



Federal and State Funding of Higher Education

A changing landscape

The Pew Charitable Trusts

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Overview

States and the federal government have long provided substantial funding for higher education, but changes in recent years have resulted in their contributions being more equal than at any time in at least the previous two decades.¹ Historically, states have provided a far greater amount of assistance to postsecondary institutions and students; 65 percent more than the federal government on average from 1987 to 2012.² But this difference narrowed dramatically in recent years, particularly since the Great Recession, as state spending declined and federal investments grew sharply, largely driven by increases in the Pell Grant program, a need-based financial aid program that is the biggest component of federal higher education spending.

Although their funding streams for higher education are now comparable in size and have some overlapping policy goals, such as increasing access for students and supporting research, federal and state governments channel resources into the system in different ways. The federal government mainly provides financial assistance to individual students and specific research projects, while state funds primarily pay for the general operations of public institutions.

Policymakers across the nation face difficult decisions about higher education funding. Federal leaders, for example, are debating the future of the Pell Grant program. The Obama administration has proposed increasing the maximum Pell Grant award to keep pace with inflation in the coming years, while members of Congress have recommended freezing it at its current level.³ State policymakers, meanwhile, are deciding whether to restore funding after years of recession-driven cuts.⁴ Their actions on these and other critical issues will help determine whether the shift in spending that resulted in parity is temporary or a lasting reconfiguration.

In a constrained fiscal environment, policymakers also will need to consider whether there are better means of achieving shared goals, including student access and support for research.⁵ Such approaches could entail more coordination, other funding mechanisms, or policy reforms. In addition, it will be necessary to think about the implications of parity and whether funding strategies will require changes in order to reach desired outcomes. This chartbook is intended to provide a starting point for answering such questions by illustrating the existing federal-state relationship in higher education funding, the way that relationship has evolved, and how it differs across states.

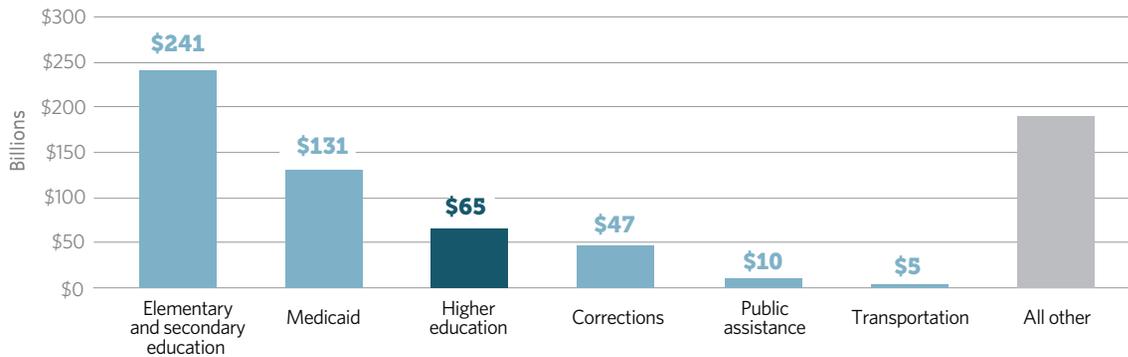
Figure 1

Higher Education Is a Small but Important Part of Federal Spending and the Third-Largest Category in State Budgets

Higher education within the federal budget (\$3.5 trillion), federal fiscal year 2013



Major categories of state general fund spending, state fiscal year 2013



Note: These data include funding that flows to public, nonprofit, and for-profit higher education institutions and their students, excluding federal loans and tax expenditures. See Appendix B for more details.

Sources: Pew's analysis of data from the U.S. Office of Management and Budget, *Historical Tables* (Feb. 2015); U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015); U.S. Department of Education, *FY2015 Budget Request* (March 2014) and *State Funding History Tables* (Feb. 2015); National Science Foundation, *Survey of Federal Funds for Research and Development* (June 2015); U.S. Department of Veterans Affairs, *FY2015 Budget Submission* (March 2014); and National Association of State Budget Officers, *State Expenditure Report* (Nov. 2014)

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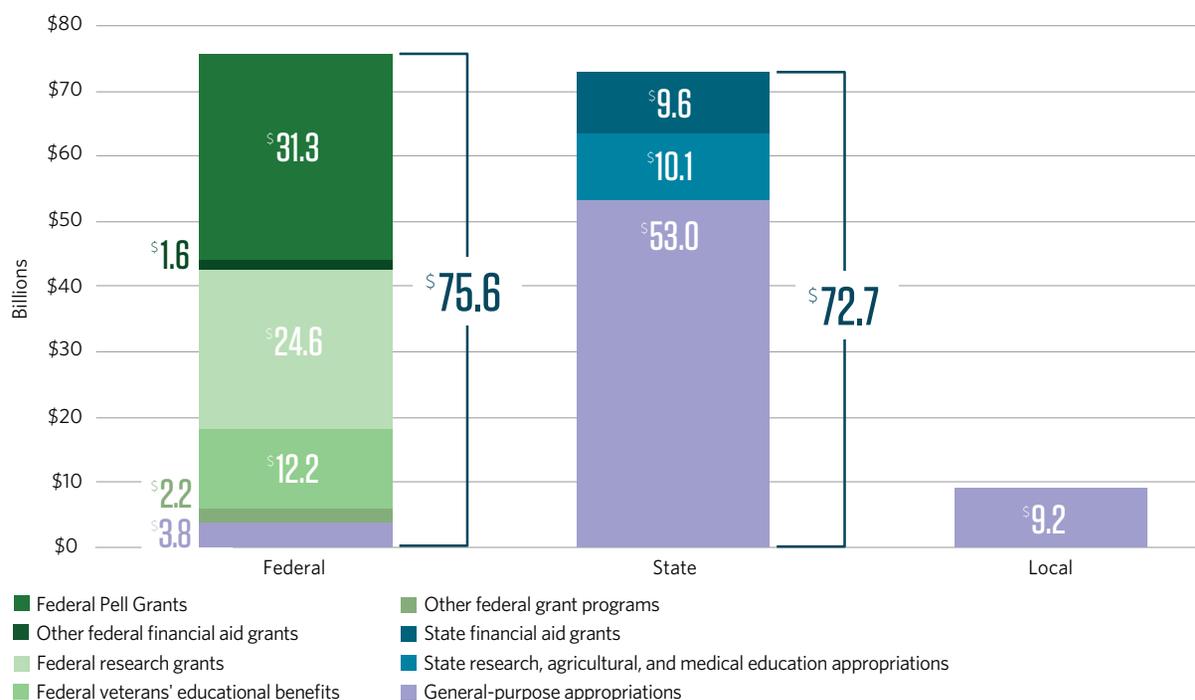
Though only about 2 percent of the total federal budget, higher education programs make up a large share of federal education investments. For example, about half of the U.S. Department of Education's budget is devoted to higher education (excluding loan programs).⁶ Higher education funding also comes from other federal agencies such as the U.S. Departments of Veterans Affairs and Health and Human Services, and the National Science Foundation.

Higher education was the third-largest area of state general fund spending in 2013 behind K-12 education and Medicaid.

Figure 2

Federal and State Investments in Higher Education Are Similar in Size, Different in Nature

Spending categories by level of government, academic year 2013



Note: These data include spending that flows to public, nonprofit, and for-profit higher education institutions and their students, excluding loans and tax expenditures. Numbers may not add up due to rounding. See Appendix B for more details.

Sources: Pew's analysis of data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015); U.S. Department of Education, *FY2015 Budget Request* (March 2014) and *State Funding History Tables* (Feb. 2015); U.S. Department of Veterans Affairs, *FY2015 Budget Submission* (March 2014); National Science Foundation, *Survey of Federal Funds for Research and Development* (June 2015); State Higher Education Executive Officers Association, *State Higher Education Finance Report: FY 2014* (April 2015); and National Association of State Student Grant and Aid Programs, *44th Annual Survey Report on State-Sponsored Student Financial Aid: 2012-2013 Academic Year* (Sept. 2014)

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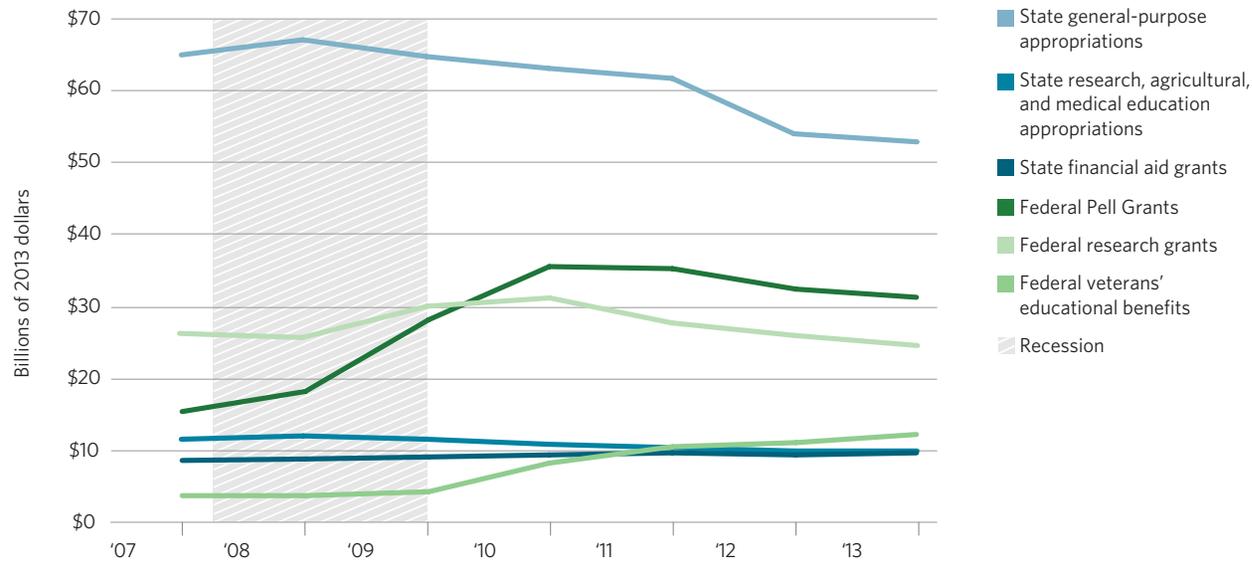
In 2013, federal spending on major higher education programs totaled \$75.6 billion, state spending amounted to \$72.7 billion, and local spending was considerably lower at \$9.2 billion.⁷ These figures exclude student loans and higher education-related tax expenditures.

Although the federal and state funding streams are comparable in size and have overlapping policy goals, such as increasing access for students and fostering research, they support the higher education system in different ways: The federal government mostly provides financial assistance to individual students and funds specific research projects, while states typically fund the general operations of public institutions, with smaller amounts appropriated for research and financial aid. Local funding of \$9.2 billion largely supports the general operating expenses of community colleges. For more information, see Appendix A.

Figure 3

The Balance Between Federal and State Higher Education Spending Shifted Significantly During and After the Great Recession

Trends in major expenditure categories, academic years 2007-13, adjusted for inflation



Funding for major federal higher education programs grew significantly from the onset of the recession, even as state support fell. The federal spending areas that experienced the most significant growth were the Pell Grant program and veterans' educational benefits, which surged by \$13.2 billion (72 percent) and \$8.4 billion (225 percent), respectively, in real terms from 2008 to 2013. The biggest decline at the state level was in general-purpose appropriations for institutions, which fell by \$14.1 billion (21 percent) over the same period. During those years, the number of full-time equivalent (FTE) students grew by 1.2 million (8 percent).⁸ For more information, see Appendix A.

Note: Includes spending that flows to public, nonprofit, and for-profit higher education institutions and their students, excluding loans and tax expenditures. See Appendix B for more details.

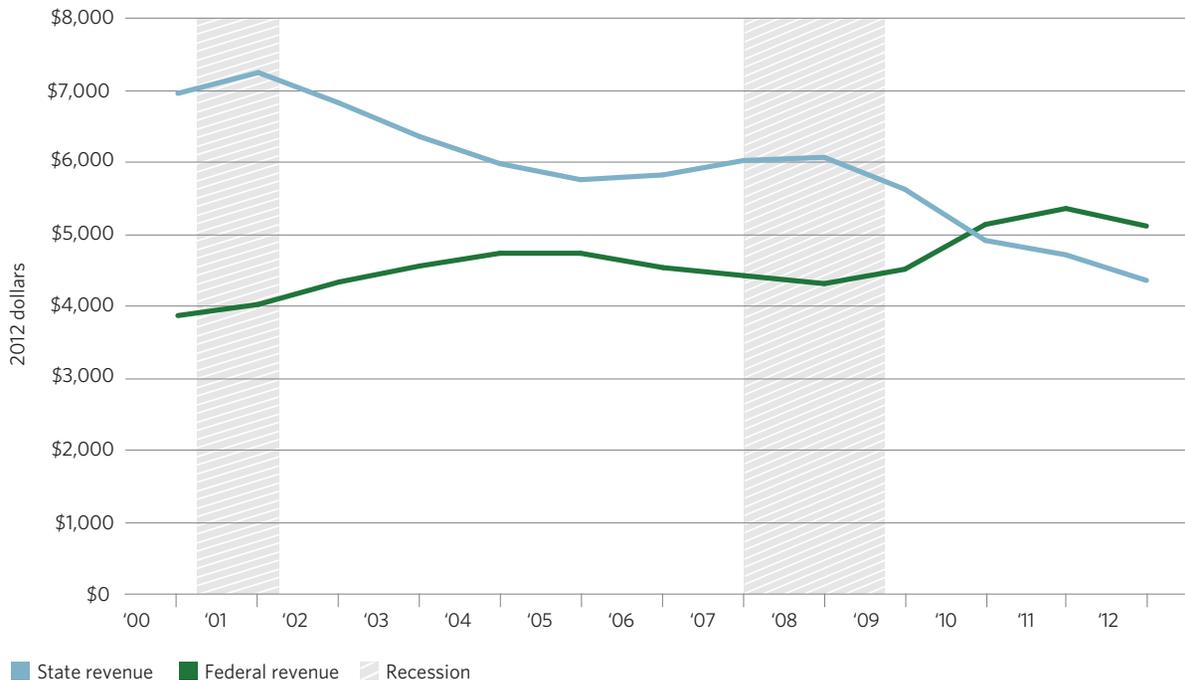
Sources: Pew's analysis of data from the U.S. Department of Education, *State Funding History Tables* (FY2007-13); National Science Foundation, *Survey of Federal Funds for Research and Development* (2007-13); State Higher Education Executive Officers Association, *State Higher Education Finance Report: FY 2014* (April 2015); National Association of State Student Grant and Aid Programs, *Annual Survey Report on State-Sponsored Student Financial Aid* (2007-13); and U.S. Department of Veterans Affairs, *Annual Budget Submission* (FY2009-15)

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Figure 4

State Funding for Higher Education Declined in Recent Years While Federal Funding Grew

Federal and state revenue per full-time equivalent student flowing to higher education institutions, fiscal years 2000-12, adjusted for inflation



Note: This figure includes funding that flows to public, nonprofit, and for-profit higher education institutions and their students, excluding loans and tax expenditures. See Appendix B for more details.

Sources: Pew's analysis of data from the Delta Cost Project Database (May 2015), based on original data from U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System

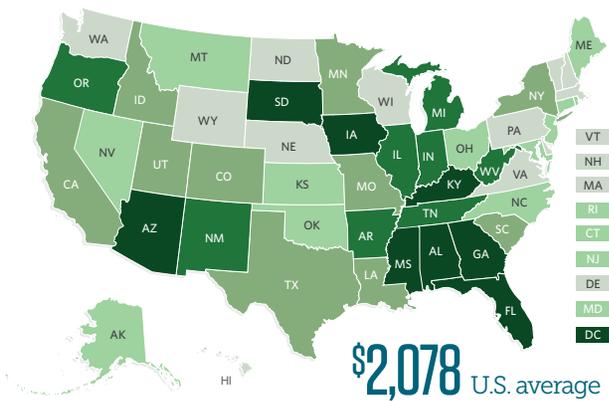
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A major shift has occurred in the relative levels of funding provided by states and the federal government in recent years. By 2010, federal revenue per full-time equivalent (FTE) student surpassed that of states for the first time in at least two decades, after adjusting for enrollment and inflation. From 2000 to 2012, revenue per FTE student from federal sources going to public, nonprofit, and for-profit institutions grew by 32 percent in real terms, while state revenue fell by 37 percent. The number of FTE students at the nation's colleges and universities grew by 45 percent during the same period. Without adjusting for enrollment growth, total federal revenue grew by 92 percent from \$43.3 billion to \$83.2 billion in real terms, while state revenue fell by 9 percent from \$77.8 billion to \$70.8 billion after adjusting for inflation.

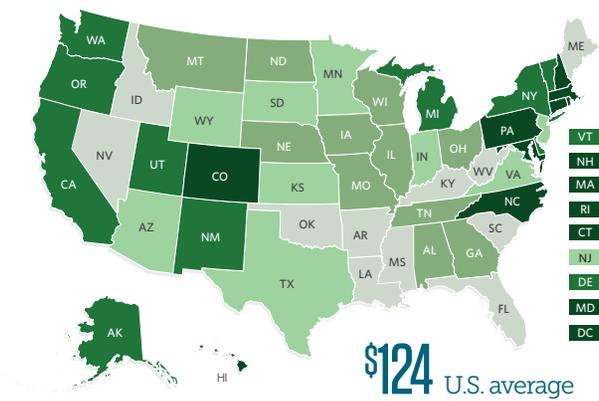
Figure 5

Major Federal Funding Streams Are Distributed Differently Across States

Pell Grant dollars per full-time equivalent undergraduate student, by state, federal fiscal year 2013



Federal research grant spending per capita, by state, federal fiscal year 2013



Total federal higher education funding varies widely across states, and the major types of funding have very different geographic distributions. For example, Pell Grant funding, which is distributed based on a calculation of students' financial need, ranged from \$1,177 in North Dakota per FTE undergraduate to \$3,401 in Arizona, compared with a national average of \$2,078.⁹ High Pell Grant states are concentrated in the Southeast.

Similarly, per-capita federal research funding ranged from \$37 in Maine to \$476 in the District of Columbia, compared with a national average of \$124. States with high levels of research support are concentrated in the Northeast. See Appendix A, Figure 2 for more information about federal funding categories.

Note: Data are based on location of higher education institution and include funding that flows to public, nonprofit, and for-profit institutions and their students.

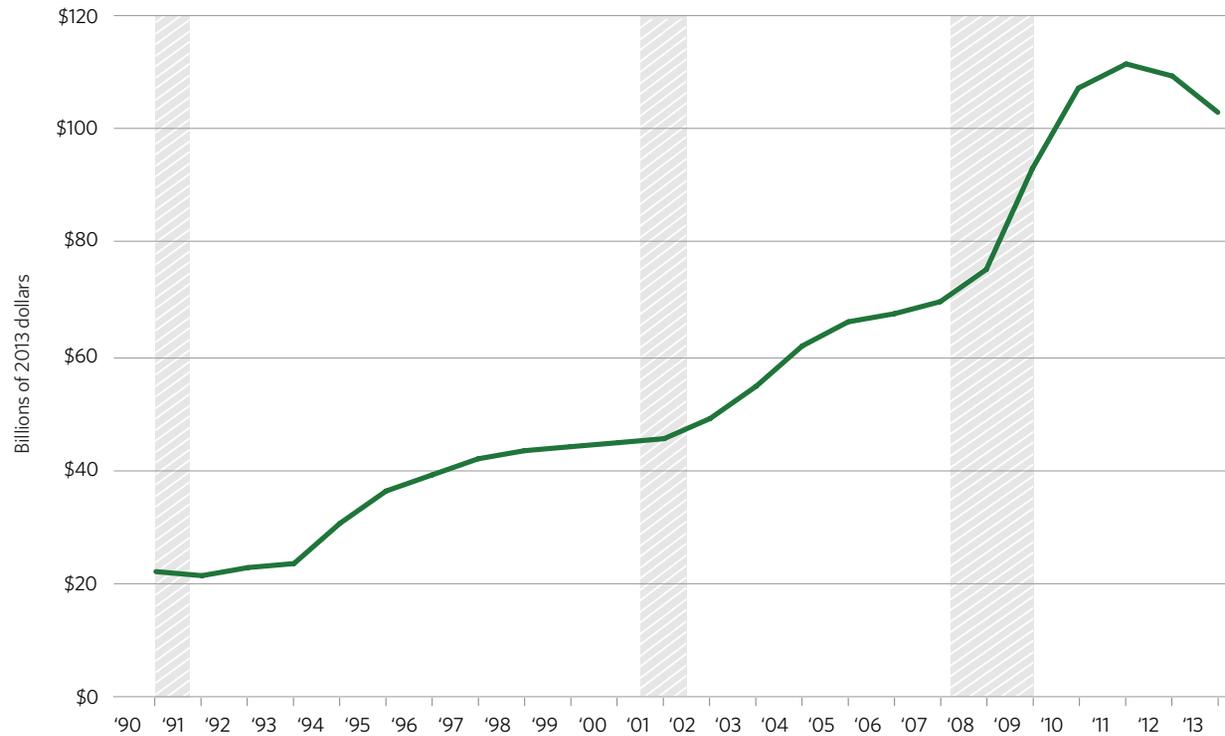
Sources: Pew's analysis of data from the U.S. Department of Education, *State Funding History Tables* (Feb. 2015); U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015); National Science Foundation, *Higher Education Research and Development Survey Data Tables* (Feb. 2014); and U.S. Census Bureau, *Annual Population Estimates* (Dec. 2014)

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Figure 6

Federally Sponsored Lending Grew Sharply in Recent Years

Trend in federal loan issuances, academic years 1990-2013, adjusted for inflation



Note: Includes loans that flow to students attending public, nonprofit, and for-profit higher education institutions. “Sponsored” includes those loans issued directly to the borrower or guaranteed by the federal government. See Appendix B for more details.

Sources: Pew’s analysis of data from the College Board, *Trends in Student Aid* (2014), based on original data from the U.S. Department of Education, Office of Postsecondary Education, National Student Loan Data System

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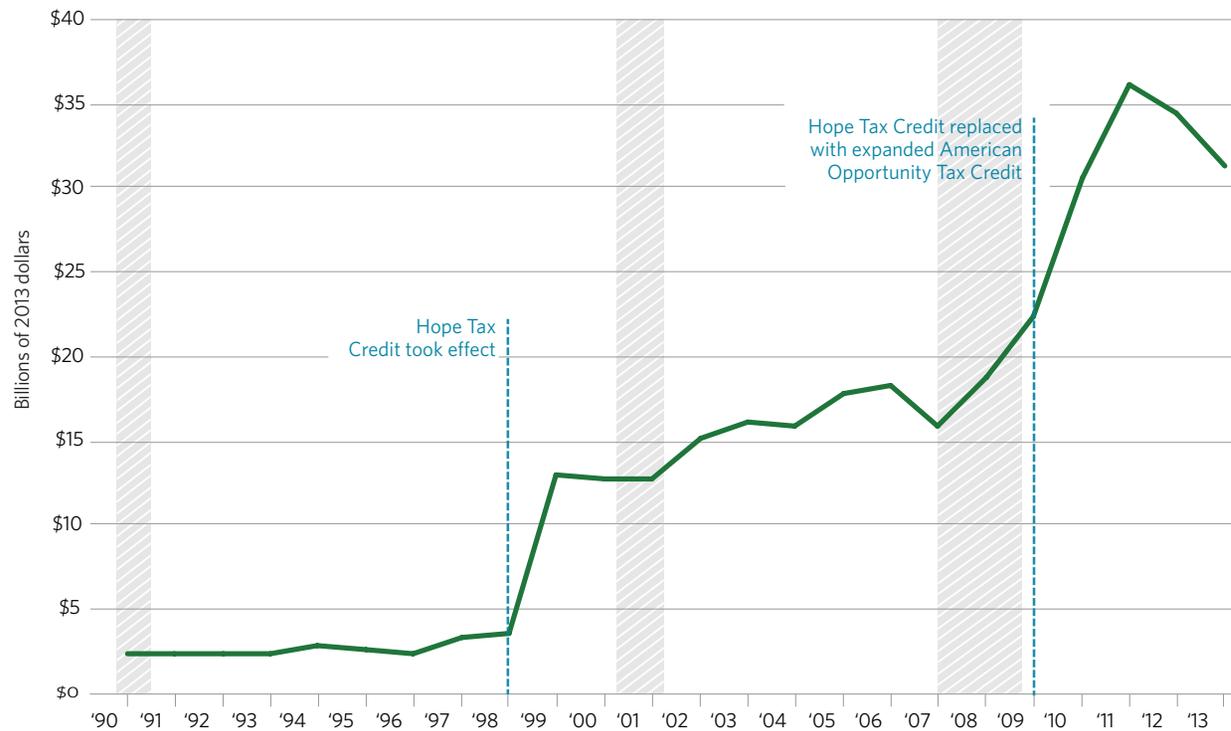
The federal government is the nation’s largest student lender; it issued \$103 billion in loans in 2013. States, by contrast, provided only \$840 million in loans that year, less than 1 percent of the federal amount.

Although they must be paid back with interest, federal loans allow students to borrow at lower rates than are available in the private market.¹⁰ Federal loans grew 376 percent between 1990 and 2013 in real terms, compared with enrollment growth of 60 percent.¹¹ These figures represent the volume, rather than the cost, of those loans.

Figure 7

Federal Higher Education Tax Expenditures Expanded Substantially in the Late 1990s and in the Years Surrounding the Recession

Trend in value of federal tax expenditures for higher education, federal fiscal years 1990-2013, adjusted for inflation



Note: Includes tax expenditures that flow to students attending public, nonprofit, and for-profit higher education institutions. See Appendix B for more details.

Sources: Pew's analysis of data from the U.S. Department of the Treasury as presented in U.S. Office of Management and Budget, *Analytical Perspectives: Budget of the United States Government* (FY1992-2015)

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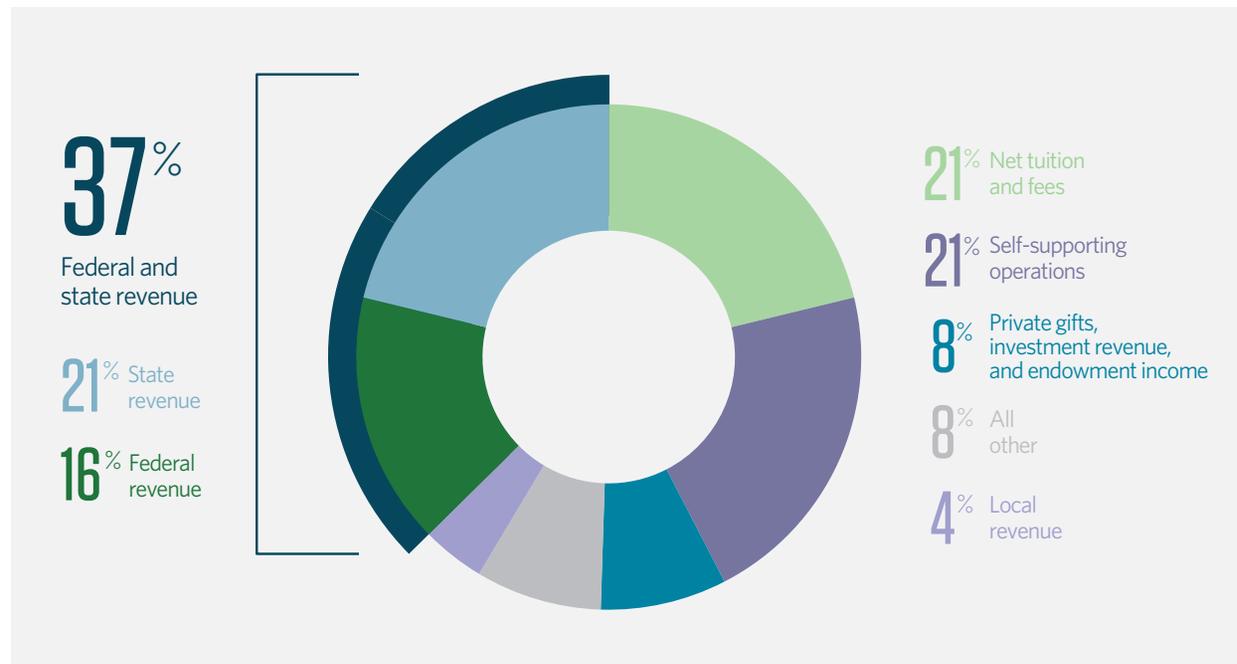
The federal government also supports higher education through the tax code. In 2013, it provided \$31 billion in tax credits, deductions, exemptions, and exclusions to offset costs, essentially equal to the \$31 billion it spent for Pell Grants. Because these expenditures allow taxpayers to reduce their income taxes, they reduce federal revenue and are similar to direct government spending.

The value of federal tax expenditures for higher education is \$29 billion larger than it was in 1990 in real terms. Much of the growth coincided with the creation of the American Opportunity Tax Credit (formerly Hope Tax Credit) in 1997 (effective 1998) and its expansion and renaming in 2009.¹² Between 1990 and 2013, the number of FTE students grew by 60 percent.¹³

Figure 8

Federal and State Funding Makes Up a Significant Share of Public College and University Budgets

Composition of public higher education institutional revenue, fiscal year 2013



Public colleges and universities educate 68 percent of the nation's postsecondary students. Ninety-eight percent of state and 73 percent of federal higher education funding flows to these institutions.¹⁴ Revenue from federal and state sources made up 37 percent of total revenue at public colleges and universities in 2013.

Note: Numbers may not add up due to rounding. See Appendix B for additional methodological details.

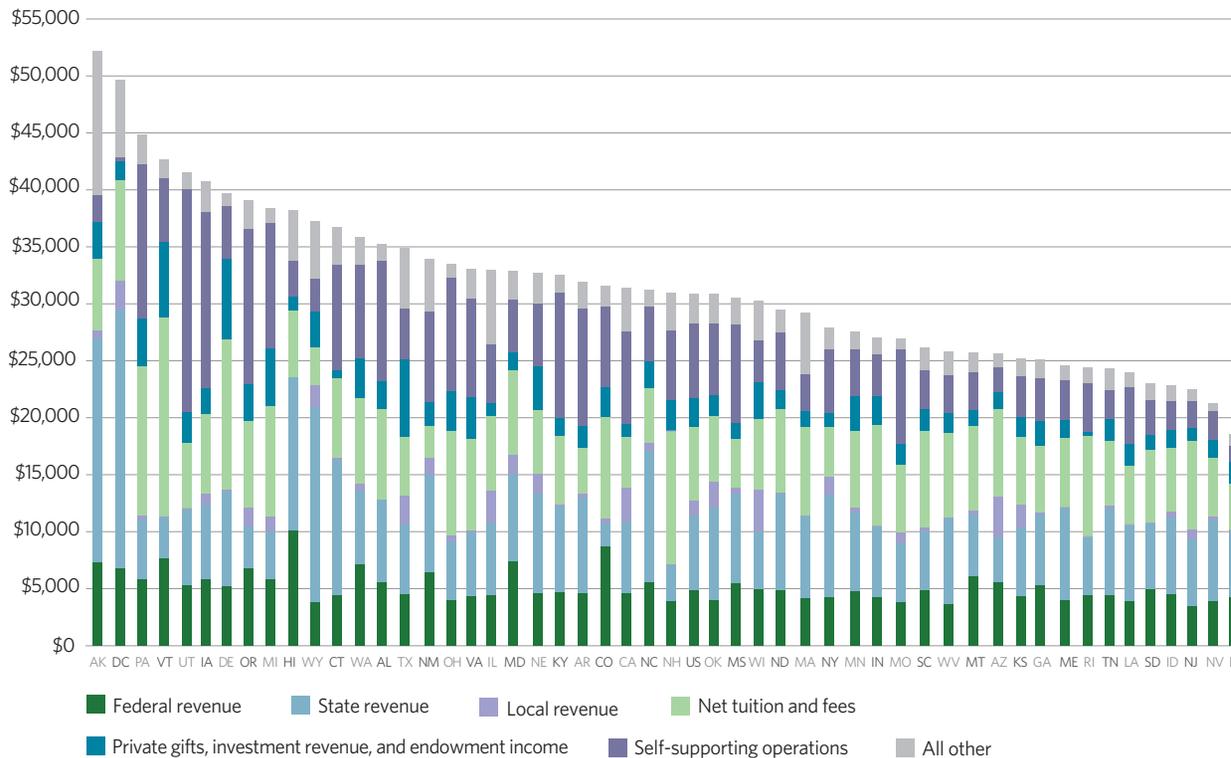
Sources: Pew's analysis of data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015)

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Figure 9

Funding Sources for Public Higher Education Institutions Vary Widely Across States

Composition of revenue per full-time equivalent student, by state, fiscal year 2013



The total amount and mix of revenue used for higher education vary across states. Per-FTE-student revenue flowing to public institutions from federal sources ranges from \$3,465 in New Jersey to \$10,084 in Hawaii, and from state sources spans between \$3,160 in New Hampshire and \$19,575 in Alaska.¹⁵ Other elements, such as the amount of revenue from tuition, also differ.

Federal funding variation stems from differences in students' financial needs and in the types of research conducted in each state, among other factors.

The range in state funding is due, in part, to policy choices regarding higher education. For example, North Carolina's and Wyoming's constitutions stipulate that public institutions should be as close to free as possible, and schools in both states receive above-average state revenue and below-average net tuition revenue.¹⁶

Notes: Because of differing accounting standards, federal revenue in **Pennsylvania** and **Delaware** is understated. **Colorado's** net tuition and fees are overstated and its state revenue is understated due to the way the data is captured in the source.

Sources: Pew's analysis of data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015)

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Appendix A: Extended commentary

Figure 2

Federal funding in 2013

Federal spending has two main goals: financial support for individual students and funding of specific research projects. It also includes a very small amount of general operating support for some institutions.

- **Pell Grants and other financial aid grants.** Roughly \$31.3 billion went to support Pell Grants, which provide monetary awards that do not need to be repaid, on the basis of financial need, mostly to students from low-income families.¹⁷ An additional \$1.6 billion supported other mainly need-based financial aid grants.
- **Research grants.** A total of \$24.6 billion in the form of grants supported specific research projects at higher education institutions. The federal government is the largest funder of such research and development in the United States.¹⁸
- **Veterans' educational benefits.** At \$12.2 billion, the third-largest category of federal higher education spending provided financial support to eligible veterans largely to cover the costs of pursuing a degree or job-training courses.¹⁹
- **General-purpose appropriations.** A total of \$3.8 billion paid for operating expenses at selected schools such as military academies, historically black colleges and universities, land grant institutions, and a few other specialized institutions.²⁰
- **Other federal grant programs.** An additional \$2.2 billion in grants supported a range of assistance initiatives. These programs include a number that provide aid to predominantly minority-serving institutions and TRIO, which helps disadvantaged students prepare for and succeed in college.²¹

State funding in 2013

States provide most of their higher education funding in the form of general support for institutions, with smaller amounts appropriated for research and financial aid.

- **General-purpose appropriations.** A total of \$53 billion paid for general operating expenses of public colleges and universities.
- **Research, agricultural, and medical education appropriations.** States spent \$10.1 billion for the operation and

administrative support of research facilities, agricultural experiment stations, cooperative extension services, health care public services, and medical colleges and universities.

- **Financial aid grants.** An additional \$9.6 billion went to support financial aid programs, consisting mostly of grants that do not need to be repaid.²² Like the federal government, most states provide financial aid based on financial need, but many also offer assistance on the basis of academic merit, or some combination of both.²³

Figure 3

Several factors contributed to the dramatic rise in Pell Grant funding from 2008 to 2010, including an increase in award amounts and expanded eligibility for the program owing to legislative changes, shifting financial realities for many families that resulted in more students qualifying for need-based grants, and a greater number of students attending higher education institutions.²⁴ This upward trend has reversed somewhat, with spending falling by about 12 percent since 2010. The decline is due in part to cuts initiated in 2011 that eliminated a short-lived program allowing students to receive grants year-round rather than for just two semesters, reduced from 18 to 12 the number of full-time semesters for which a student could receive Pell Grants, and made other changes.²⁵

Federal spending on veterans' educational benefits also rose substantially during this period, growing by 225 percent in real terms, or from \$3.7 billion to \$12.2 billion from 2008 to 2013. New spending that largely drove this increase was authorized under the Post-9/11 Veterans Educational Assistance Act of 2008, which expanded eligibility for the program and provided enhanced benefits to veterans who served in the military after September 11, 2001.²⁶

Federal research funding spiked after 2008 as a result of a boost from the American Recovery and Reinvestment Act. But that funding was temporary and was largely gone by 2011, and spending has now fallen back to roughly pre-recession levels.²⁷

Faced with diminished revenue in the wake of the recession, and the need to balance their budgets, many states reduced higher education spending. Most affected were state appropriations for public institutions, which peaked at \$67.2 billion in 2008 and then fell by \$14.1 billion, or 21 percent in real terms, from 2008 to 2013. State appropriations for research, agricultural extension, and medical education also dropped during this time, falling by \$2.1 billion, or 17 percent. State financial aid grants grew by \$798 million, or 9 percent, over that five-year period after adjusting for inflation. (See Extended Commentary, Figure 2 for more information on federal and state funding categories.)

Appendix B: Supplemental figure notes

Figure 1

Major federal higher education programs referred to in the top graphic include Pell Grants and other federal financial aid grants, research grants to institutions, veterans' educational benefits, federal institutional appropriations, and other federal grant programs. Federal higher education spending excludes the cost of student loan programs, capital expenditures, and higher education-related tax expenditures. For federal higher education programs that require state or institutional matching funds, the data reflect only the federal share. These data may not account for all federal spending for higher education-related programs because no central accounting system captures such expenditures. Federal appropriations data reflect funding received by higher education institutions during the fiscal year ending before October 1, 2013, and include spending that flows to public, nonprofit, and for-profit higher education institutions and their students. In the bottom graphic, "All other" includes such items as the Children's Health Insurance Program, institutional and community care for the mentally ill and developmentally disabled, employer contributions to pensions and health benefits, environmental projects, and parks and recreation. The data in the bottom graphic include spending that flows to public, nonprofit, and for-profit higher education institutions and their students. All 50 states are included; the District of Columbia is not.

Figure 2

"Other federal financial aid grants" include Federal Work-Study, Federal Supplemental Educational Opportunity Grants, and Iraq and Afghanistan Service Grants. "Other federal grant programs" include the TRIO programs, College Access Challenge Grants (CACG), Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), Graduate Assistance in Areas of National Need, Child Care Access Means Parents in School, and other institutional aid programs. For federal programs that require state or institutional matching funds, the data reflect only the federal share. Under CACG and GEAR UP, the U.S. Department of Education may award grants to states to support early outreach and services for low-income students. States, in turn, may award these funds as need-based financial aid grants. Owing to data limitations, however, this figure does not exclude funds used in this manner. Therefore, an unknown portion of the \$133 million in CACG funds and \$290 million in GEAR UP funds may also be included in state financial aid grants. Data have been adjusted to conform to the academic year—the period including July 1, 2012, through June 30, 2013. Federal appropriations data reflect funding received by institutions during the fiscal year ending before October 1, 2013. To the extent possible,

actual expenditures (rather than amounts committed) are used, with the exception of federal research grants for institutions. These data include spending that flows to public, nonprofit, and for-profit institutions and their students. In the case of state general-purpose appropriations, data also include spending that flows to statewide governing boards.

Figure 3

Data are adjusted to conform to the academic year (July-June), adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index, and presented in constant academic year 2013 dollars. To the extent possible, actual expenditures (rather than amounts committed) are used, with the exception of federal research grants for institutions. These data include spending that flows to public, nonprofit, and for-profit higher education institutions and their students, as well as entities such as central governing boards. State spending in this chart includes federal funding from the State Fiscal Stabilization Fund of the American Recovery and Reinvestment Act, but it is not clear how stabilization fund spending breaks out across state spending categories.

Figure 4

To compare data from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) over time, Pew used data from the Delta Cost Project, which has been adjusted for survey reporting differences over time to allow for multiple-year comparisons. The latest year for which data are available is 2012. Revenue in this chart reflects federal and state government funding received by public, nonprofit, and for-profit institutions. This includes funding categories such as financial aid grants, research grants, and general-purpose appropriations. "State revenue" does not include public institutions' revenue from tuition and fees or operations such as residence halls or college stores. Federal and state revenue may be understated by an unknown amount because it is unclear how institutions classify some federal and state financial aid grants, including Federal Supplemental Educational Opportunity Grants, Federal Work-Study, and Iraq and Afghanistan Service Grants, when reporting to IPEDS. The data have been adjusted so that Pell Grants are included under federal revenue for all public, nonprofit, and for-profit institutions. Owing to data limitations, federal funding provided to states through the State Fiscal Stabilization Fund of the American Recovery and Reinvestment Act is not included in this chart, and local government appropriations, grants, and contracts provided to for-profit institutions are included within state revenue. "Fiscal year" in the Delta Cost Project's data refers to an institutional fiscal year. Each survey year, IPEDS directs institutions to report funding received during their most recent fiscal year ending before October 1. Data are adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index and

presented in constant federal fiscal year 2012 dollars (the most recent data available).

Figure 6

This chart represents the volume of student loans sponsored—that is, issued directly to the borrower or guaranteed—by the federal government and includes the Direct Loan, Perkins Loan, and various smaller historical loan programs. It is not meant to assess the cost to the federal government of sponsoring those loans. Data are adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index and presented in constant 2013 dollars. These data include loans that flow to students at public, nonprofit, and for-profit higher education institutions.

Figure 7

Higher education tax expenditures in this analysis mirror those in the Congressional Research Service report *Higher Education Tax Benefits: Brief Overview and Budgetary Effects* (March 2014). They include the exclusion of scholarship and fellowship income (normal tax method); the Hope, Lifetime Learning, and American Opportunity tax credits (including the refundable portion where applicable); Education Individual Retirement Accounts; deductions for student-loan interest and higher education expenses; qualified tuition programs; exclusion of interest on savings bonds redeemed to finance educational expenses; parental personal exemption for students age 19 or older; exclusion of employer-provided educational assistance; and discharge of student loan indebtedness. Data include tax expenditures that benefit students attending public, nonprofit, and for-profit higher education institutions. Annual tax expenditure values are drawn from the most recent U.S. Treasury tables that include the referenced year. Data are adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index and presented in constant 2013 dollars.

Figure 8

Revenue in this chart represents monies received by public higher education institutions. Public institutions that report using standards of the Federal Accounting Standards Board—about 1 percent of all public higher education institutions—may not include Pell Grants under federal revenue. Federal and state revenue may be understated by an unknown amount because it is unclear how institutions classify some federal and state financial aid grants, including Federal Supplemental Educational Opportunity Grants, Federal Work-Study, and Iraq and Afghanistan Service Grants, when reporting to the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS). "Fiscal year" in the IPEDS data refers to an institutional fiscal year. These data reflect funding

received by public higher education institutions during their most recent fiscal year ending before October 1, 2013. “Net tuition and fees” include all tuition and educational fees charged to students minus discounts and allowances, defined as the portion of all financial aid grants applied to tuition and fees. Federal, state, and local revenue categories include legislative appropriations and agency grants and contracts, such as research or financial aid grants. “Self-supporting operations” include revenue from the operation of campus services (e.g., residence halls, intercollegiate athletics, and college stores), hospitals, and independent operations. “Private gifts, investment revenue, and endowment income” include revenue received from private and affiliated organizations; realized and unrealized gains and losses on investment returns, dividends, and rental or royalty income; and endowment income, including restricted and unrestricted funds and funds held in trust by others. “All other” includes capital appropriations, grants, gifts, and other miscellaneous revenue.

Figure 9

Revenue in this chart represents monies received by public higher education institutions. Federal revenue in **Pennsylvania** and **Delaware** is understated because 30 percent and 22 percent, respectively, of all Pell Grant funding in those states is reported using accounting standards of the Financial Accounting Standards Board and therefore is not included under federal revenue. Instead, it is included under other revenue categories, but the precise amounts are unknown. In other states, the share of Pell Grants not accounted for under federal revenue does not exceed 0.2 percent of overall Pell Grants received and does not affect the total institutional revenue received by each state. Net tuition and fees are overstated and state revenue is understated by unknown amounts in **Colorado**, because the U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS) captures the state’s general-purpose appropriations as net tuition and fees instead of state revenue.

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the operation of campus services (e.g., residence halls, intercollegiate athletics, and college stores), hospitals, and independent operations. “Private gifts, investment revenue, and endowment income” include revenue received from private and affiliated organizations; realized and unrealized gains and losses on investment returns, dividends, and rental or royalty income; and endowment income, including restricted and unrestricted funds and funds held in trust by others. “All other” includes capital appropriations, grants, gifts, and other miscellaneous revenue.

Endnotes

- 1 Pew’s analysis of data from the Delta Cost Project Database (May 2015), based on original data from U.S. Department of Education, National Center for Education Statistics’ Integrated Postsecondary Education Data System. This analysis reflects federal and state revenue reported by higher education institutions, including funding from categories such as financial aid grants, research grants, and general-purpose appropriations and excluding loans and tax expenditures, over time. Available data go back to 1987.
- 2 This data point reflects federal and state revenue reported by higher education institutions, including spending categories such as financial aid grants, research grants, and general-purpose appropriations and excluding loans and tax expenditures, over time. This chartbook uses the terms “postsecondary” and “higher education” interchangeably. These figures come from Pew’s analysis of data from the Delta Cost Project Database (May 2015), based on original data from U.S. Department of Education, National Center for Education Statistics’ Integrated Postsecondary Education Data System.
- 3 U.S. Office of Management and Budget, “Budget of the U.S. Government” (February 2015), <http://www.gpo.gov/fdsys/pkg/BUDGET-2016-BUD/pdf/BUDGET-2016-BUD.pdf>; and U.S. House of Representatives, Committee on the Budget, “A Balanced Budget for a Stronger America” (March 2015), <http://budget.house.gov/uploadedfiles/fy16budget.pdf>.
- 4 State Higher Education Executive Officers Association, “State Higher Education Finance: FY 2014” (April 2015), <http://www.sheeo.org/sites/default/files/project-files/SHEF%20FY%202014-20150410.pdf>; Erik Kelderman, “State Spending on Higher Education Inches Up, but Fiscal Pitfalls Remain,” *The Chronicle of Higher Education*, Jan. 19, 2015, <http://chronicle.com/article/State-Spending-on-Higher/151251/>; Douglas Belkin, “State Funding for Colleges Rebounds,” *The Wall Street Journal*, Jan. 20, 2014, <http://www.wsj.com/articles/SB10001424052702304757004579333001917794012>; Kevin Kiley, “Budgets Half Empty, Glass Half Full,” *Inside Higher Ed*, July 1, 2011, https://www.insidehighered.com/news/2011/07/01/state_budgets_for_public_colleges_could_have_been_worse; and Eric Kelderman, “Senators in Both Parties Agree: States Must Do More for Higher Education,” *The Chronicle of Higher Education*, July 25, 2014, <http://chronicle.com/article/Senators-in-Both-Parties/147911>.
- 5 According to Mindy Levit, “The Budget Control Act of 2011: Legislative Changes to the Law and Their Budgetary Effects,” Congressional Research Service (March 25, 2015), the Budget Control Act of 2011, as amended, established statutory limits on federal discretionary spending from federal fiscal 2012 through 2021. Discretionary spending is provided and controlled through appropriations acts and accounts for roughly one-third of all federal spending. It includes federal activities such as national security and funding of federal agencies but not mandatory spending programs such as the Social Security and Medicare programs. The Pew Charitable Trusts, “Since Recession, Tax Revenue Lags in 30 States” (March 23, 2015), <http://www.pewtrusts.org/en/research-and-analysis/analysis/2015/03/23/since-recession-tax-revenue-lags-in-30-states>.
- 6 Pew’s analysis of data from U.S. Department of Education, *Education Department Budget History Table: FY1980-FY2015 President’s Budget* (Feb. 18, 2015), <http://www2.ed.gov/about/overview/budget/history/index.html>. This study distinguishes between direct spending—

support for higher education that does not need to be repaid—and loans that must be paid back. Although loans and the Teacher Education Assistance for College and Higher Education (TEACH) grant program are included within the federal budget, the methods used to calculate their fiscal impact are complex and subject to debate. This analysis does not attempt to determine the cost of loans and TEACH grants. Loans are featured in a separate discussion on Page 7 and are quantified using total federally sponsored—that is, made directly to the borrower or guaranteed—issuances rather than net cost to the federal government. Note that some major federal programs related to higher education, such as federal research funding and veterans' educational benefits, lie outside of the Department of Education's budget as described by Alexandra Hegji in "The Higher Education Act (HEA): A Primer," Congressional Research Service (Jan. 16, 2015).

- 7 These figures reflect federal, state, and local funding levels in academic year 2013 and exclude capital appropriations and the cost of student aid administration. In 2013, for example, the cost of federal student aid administration was \$1.3 billion, and the cost of state capital appropriations was \$570 million. U.S. Department of Education, FY 2015 Budget Request (March 2014), <http://www2.ed.gov/about/overview/budget/tables.html>; and National Association of State Budget Officers, State Expenditure Report (Nov. 2014), <http://www.nasbo.org/publications-data/state-expenditure-report/archives>.
- 8 Pew's analysis of FY 2013 data from U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015), <http://nces.ed.gov/ipeds/datacenter/>. "Full-time equivalent" is a measure used by the U.S. Department of Education to account for students who are enrolled either full time or part time as defined by each institution and make enrollment numbers comparable across institutions. The department's definition can be found here: <http://nces.ed.gov/ipeds/glossary/index.asp?id=854>.
- 9 Arizona had the highest Pell Grant funding per undergraduate FTE student, at \$3,401, largely because of the University of Phoenix, a for-profit institution that primarily delivered its programs online. The university accounted for 45 percent of all Pell Grant funding in the state. Similarly, Ashford University, a for-profit institution located in Iowa that also primarily delivered its programs online, accounted for 42 percent of all Pell Grant funding in that state. Pew's analysis of FY 2013 data from U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015), <http://nces.ed.gov/ipeds/datacenter>.
- 10 See, for example, U.S. Department of Education, Office of Federal Student Aid, "Federal Student Loans for College or Career School Are an Investment in Your Future," <https://studentaid.ed.gov/types/loans>.
- 11 At the time of publication, Delta Cost data were available only through 2012, and IPEDS does not provide a fall FTE count going back to 1990. As a result, this value takes the Delta Cost fall FTE count for 1990 and compares it with the IPEDS count for 2013. Starting in July 2010, the vast majority of federal loans were sponsored by the William D. Ford Federal Direct Loan Program, providing loans directly to students and their families. Before that time, the federal government also guaranteed loans issued by other lenders, such as private banks. For more details, see David P. Smole, "Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers," Congressional Research Service (Jan. 21, 2015).
- 12 Internal Revenue Service, "Tax Benefits for Education: Information Center," last modified Jan. 15, 2015, <http://www.irs.gov/uac/Tax-Benefits-for-Education:-Information-Center>.
- 13 At the time of publication, Delta Cost data were available only through 2012, and IPEDS does not provide a fall FTE count going back to 1990. As a result, this value takes the Delta Cost fall FTE count for 1990 and compares it with the IPEDS count for 2013.
- 14 Pew's analysis of FY 2013 data from U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System (accessed Jan. 2015), <http://nces.ed.gov/ipeds/datacenter/>.
- 15 In this comparison, Pew's analysis using data from the U.S. Department of Education, National Center for Education Statistics' Integrated

Postsecondary Education Data System found that higher education institutions in Colorado reported the lowest amount of state revenue (\$1,932 per FTE student) among all states. This is a result of Colorado's unique higher education funding system, which causes most state dollars to be reported under tuition and fees in IPEDS. Higher education institutions located in the District of Columbia received the highest amount of what IPEDS classifies as state revenue at \$22,644 per FTE student.

- 16 North Carolina Constitution Article IX § 9 and Wyoming Constitution Article 7 § 16.
- 17 U.S. Department of Education, "Federal Pell Grant Program," last modified April 9, 2014, <http://www2.ed.gov/programs/fpg/index.html>.
- 18 Association of American Universities, "University Research: The Role of Federal Funding" (Jan. 2011), <http://www.aau.edu/WorkArea/DownloadAsset.aspx?id=11588>.
- 19 David P. Smole and Shannon S. Loane, "A Brief History of Veterans' Education Benefits and Their Value," Congressional Research Service (June 25, 2008), <https://www.fas.org/sgp/crs/misc/RL34549.pdf>; Cassandra Dortch, "Educational Assistance Programs Administered by the U.S. Department of Veterans Affairs," Congressional Research Service (March 15, 2011), http://assets.opencrs.com/rpts/R40723_20110315.pdf; and Cassandra Dortch, "The Post-9/11 Veterans Educational Assistance Improvements Act of 2010, as Enacted," Congressional Research Service (Jan. 31, 2011), <https://doyle.house.gov/sites/doyle.house.gov/files/documents/Education%20CRS%20report%20R41620%20post911%20vets%20ed%20act.pdf>.
- 20 Hegji, "The Higher Education Act (HEA)"; and Pew's analysis of U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System.
- 21 Cassandra Dortch, "The TRIO Programs: A Primer," Congressional Research Service (Jan. 10, 2014).
- 22 National Association of State Student Grant and Aid Programs, "44th Annual Survey Report on State-Sponsored Student Financial Aid: 2012-2013 Academic Year," <http://www.nassgap.org/viewrepository.aspx?categoryID=3#>.
- 23 Ibid.
- 24 Congressional Budget Office, "The Federal Pell Grant Program: Recent Growth and Policy Options" (Sept. 2013), http://www.cbo.gov/sites/default/files/44448_PellGrants_9-5-13.pdf; and Cassandra Dortch, "Federal Pell Grant Program of the Higher Education Act: How the Program Works and Recent Legislative Changes," Congressional Research Service (Sept. 29, 2014).
- 25 Dortch, "Federal Pell Grant Program."
- 26 Pew's analysis of U.S. Department of Veterans Affairs, Office of Budget, "Annual Budget Submission" (accessed Nov. 6, 2014), fiscal years 2008-14, <http://www.va.gov/budget/products.asp>; and Cassandra Dortch, "The Post-9/11 Veterans Educational Assistance Act of 2008 (Post-9/11 GI Bill): Primer and Issues," Congressional Research Service (July 28, 2014), <http://www.fas.org/sgp/crs/misc/R42755.pdf>.
- 27 Pew's analysis of data from National Science Foundation, National Center for Science and Engineering Statistics, "Survey of Federal Funds for Research and Development," fiscal years 2007-13. <http://www.nsf.gov/statistics/srvyfedfunds/#tabs-3>.

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