Defense (DOD) civilian employees, Executive Office of the President, legislative branch, and judicial branch. It presents selected data in detailed statistical tables and includes information by government branch, agency, and location. Introductory material in *Employment and Trends* explains the data presented, time lags in data releases, and caveats to consider when calculating workforce totals. The most recently released version of this resource is available at

[11] The three service categories are competitive service, excepted service, and Senior Executive Service.

http://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/#url=Employment-Trends.

Common Characteristics of Government

Common Characteristics of Government is an annual publication that includes a brief outline of OPM's federal employee databases and it includes frequently requested data. The latest edition (FY2016) is available at https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/common-characteristics-of-the-government/ccog2016.pdf.

Sizing Up the Executive Branch of the Federal Workforce

Sizing Up the Executive Branch of the Federal Workforce is an OPM report that provides access to frequently requested data related to the executive branch. This report includes some information related to the size of the executive branch by month and year, types of employment, and other frequently requested data. The most recent report (FY2016) is available at https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/reports-publications/sizing-up-the-executive-branch-2016.pdf.

Office of Management and Budget

OMB is the largest component of the Executive Office of the President. OMB reports directly to the President, and it assists executive departments and agencies in implementing priorities and commitments of the President.[12] OMB produces the *Budget of the United States*, which includes federal employee statistics created using the FTE counting method.

Budget of the United States

The Budget of the United States, sometimes referred to as the President's Budget, is a four-volume set of documents that includes detailed financial information on individual programs and appropriations accounts. Three volumes of the budget include information on direct civilian FTEs.[13] Tables in the President's Budget typically include actual FTE levels for prior fiscal years and estimates for the two most current fiscal years. The U.S. Government Publishing Office website posts budget volumes dating back to FY1996 at http://www.gpo.gov/fdsys/browse/collectionGPO.action?collectionCode=BUDGET.

Table 3 illustrates an example of some commonly requested federal employment data found within the President's Budget.

[12] More information on OMB's mission and structure can be found at http://www.whitehouse.gov/omb/.

[13] U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Analytical Perspectives Fiscal Year 2018* (Washington: GPO, 2017), pp. 61-62; U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Historical Tables Fiscal Year 2018* (Washington, GPO, 2017), pp. 367-368; and U.S. Executive Office of the President, Office of Management and Budget, *Budget of the United States Government Appendix Fiscal Year 2018* (Washington: GPO, 2017), pages on which "Employment Summary" table appears (i.e., Capitol Police on p. 14, Office of Compliance, p. 15, Congressional Budget Office on p. 16, Architect of the Capital Programs on pp. 16-23).

Table 3. Total Federal Employment

(as measured by full-time equivalents)

Description	2016 Actual	2017 Estimate	2018 Estimate	Change: 2017 to 2018	
				FTE	Percentage
Executive Branch Civilian					
All Agencies, Excluding Postal Service	2,057,256	2,086,959	2,085,973	-986	[a]
Postal Service[b]	632,276	588,965	588,380	-585	-0.1%
Subtotal, Executive Branch Civilian	2,689,532	2,675,924	2,674,353	-1,571	0.1%
Executive Branch Uniformed Military					
Department of Defense[c]	1,343,801	1,336,589	1,352,081	15,492	1.1%
Department of Homeland Security (USCG)	39,992	4,045	41,460	1,415	3.4%
Commissioned Corps (DOC, EPA, HHS)	6,910	6,930	7,060	130	1.8%
Subtotal, Uniformed Military	1,390,703	1,383,564	1,400,601	17,037	1.2%
Subtotal, Executive Branch	4,080,235	4,059,488	4,074,954	15,466	0.4%
Legislative Branch[d]	29,718	33,154	33,530	376	1.1%
Judicial Branch	32,657	33,197	33,541	344	1.0%
Grand Total	**4,142,610**	**4,125,839**	**4,142,025**	**16,186**	**0.4%**

Source: *President's FY2087 Budget, Analytical Perspectives*, Table 7-2, p. 62, https://www.gpo.gov/fdsys/pkg/BUDGET-2018-PER/pdf/BUDGET-2018-PER.pdf.

a. Non-zero less than 0.1%.

b. Includes Postal Rate Commission.

c. Includes activated Guard and Reserve members on active duty. Does not include Full-Time Support (Active Guard & Reserve [AGRs]) paid from Reserve Component Appropriations.

d. FTE data not available for the Senate (positions filled were used for actual year and extended at same level).

The following volumes of the President's Budget include information on federal employees. The current volumes can be accessed at https://www.whitehouse.gov/omb/budget.[14]

Analytical Perspectives

The *Analytical Perspectives* volume typically includes information on the federal workforce, sometimes including information on occupations, trends, education level, age distribution, and other factors. The most current *Analytical Perspectives* volume of the President's Budget is available at http://www.whitehouse.gov/omb/analytical-perspectives/.

Appendix

The *Appendix* volume typically includes an estimate of individual agency FTEs based on the President's proposal along with an estimate and actual FTE count for the prior two years. The

[14] The U.S. Government Publishing Office website posts complete volumes of the *Budget of the United States Government* back to FY1996. They can be accessed at http://www.gpo.gov/fdsys/browse/collectionGPO.action?collectionCode=BUDGET.

most recent *Appendix* volume of the President's Budget is available at http://www.whitehouse.gov/omb/appendix.

Historical Tables

The *Historical Tables* volume of the President's Budget includes historical data on topics such as budget, receipts, outlays, and deficits. This volume also typically includes historical employment counts. The most recent *Historical Tables* volume of the President's Budget is available at http://www.whitehouse.gov/omb/historical-tables.

Consideration of Sources

The resources described in this report contain data often requested by Members or congressional staff. The sources covered differ in the methodology, including exclusions, and the frequency of data collection. Users should be aware of these differences when using federal workforce statistics from these sources.

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