



Getty Images/Hiroiyuki Matsumoto

# Federal Spending in the States

## Appendix: Methodology

### Overview

For nearly three decades, the U.S. Census Bureau produced an annual report on the geographic distribution of federal spending. As the only comprehensive source providing detail on how and where federal funds for retirement and nonretirement benefits payments, grants, contracts, and salaries and wages are spent, the Consolidated Federal Funds Report (CFFR) was widely used by analysts and policymakers at all levels of government. In 2012, however, after the publication of fiscal year 2010 data, the U.S. Census Bureau discontinued the report.

To address the resulting data gap, The Pew Charitable Trusts used publicly available data sets to re-create and extend CFFR's state-level analysis for fiscal 2004 through 2013, the most recent 10-year period for which all data are available. Pew's figures closely track the CFFR for the years they overlap. For example, Pew's calculation of total federal spending in the states in fiscal 2010 was \$3.20 trillion, equal to 99 percent of the \$3.23 trillion in spending included in the last CFFR.

Like the CFFR, Pew's analysis breaks federal spending into five categories: retirement benefits, nonretirement benefits, grants, contracts, and salaries and wages. Both Pew's analysis and the CFFR cover most, but not all, federal budget outlays reported in the president's budget. Outlays that are excluded from the analysis include loans, insurance, overseas spending, interest on the federal debt, and other expenditures that cannot be assigned to a specific state, such as spending that is classified for national security purposes. For 2004 to 2013, Pew's calculations of federal spending in the states equal 90 percent of total federal spending each year.<sup>1</sup>

This appendix details the data sources used for each category, compares Pew's figures with those of the CFFR for overlapping years, and explains where and why differences exist.

Table A.1

## CFFR Spending Categories, and Data Sources Used to Reproduce Them

CFFR category	→	Pew data source
Retirement benefits	→	Bureau of Economic Analysis
Nonretirement benefits	→	Bureau of Economic Analysis
Grants	→	USAspending.gov
Contracts	→	USAspending.gov
Salaries and wages	→	Bureau of Economic Analysis

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### Retirement and nonretirement benefits

Pew uses the Bureau of Economic Analysis (BEA) State Personal Income and Employment report to capture most federal spending for retirement and nonretirement benefits.<sup>2</sup> For most of these benefits to individuals—including the largest, such as Social Security, Medicare, and unemployment insurance—BEA collects data directly from federal agencies.<sup>3</sup> Otherwise, it collects data from federal databases (such as USAspending.gov) or calculates its own estimates. Like the CFFR, the BEA report includes certain tax credits, such as the refundable portion of the earned income tax credit.

The BEA benefits data include direct payments from state and local governments as well as payments from some federal grant programs. To isolate federal direct payments and avoid double counting of grant spending that is captured elsewhere in the analysis, Pew makes certain adjustments to the data:

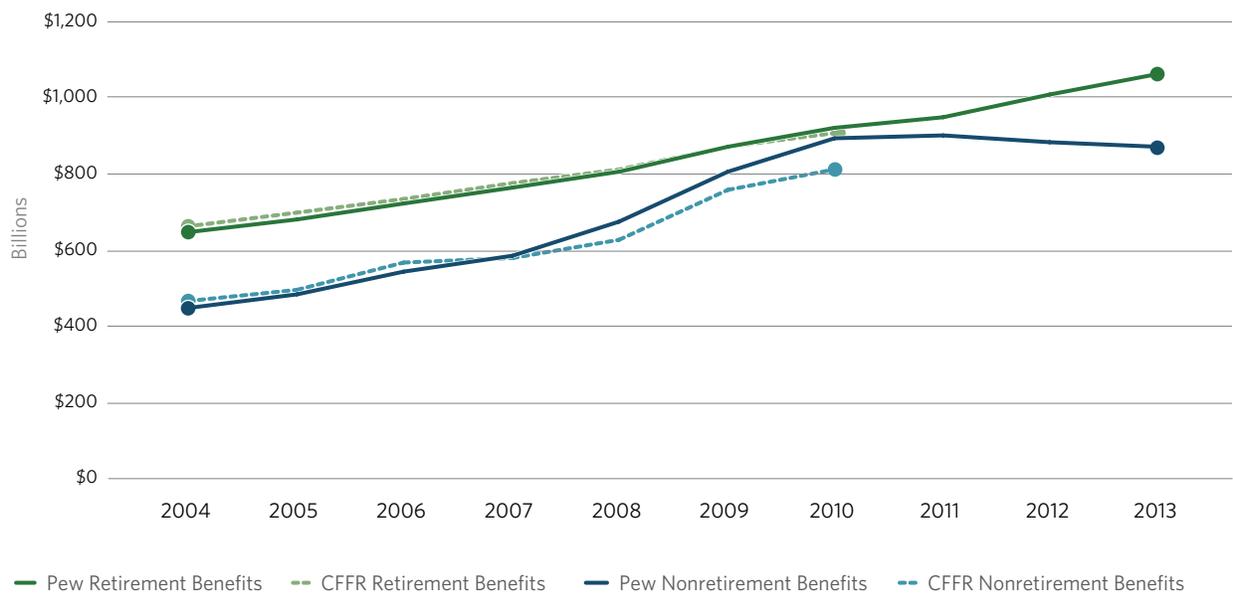
- Pew’s retirement and nonretirement benefits categories exclude federal grants to states, such as Medicaid, the Children’s Health Insurance Program, and Temporary Assistance for Needy Families. These are included in Pew’s grants spending category.
- Pew’s analysis excludes benefits included in the BEA data that are entirely state-funded, such as state retirement and disability insurance.

In cases where it is relatively straightforward to do so, the analysis removes nonfederal spending from categories that include benefit payments from multiple levels of government. For example, Pew removes Alaska’s Permanent Fund payments from the “other transfer receipts” category.<sup>4</sup> For some benefits, however, it is difficult to separate federal from nonfederal spending. In such cases, the analysis removes payments that include a relatively small amount of federal spending but are predominantly state-funded, such as workers’ compensation. On the other hand, the analysis counts some benefits, such as Supplemental Security Income, that are predominantly federally funded but include some state spending that cannot be easily extracted.

## Retirement benefits

The CFFR's retirement benefits category included federal pension, disability, Social Security, and other payments. The BEA data that Pew uses to capture retirement spending do not include most federal pension payments. Therefore, Pew supplements the BEA data with federal pension data from the Office of Personnel Management and Department of Defense Office of the Actuary.<sup>5</sup> Using all three sources, Pew's figures for retirement benefits track closely with the CFFR figures over the most recently available seven-year period. (See Figure A.1.)

Figure A.1  
Benefits Comparison, Federal Fiscal 2004-13



Source: Pew analysis of data from the U.S. Department of Commerce Bureau of Economic Analysis; U.S. Census Bureau; U.S. Office of Personnel Management; U.S. Department of Defense; and Alaska Department of Revenue

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## Nonretirement benefits

The CFFR's nonretirement benefits category included programs such as Medicare, unemployment insurance, and food stamps. Pew's calculations of federal spending on nonretirement payments also track closely with the CFFR. (See Figure A.1.) Pew's figures diverge from CFFR's starting in fiscal 2008, due primarily to differing treatments of unemployment insurance payments. Specifically, BEA data comprise all forms of unemployment payments, including federal emergency benefits that were authorized in 2008 and extended through 2013; the CFFR did not include these latter payments. Outlays for emergency unemployment benefits totaled more than \$80 billion in fiscal 2010, which explains most of the difference between Pew's and CFFR's nonretirement figures for that year.<sup>6</sup>

## Grants

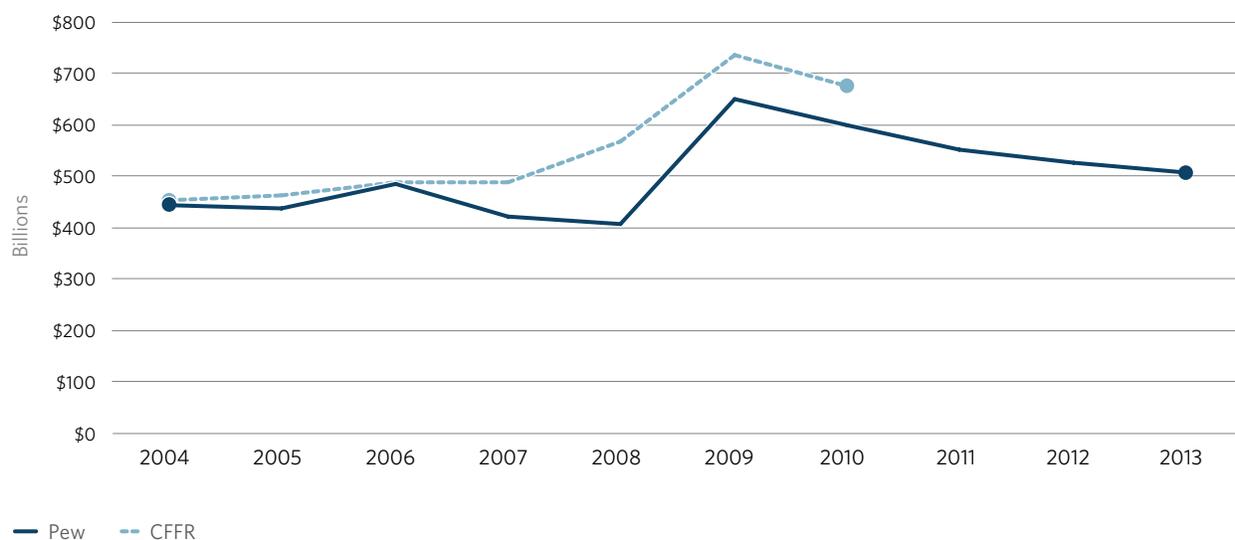
To capture federal funding for grants to state and local governments and other nonfederal entities, Pew uses USA Spending.gov, the federal government's spending transparency website.<sup>7</sup> Federal agencies report grants data directly to the site, which posts the information without verifying its accuracy.<sup>8</sup> By contrast, the grants data in the CFFR came from the Federal Assistance Award Data System (FAADS), a central repository that the Census Bureau maintained and reviewed for accuracy. Census discontinued FAADS in 2012 along with the CFFR.

Because USA Spending.gov data are not screened for accuracy, the site has well-known problems with data quality: In 2014, the Government Accountability Office estimated that fewer than 8 percent of USA Spending.gov records completely matched agency records.<sup>9</sup> The site's data quality is expected to improve in response to the GAO findings and to requirements in the Digital Accountability and Transparency Act of 2014. Because Pew's analysis uses BEA data for benefits to individuals, it is relatively unaffected by USA Spending.gov's most serious data-quality issues, which pertain to those payments. Additionally, Pew avoids using the fields in the grants records that have the biggest problems, such as street address and project description, and also aggregates the data at the state level.

Pew uses the location of the grant recipient—rather than where the money was spent—to derive total federal grant spending by state. The CFFR used the same method. For example, if a Maryland-based entity is awarded grant money that it spends on projects in Maryland, Virginia, and the District of Columbia, the total grant award is counted in Maryland.

Pew finds a similar trend in federal grant spending to that in the CFFR, including a spike in grants in fiscal 2009 and 2010 (due to the American Recovery and Reinvestment Act), followed by a gradual tapering. (See Figure A.2.)

Figure A.2  
Grants Comparison, Federal Fiscal 2004–13



Source: Pew analysis of data from USA Spending.gov and U.S. Census Bureau

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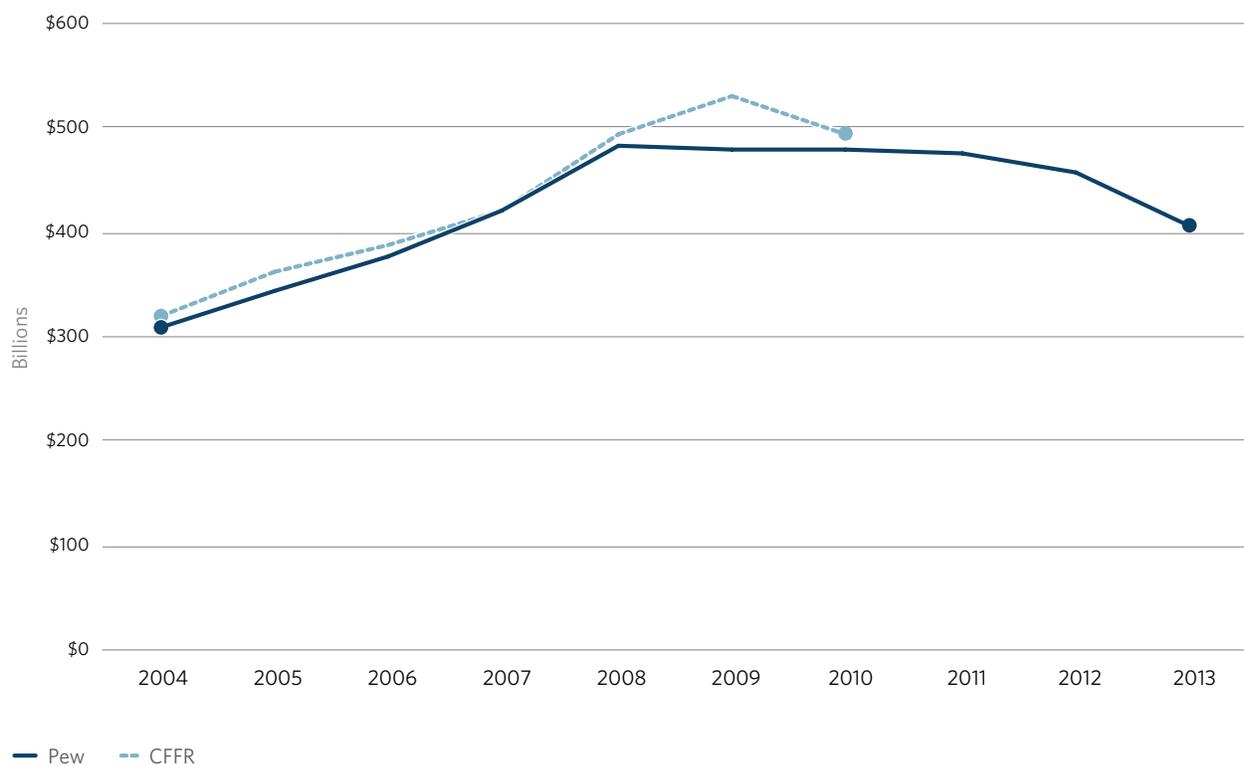
## Contracts

Pew also collects data on federal contract awards from USAspending.gov, which is the only available public source of detailed information on these expenditures.<sup>10</sup> Like the CFFR, USAspending.gov gathers procurement data from the General Services Administration's Federal Procurement Data System-Next Generation, a central repository for federal agencies' reports on all contracts above \$3,000.<sup>11</sup> Although there are some concerns about the quality of USAspending.gov's contracts data, there are fewer issues than with the grants and benefits data.<sup>12</sup>

Like the CFFR, Pew categorizes the data by where the contract work was performed rather than where the contract recipient has its headquarters. For instance, if a contractor is headquartered in one state and works on a project in another state, the contract award is counted in the latter.<sup>13</sup>

Because this analysis uses the same data source as the CFFR, it shows a similar level of federal spending over time, with the exception of fiscal 2009 and 2010, the last two years of data in the CFFR. (See Figure A.3.) The divergence is probably the result of underreporting within USAspending.gov of contracts awarded during the American Recovery and Reinvestment Act of 2009.<sup>14</sup>

Figure A.3  
Contracts Comparison, Federal Fiscal 2004–13



Source: Pew analysis of data from USAspending.gov and U.S. Census Bureau

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## Salaries and wages

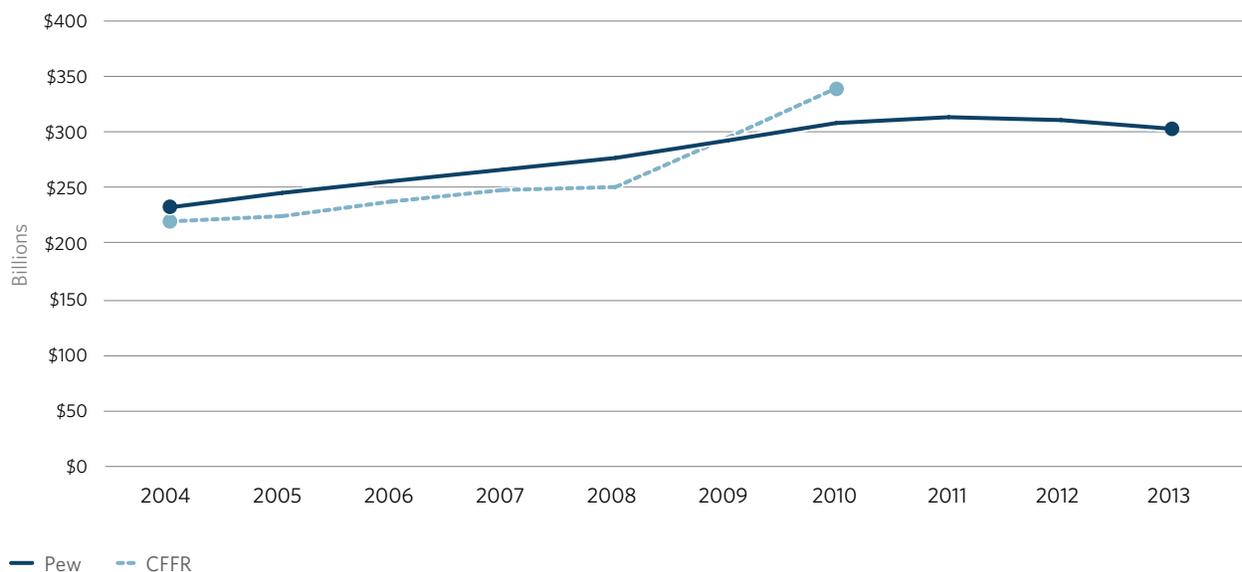
Federal civilian and military salaries and wages are derived from quarterly data from BEA's State Personal Income and Employment report. BEA's civilian salary and wage data come from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages, a survey of state unemployment offices that provide data on workers in their states, including those employed by the three branches of the federal government. For military salaries and wages, BEA creates estimates using employment data from the Department of Defense. By contrast, the CFFR collected payroll data directly from the Department of Defense and the Office of Personnel Management. While those sources provided comprehensive data on executive branch salaries at the national and state levels, they had limited state-level data on congressional and judicial compensation.

The BEA and CFFR report salaries and wages by place of employment rather than residence, and they use similar definitions of wages and salaries.<sup>15</sup> Specifically, both include basic pay and overtime but exclude supplements to wages and salaries, such as employer contributions for employee pension and insurance funds and government social insurance programs such as Social Security and Medicare.

Generally, BEA salary and wage data track closely with the CFFR's for the most recently available seven-year period for which both reports were produced: fiscal 2004 through 2010. (See Figure A.4.) Because BEA's report includes information for employees in the judicial and legislative branches, it shows slightly higher spending levels for salaries and wages compared with the CFFR through fiscal 2008. In fiscal 2009 and 2010, the CFFR indicates a sharp rise in spending on salaries and wages. These upticks are due almost entirely to reported annual increases for Army compensation of 110 percent and 53 percent, respectively, which the final report attributed to unspecified updates in the Defense Department's methodology.

Figure A.4

### Salaries and Wages Comparison, Federal Fiscal 2004–13



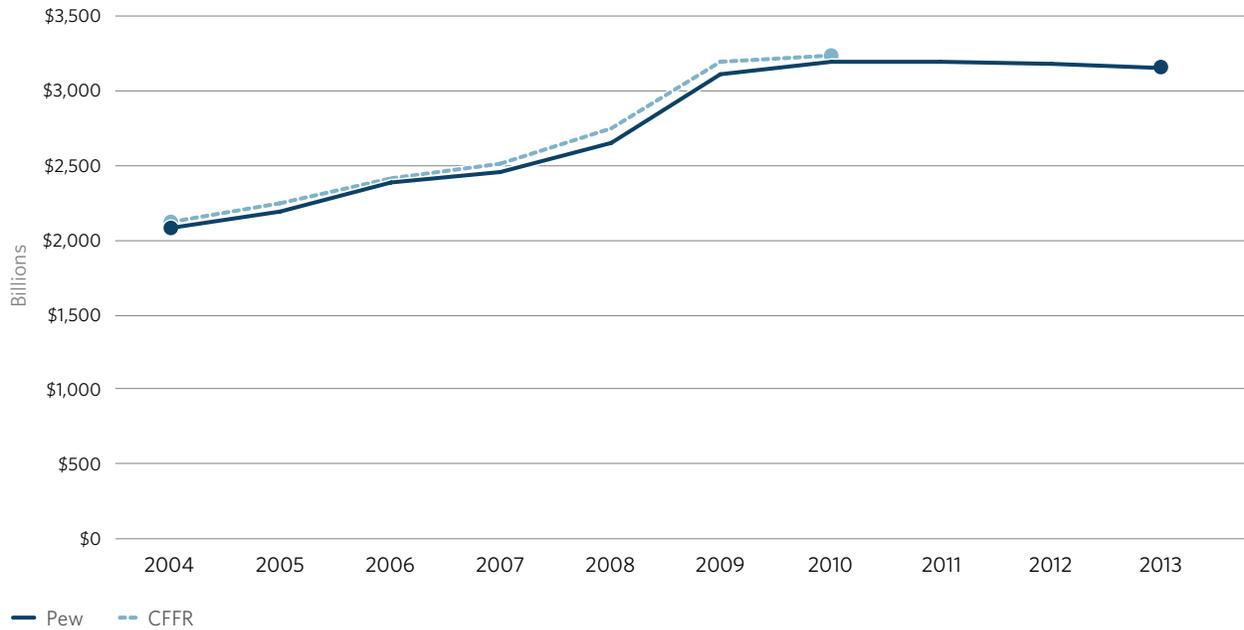
Source: Pew analysis of data from the U.S. Department of Commerce Bureau of Economic Analysis and U.S. Census Bureau

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## Overall comparison

When all five categories are combined, Pew's total federal spending figures closely track with totals for the most recent seven-year period for which CFFR data are available. (See Figure A.5.) For fiscal 2010, for example, Pew's total of \$3.20 trillion is 99 percent of the \$3.23 trillion total in the CFFR.

Figure A.5  
Total Comparison, Federal Fiscal 2004–13



Sources: Pew analysis of data from the U.S. Department of Commerce Bureau of Economic Analysis; USAspending.gov; U.S. Census Bureau; U.S. Office of Personnel Management; U.S. Department of Defense; and Alaska Department of Revenue

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## Endnotes

- 1 Office of Management and Budget, "Fiscal Year 2015 Historical Tables: Budget of the U.S. Government," <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2015/assets/hist.pdf>. This statistic compares Pew's totals with budget outlays from the president's budget. Pew's totals are most comparable to budget outlays because most of the dollars reported in Pew's analysis are actual expenditures. However, a direct comparison with federal budget figures is difficult for at least two reasons. First, Pew's figures for contracts and grants, which account for less than one-third of the total spending, are shown as obligations, not expenditures. Second, Pew's analysis includes some spending, such as salaries and wages for the U.S. Postal Service, which is not included in federal outlay totals.
- 2 BEA refers to such benefits as "personal current transfer receipts." Pew uses the more detailed annual data and converts it from calendar year to fiscal year rather than using the more limited benefits data that are available quarterly.
- 3 Federal and state revenue finances federal unemployment insurance benefits.
- 4 Alaska Department of Revenue, "Historical Summary of Dividend Applications and Payments," accessed Oct. 7, 2014, <http://pfd.alaska.gov/DivisionInfo/SummaryApplicationsPayments>; U.S. Census Bureau, "State Government Finances," multiple years, <http://www.census.gov/govs/state>; and U.S. Census Bureau, "State and Local Government Finances," multiple years, <http://www.census.gov/govs/local>. Pew collects calendar-year estimates of Alaska Permanent Fund payments directly from the Alaska Department of Revenue's website. Pew also removes state education assistance benefits, which are payments from states to individuals for education costs such as tuition. State fiscal year data on these payments are available from the Census Bureau's State Government Finances report, under the "State Government Scholarships and Other Subsidies" assistance and subsidies category. Finally, Pew subtracts state and local general assistance payments from the BEA data. These are cash payments from state and local governments to individuals, such as general poverty assistance, housing assistance, and refugee assistance. For these payments, Pew uses data from the Census Bureau's State and Local Government Finances report, from the "Public Welfare—Other Cash Assistance Programs" category.
- 5 Office of Personnel Management, "Employee & Survivor Annuitants by Geographic Distribution," multiple years, <http://www.opm.gov/data/Index.aspx?tag=Annuitants>; and U.S. Department of Defense Office of the Actuary, "Statistical Report on the Military Retirement System," multiple years, <http://actuary.defense.gov>. The OPM data are available on OPM's website for fiscal 2006 through 2010; data for the remaining fiscal years were provided by OPM upon request. Defense data are available for fiscal 2004 through 2013.
- 6 Congressional Budget Office, "Unemployment Insurance in the Wake of the Recent Recession" (November 2012), <http://www.cbo.gov/publication/43734>.
- 7 Government Accountability Office, "Data Transparency: Oversight Needed to Address Underreporting and Inconsistencies on Federal Award Website" (June 2014), <http://www.gao.gov/assets/670/664536.pdf>. USAspending.gov covers all executive branch agencies and requires reporting on grant awards over \$25,000. USAspending.gov grants data last accessed Oct. 1, 2014.
- 8 Government Accountability Office, "Data Transparency"; and Office of Management and Budget, "Reporting Requirements of the Federal Funding Accountability & Transparency Act (FFATA) and Using the FFATA Subaward Reporting System (FSRS)" (June 9, 2010), <http://federalawards.hawaii.gov/wp-content/uploads/2014/06/Reporting-Requirements-of-FFATA-6.9.14.pdf>. Currently, the site performs only basic validation checks. For instance, USAspending.gov will not allow a record to be uploaded if it lacks an entry for the "recipient name" field. The site will begin performing more data checks in 2015, such as correcting misspelled state names.
- 9 Government Accountability Office, "Data Transparency." An earlier GAO report selected 100 records for examination and found errors in all of them.
- 10 USAspending.gov contracts data last accessed Oct. 1, 2014.
- 11 Federal Procurement Data System—Next Generation, "FPDS-NG FAQ," [https://www.fpds.gov/wiki/index.php/FPDS-NG\\_FAQ](https://www.fpds.gov/wiki/index.php/FPDS-NG_FAQ). Some federal contracts are excluded from USAspending.gov, including those for less than \$3,000, those awarded by the legislative and judicial branches and by executive agencies not covered by the Federal Acquisition Regulation, and certain contracts related to national security. The CFFR also excluded such contracts.
- 12 William T. Woods, "Federal Contracting: Observations on the Government's Contracting Data Systems," Government Accountability Office (Sept. 29, 2009), <http://www.gao.gov/assets/130/123442.pdf>.
- 13 The place of performance refers to the location of the prime contractor. In cases where that contractor subcontracts out some of the work, the location(s) of the subcontractor(s) may not be reflected in the data.
- 14 USAspending.gov, "Data Feeds," <http://usaspending.gov/data>; and Recovery.gov, "State/Territory Totals by Award Type," <http://www.recovery.gov/arra/Transparency/RecoveryData/Pages/RecipientAwardSummarybyState.aspx>. According to Recovery.gov, there were almost \$42 billion in American Recovery and Reinvestment Act contracts from fiscal 2009 through 2014, but USAspending.gov shows only \$37 billion.
- 15 As a result, federal spending on salaries and wages as reported in the CFFR and the BEA data may be overstated or understated for areas with a high percentage of commuters, such as the District of Columbia, Maryland, and Virginia.

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**For further information, please visit:**  
[pewtrusts.org/fiscal-federalism](https://pewtrusts.org/fiscal-federalism)

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