



Two Decades of Change in Federal and State Higher Education Funding

Recent trends across levels of government

The Pew Charitable Trusts

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Overview

States and the federal government have long provided substantial financial support for higher education, but in recent years, their respective levels of contribution have shifted significantly.¹ Historically, states provided a far greater share of assistance to postsecondary institutions and students than the federal government did: In 1990 state per student funding was almost 140 percent more than that of the federal government. However, over the past two decades and particularly since the Great Recession, spending across levels of government converged as state investments declined, particularly in general purpose support for institutions, and federal ones grew, largely driven by increases in the need-based Pell Grant financial aid program. As a result, the gap has narrowed considerably, and state funding per student in 2015 was only 12 percent above federal levels.²

This swing in federal and state funding has altered the level of public support directed to students and institutions and how higher education dollars flow. Although federal and state governments have overlapping policy goals, such as increasing access to postsecondary education and supporting research, they channel their resources into the higher education system in different ways. The federal government mainly provides financial assistance to individual students and specific research projects, while states primarily pay for the general operations of public institutions. Federal and state funding, together, continue to make up a substantial share of public college and university budgets, at 34 percent of public schools' total revenue in 2017.

Given the essential role that government funding plays in higher education access and operations, policymakers across the nation frequently face difficult choices as they seek to balance support for postsecondary students and institutions with other priorities and changing economic conditions. Federal leaders, for example, are debating renewal of the Higher Education Act, the law that governs most federal financial aid, and which was last reauthorized in 2008.³ The outcome of this discussion could affect programs such as the Pell Grant, the largest federal grant for higher education. Meanwhile, even as many states have been restoring higher education funding after years of recession-driven cuts, their overall spending remains below pre-recession levels after adjusting for enrollment and inflation.

Decisions at both levels of government will affect the federal government's and states' ability to achieve shared policy goals, such as greater student access to education and support for research, and will determine whether the funding convergence that has occurred in recent years is temporary or a more lasting reconfiguration. This chartbook illustrates the existing federal-state relationship in higher education funding, how that relationship has evolved over time, and the significant variation in federal and state support across states.

Figure 1

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

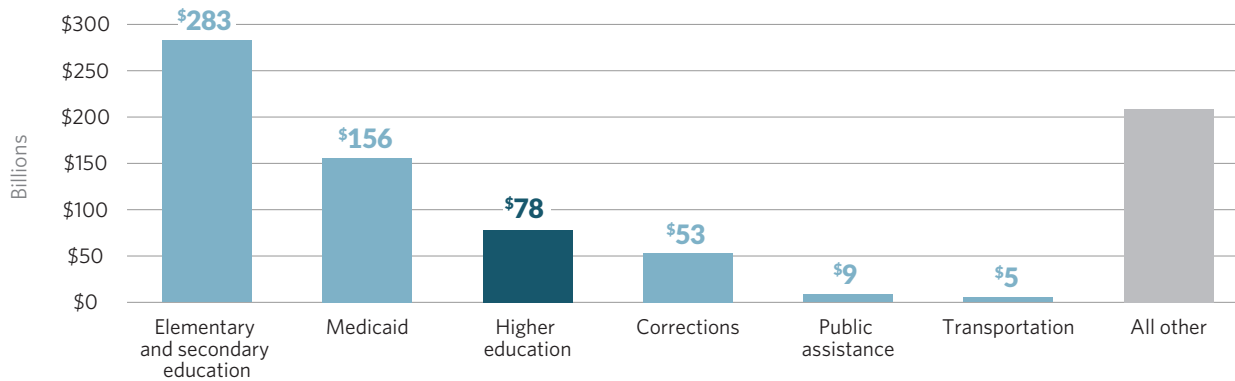
Postsecondary education funding as a share of total federal expenditures (\$3.98 trillion), FY 2017



Although higher education programs account for only about 2 percent of the total federal budget, they make up a large share of federal education investments. For example, just under half of the U.S. Department of Education’s budget is devoted to higher education (excluding loan programs).⁴ Higher education funding also comes from other federal agencies, such as the National Science Foundation and the departments of Veterans Affairs and Health and Human Services.

At the state level, higher education was the third-largest area of general fund spending in 2017 behind K-12 education and Medicaid.

Major categories of state general fund spending, state FY 2017



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 the technical appendix, available on the chartbook webpage, for more details.

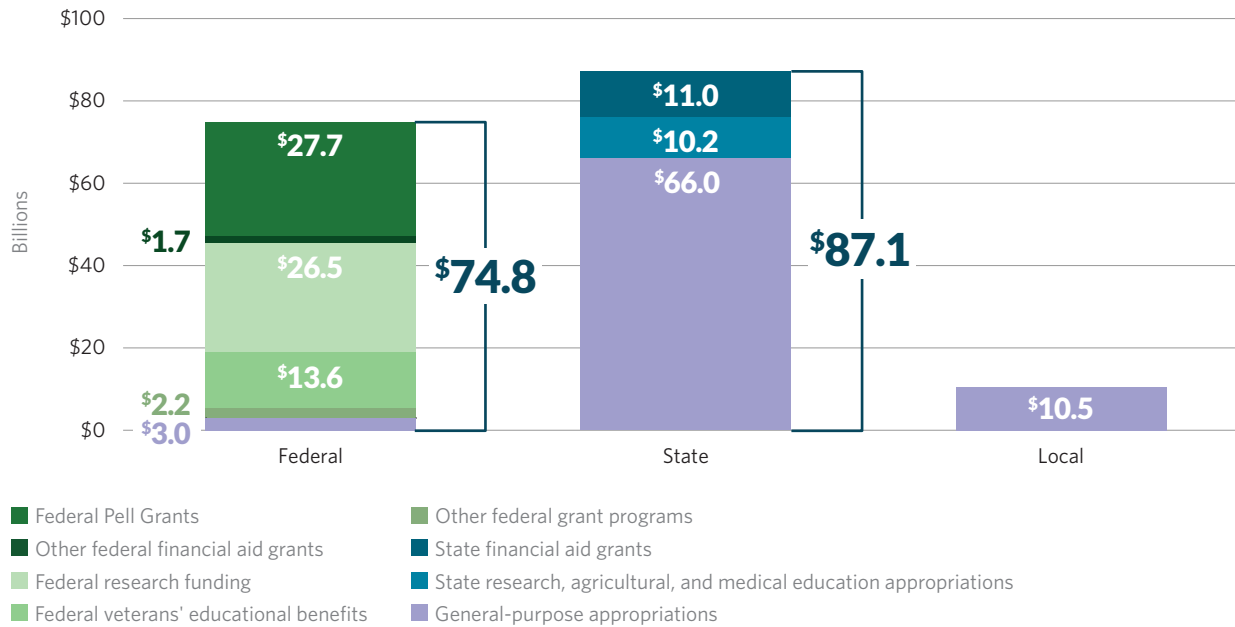
Sources: Pew’s analysis of data from the U.S. Office of Management and Budget, “Historical Tables”; U.S. Department of Education, National Center for Education Statistics’ Integrated Postsecondary Education Data System; U.S. Department of Education, “FY 2017 Budget Request” and “State Funding History Tables”; National Science Foundation, National Center for Science and Engineering Statistics, “Survey of Federal Funds for Research and Development Fiscal Years 2016-17”; U.S. Department of Veterans Affairs, “FY 2017 Budget Submission”; and National Association of State Budget Officers, “2018 State Expenditure Report”

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Figure 2

Federal and State Investments Are Both Sizable, but Differ in Nature

Spending categories by level of government, academic year 2017



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. Federal numbers have been adjusted from federal fiscal years (October to September) to academic years; state data are unadjusted because both state fiscal and academic years run from July to June. See the technical appendix, available on the chartbook webpage, 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; U.S. Department of Education, "FY 2019 Budget Request" and "State Funding History Tables"; Department of Veterans Affairs Budget in Brief Volume III, "Benefits and Burial Programs and Departmental Administration," fiscal year 2019; National Science Foundation, National Center for Science and Engineering Statistics, "Survey of Federal Funds for Research and Development Fiscal Years 2016-17"; State Higher Education Executive Officers Association, "State Higher Education Finance," fiscal year 2018; and National Association of State Student Grant and Aid Programs, "48th Annual Survey Report on State-Sponsored Student Financial Aid: 2016-2017 Academic Year"

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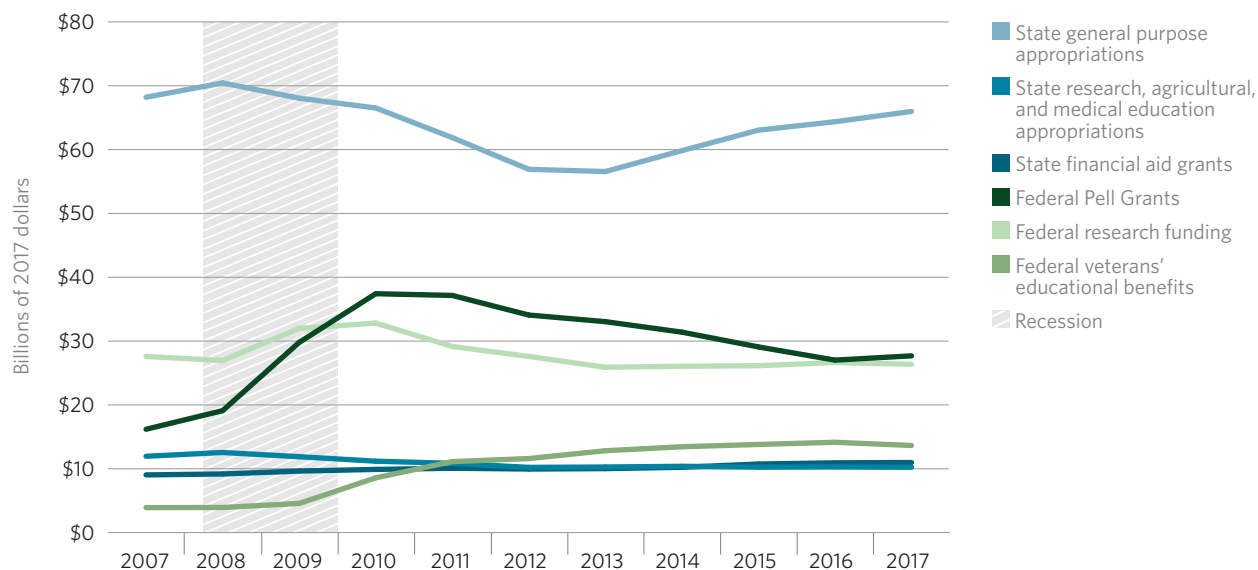
In 2017, federal spending on major higher education programs totaled \$74.8 billion, state investments amounted to \$87.1 billion, and local funding was \$10.5 billion.⁵ These figures exclude student loans and higher education-related tax expenditures, such as deductions and credits taken by students and their families.

Although all levels of government contribute significant resources, they direct those dollars differently. The federal government provides financial assistance mostly to individual students and funds specific research projects, while states typically support the general operations of public institutions, with smaller amounts directed toward research and financial aid. Local funding is mainly spent on the general operating expenses of community colleges. For more information, see the appendix.

Figure 3

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

Trends in major expenditure categories, academic years 2007-17, adjusted for inflation



Note: Data include spending for public, nonprofit, and for-profit higher education institutions and their students, excluding loans and tax expenditures. See the technical appendix, available on the chartbook webpage, for more details.

Sources: Pew's analysis of data from the U.S. Department of Education, "State Funding History Tables," fiscal years 2007-17; National Science Foundation, National Center for Science and Engineering Statistics, survey of federal funds for research and development, fiscal years 2007-17; State Higher Education Executive Officers Association, "State Higher Education Finance," fiscal years 2012-17; National Association of State Student Grant and Aid Programs, annual survey report on state-sponsored student financial aid, academic years 2007-17; U.S. Department of Veterans Affairs, "Annual Budget Submission," fiscal years 2008-19; National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions"

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Funding for major federal higher education programs, particularly Pell Grants and veterans' benefits, grew significantly starting at the onset of the recession, even as state funding fell. These trends reversed somewhat as the economy recovered.

- Pell spending surged by \$18.3 billion (96 percent) between 2008 and 2010 before receding slightly; 2017 Pell expenditures were still \$11.5 billion (71 percent) higher than in 2007, after adjusting for inflation.
- Federal veterans' educational benefits grew by \$9.5 billion (249 percent) in real terms between 2008 and 2017.

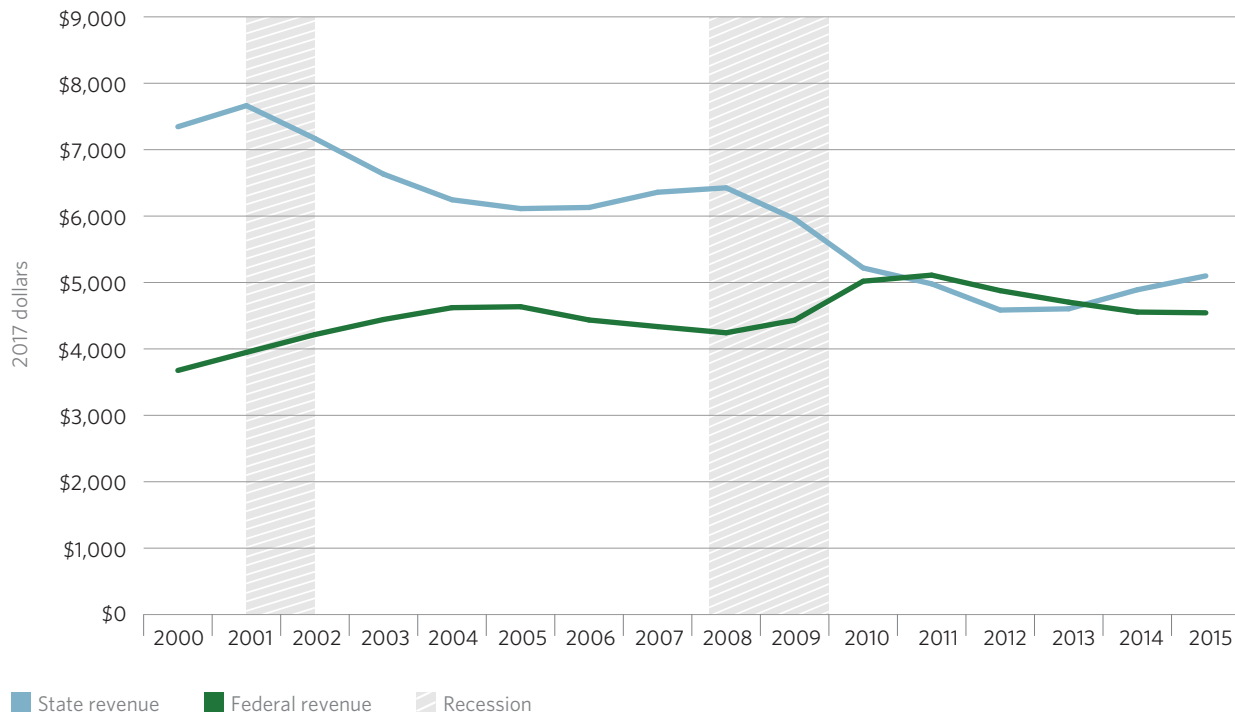
At the state level, general-purpose appropriations had the biggest declines, falling by almost \$14 billion (20 percent) from 2008 to 2013, but have rebounded significantly. Even so, as of 2017 they were still \$2.2 billion (3 percent) below 2007 levels.

These trends are not adjusted for enrollment. Since 2008, the number of full-time equivalent (FTE) students at U.S. institutions grew by 1.4 million (10 percent).⁶ For more information, see the appendix.

Figure 4

Federal and State Higher Education Funding Converged Shortly After the Recession

Revenue per full-time equivalent student flowing to colleges and universities, by level of government, state FY 2000-15, adjusted for inflation



Note: Data include funding for public, nonprofit, and for-profit higher education institutions and their students, excluding loans and tax expenditures. See the technical appendix, available on the chartbook webpage, for more details.

Sources: Pew's analysis of data from the Delta Cost Project Database, based on original data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System; National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions"

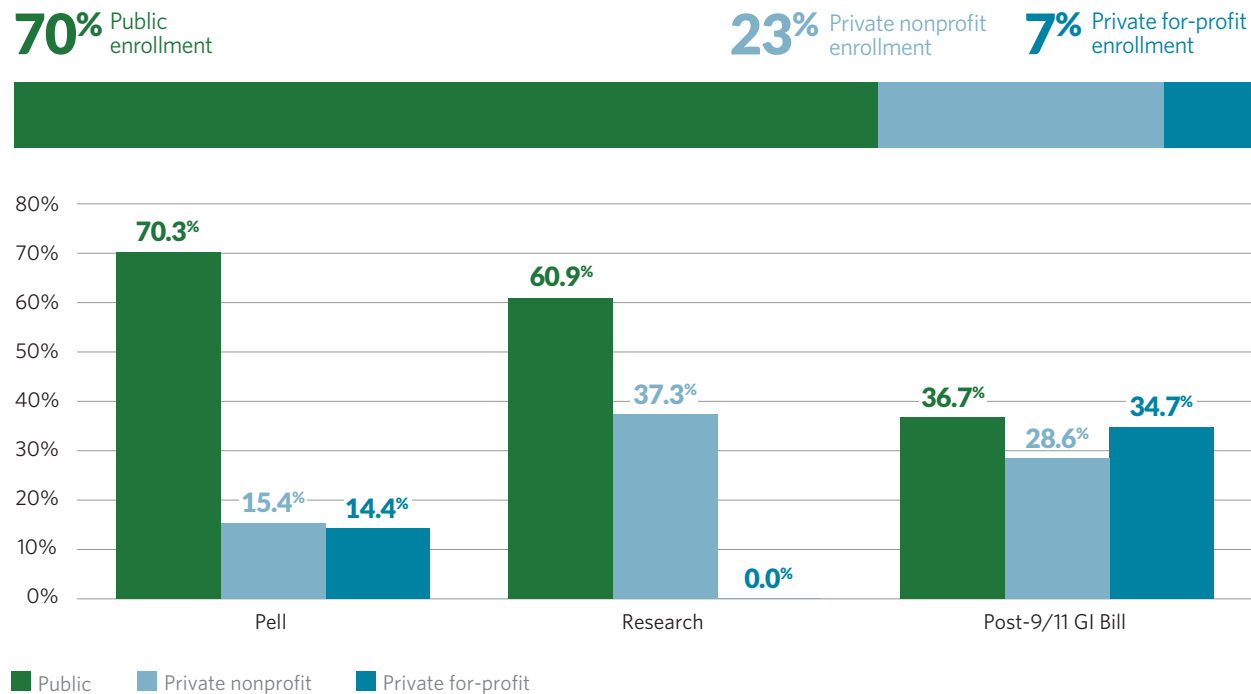
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The relative levels of funding provided by states and the federal government shifted in recent years. From 2000 to 2015 federal spending per FTE student going to public, nonprofit, and for-profit institutions grew by almost 24 percent in real terms, while comparable state expenditures fell by about 31 percent, narrowing the difference between state and federal funding levels from 100 percent to 12 percent over this period. Much of this convergence happened during and directly after the past two economic downturns (shaded in the figure), as state funding fell and federal funding grew. By contrast, recent periods of economic growth have been characterized by state funding increases and federal funding declines.

Figure 5

Most Pell and Research Dollars Go to Public Institutions, While More Veterans' Benefit Funding Flows to Private Ones

Distribution of funds for major federal higher education programs by institution type, academic year 2017



Note: Data are adjusted to academic year. See the technical appendix, available on the chartbook webpage, for more details.

Sources: U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System; U.S. Department of Education, Office of Federal Student Aid, "Title IV Program Volume Reports"; National Science Foundation, "Higher Education Research and Development Survey," fiscal year 2016; U.S. Department of Veterans Affairs, "Post-9/11 GI Bill Data," <http://www.va.gov/transparency/Post-9-11-GI-Bill-Data.xlsx>

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The three major federal funding streams—Pell Grants, research funding, and veterans' benefits—are distributed differently across institution types, which are broken out by "public," "private nonprofit," and "private for-profit."

Pell Grants: More than two-thirds of this funding flows to public institutions, with the remaining third almost evenly split between private nonprofit and for-profit institutions.

Research funding: Like Pell dollars, most research funding goes to public institutions, but the remaining funding flows entirely to private nonprofit schools.

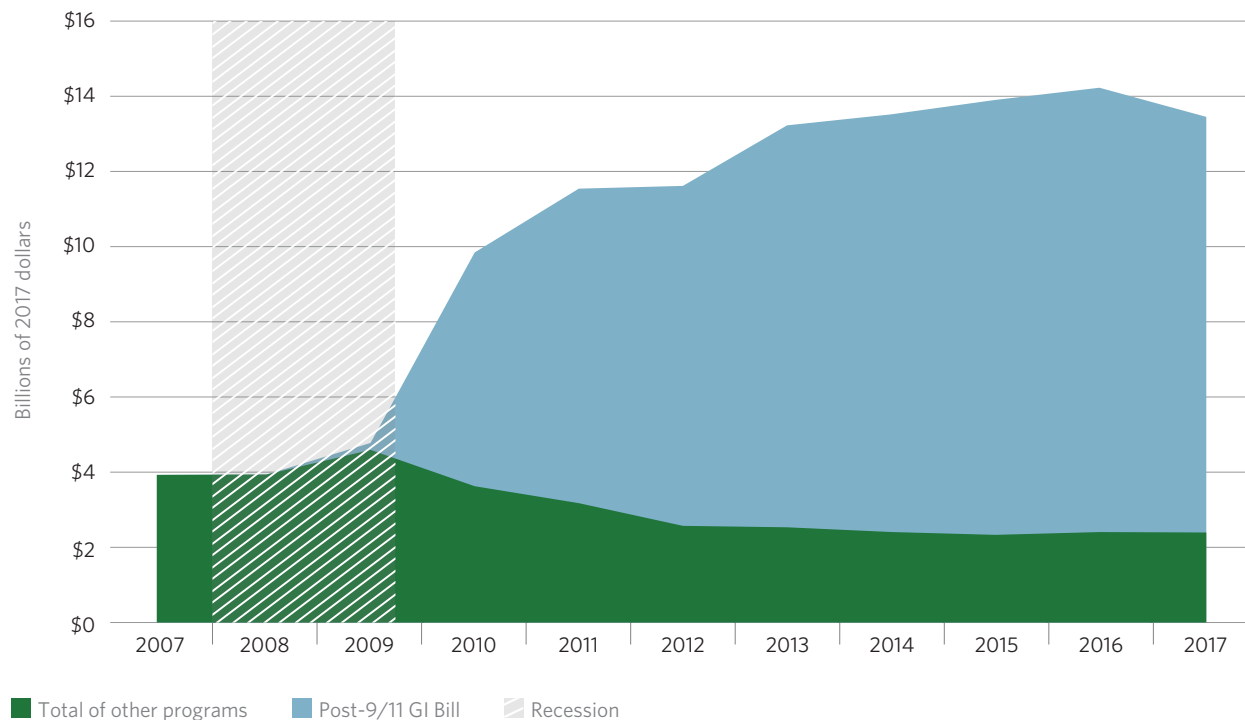
Veterans benefits: Post-9/11 GI Bill benefits go primarily to private nonprofit and for-profit institutions, with about a third of the funds going to public colleges and universities.

To put these numbers in perspective, in 2017, 70 percent of all students attended public institutions, 23 percent attended private nonprofit schools, and 7 percent attended private for-profit colleges and universities.⁷ For more information, see the appendix.

Figure 6

The Post-9/11 GI Bill Has Driven Increases in Veterans' Education Benefits

Federal spending on veterans' higher education programs, FY 2007-17, adjusted for inflation



The federal government has long provided resources to help veterans and their dependents pursue higher education. The 2009 implementation of the Post-9/11 GI Bill significantly increased the amount of support available by providing funding for tuition, housing, and other educational expenses. Beneficiaries are eligible for 36 months of benefits under the program and may use them at various institutions of higher education and vocational training programs. Between 2007 and 2017, federal spending on veterans' higher education benefits grew nearly 250 percent, in inflation-adjusted terms, primarily because of the Post-9/11 GI Bill. Other veterans' education support programs shrank over the past decade.⁸ For more information, see the appendix.

Notes: The "Total of other programs" section includes seven different programs. Data are adjusted for inflation using the U.S. Bureau of Labor Statistics' Consumer Price Index and presented in constant 2017 dollars.

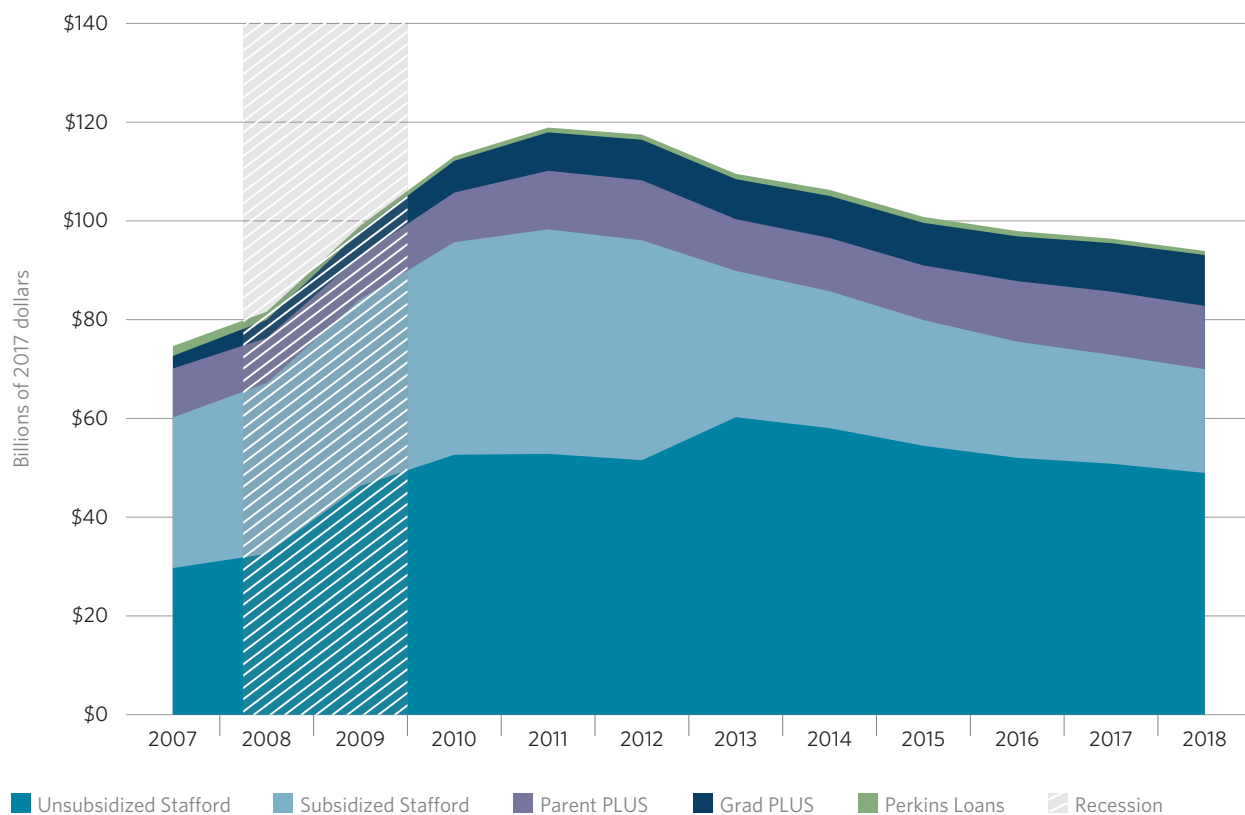
Sources: Department of Veterans Affairs Budget in Brief Volume III, "Benefits and Burial Programs and Departmental Administration," fiscal years 2008-19; National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions"

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Figure 7

Federal Student Borrowing Grew Sharply After the Recession and Has Since Been Declining

Value of loan issuances, academic years 2007-18, adjusted for inflation



Note: Includes loans that flow to students attending public, nonprofit, and for-profit higher education institutions.

Sources: Pew’s analysis of data from the College Board, “Trends in Student Aid 2018,” based on original data from the U.S. Department of Education, National Student Loan Data System; National Bureau of Economic Research, “U.S. Business Cycle Expansions and Contractions”

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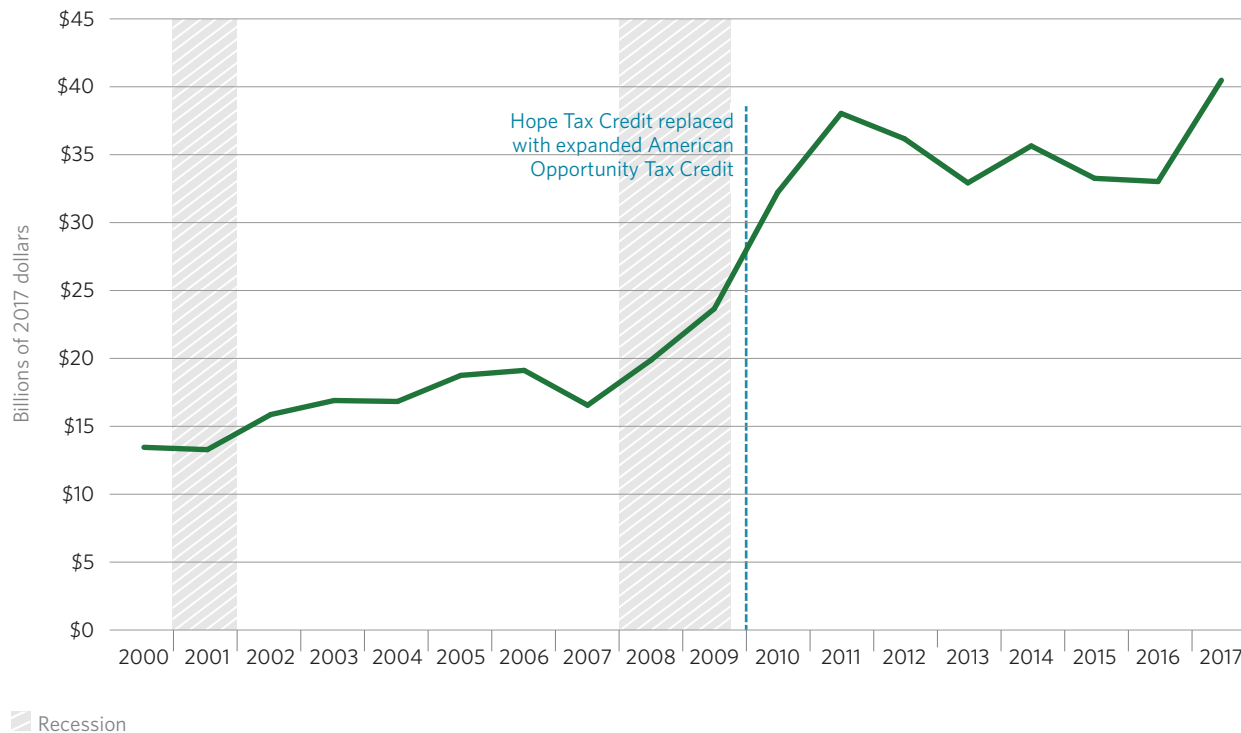
The federal government is the nation’s largest student lender, issuing \$94 billion in loans in 2018. By contrast, states lent \$452 million that year, less than 1 percent of the federal total.⁹ Federal loans rose by 26 percent between 2007 and 2018 in real terms, compared with enrollment growth of about 14 percent between 2007 and 2017.¹⁰ After reaching a 2011 high of \$119 billion in real terms, federal lending steadily declined, though it remains above pre-recession levels.¹¹

Since 2009, most of the growth has been in unsubsidized Stafford loans, which have no financial eligibility requirements but limit the amount students can borrow. The 2006 creation of the grad PLUS program, which lends to graduate students up to the cost of attendance,¹² and increased borrowing in the parent PLUS program, which allows parents to borrow up to the cost of attendance for their undergraduate dependents, also contributed to the recent growth. For more information, see the appendix.

Figure 8

Federal Support for Postsecondary Education Via the Tax Code Expanded Substantially Around the Recession

Value of higher education tax benefits, FY 2000-17, adjusted for inflation



Note: Data include tax expenditures that flow to students attending public, nonprofit, and for-profit higher education institutions. See the technical appendix, available on the chartbook webpage, for more details.

Sources: Pew's analysis of data from the U.S. Department of the Treasury as presented in the Office of Management and Budget, "Analytical Perspectives: Budget of the United States Government," fiscal years 2002-19; National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions"

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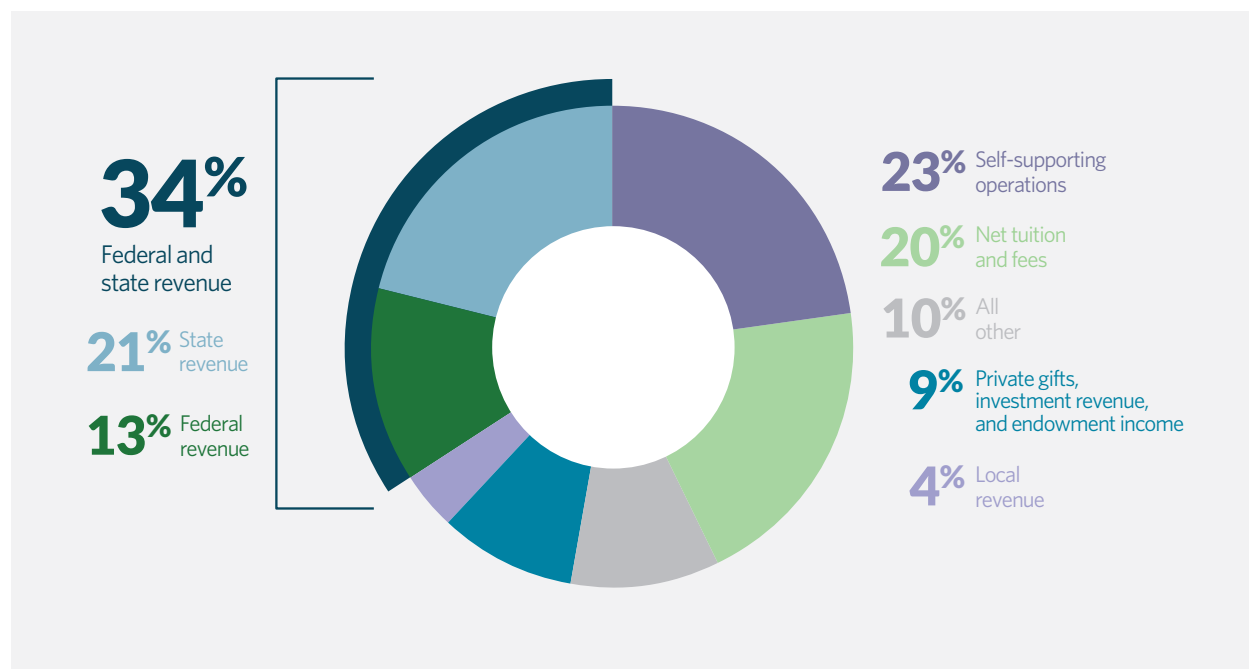
The federal government also supports higher education through the tax code: It provided \$40.5 billion in tax expenditures—credits, deductions, exemptions, and exclusions—to offset costs to students and families in 2017, more than the cost of Pell Grants in that same year. The value of these federal tax expenditures is \$27 billion larger than it was in 2000 in real terms (201 percent), with much of the growth coinciding with the expansion of the American Opportunity Tax Credit (formerly Hope Tax Credit) in 2009.

States also provide tax expenditures for higher education. In 2017, Pew found that every state that levied a personal income tax in 2014 provided tax benefits related to higher education, although few states tracked or comprehensively estimated those costs.¹³

Figure 9

Federal and State Funding Account for Significant Shares of Public College and University Budgets

Total revenue for public institutions, by source, FY 2017



Public colleges and universities educate 70 percent of the nation's postsecondary students.¹⁴ Ninety-eight percent of state and 71 percent of federal higher education funding flows to these institutions.¹⁵ Revenue from federal and state sources made up 34 percent of total revenue at public colleges and universities in 2017, with other funding coming from tuition and fees, private gifts, self-supporting operations, and other sources.

Note: Data include operating and nonoperating revenue received by public higher education institutions. Just under 1 percent of all such institutions report their funding using the standards of the Financial Accounting Standards Board and may not include Pell Grants under federal revenue. For more information, see the technical appendix, available on the chartbook webpage.

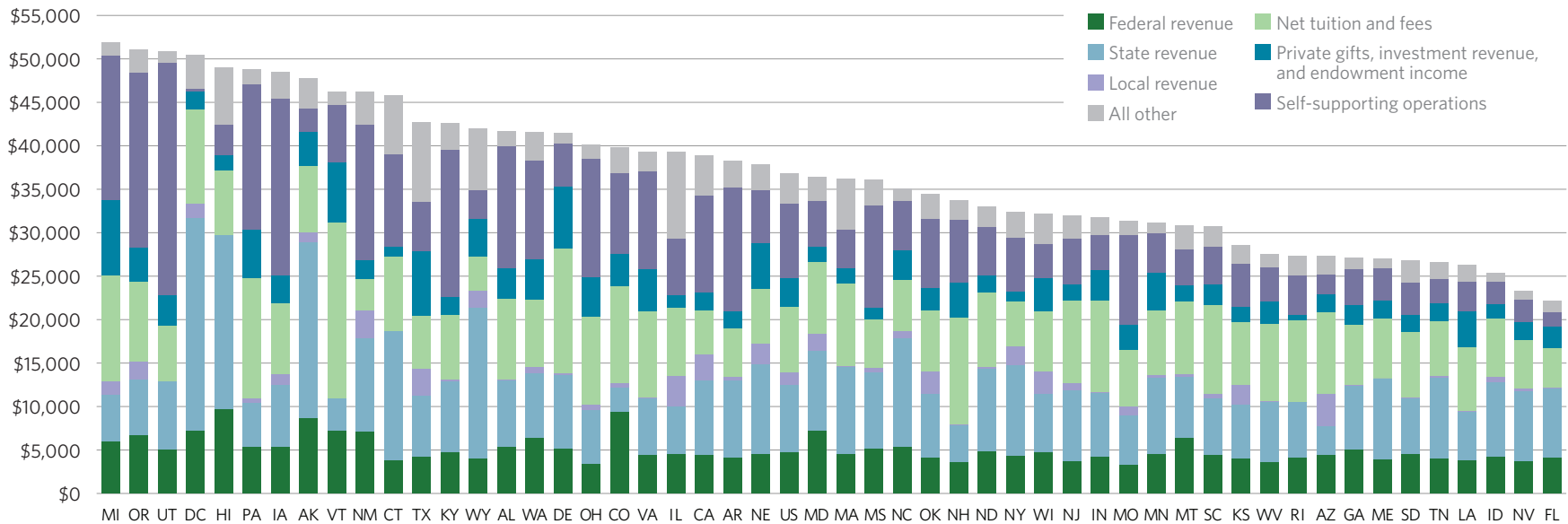
Source: Pew's analysis of data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System

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Figure 10

Public Institutions Rely on Federal, State, and Other Major Funding Sources at Varying Levels Across States

Composition of revenue per full-time equivalent student, by state, FY 2017



Note: Federal revenue in Pennsylvania and Delaware is understated because of those states' use of Financial Accounting Standards Board accounting standards. Colorado's net tuition and fees are overstated and its state revenue is understated because of the way data are captured in the source.

Source: Pew's analysis of data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System

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The total amount and mix of revenue used for public higher education vary across states. Per-FTE student revenue flowing to public institutions from federal sources ranges from \$3,268 in Missouri to \$9,693 in Hawaii, and from state sources it spans between \$2,769 in Colorado and \$20,265 in Alaska. Other elements, such as the amount of revenue from tuition, also vary. Federal funding variation stems from differences in students' financial needs and in the types of research conducted in each state, among other factors, while the range in state funding is due, in part, to policy choices. For example, North Carolina's and Wyoming's constitutions require that public institutions be as close to free as possible, so schools in those states receive more state revenue and less net tuition revenue than the average.¹⁶

Appendix: Extended Commentary

Figure 2

Federal funding in academic year 2017

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

- **Pell Grants and other financial aid grants.** Roughly \$28 billion went to support Pell Grants, which provide monetary awards that do not need to be repaid, based on financial need, mostly to students from low-income families.¹⁷ An additional \$1.7 billion supported other, mainly need-based, financial aid grants.
- **Research funding.** A total of \$26.5 billion from federal sources in the form of grants, contracts, and cooperative agreements supported science and engineering research projects and development 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 \$13.6 billion, this 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 and associated living expenses.¹⁹
- **General purpose appropriations.** A total of \$3 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, including several that provide aid to predominantly minority-serving institutions and TRIO, which helps disadvantaged students prepare for and succeed in college.²¹

State funding in 2017

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 \$66 billion paid for general operating expenses of public colleges and universities.²²
- **Research, agricultural, and medical education appropriations.** States spent \$10.2 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 \$11 billion went to support state financial aid programs, consisting mostly of grants that do not need to be repaid.²³ Like the federal government, most states provide financial aid based on need, but many also offer assistance on the basis of academic merit, or some combination of both.

Figure 3

Several factors contributed to the dramatic rise in Pell Grant funding from 2008 to 2010, including shifting financial realities for many families that resulted in more students qualifying for need-based grants, a greater number of students pursuing higher education, and an increase in award amounts and expanded eligibility for the program because of policy changes.²⁴

Pell spending reached its peak in 2010, and has since fallen by about a quarter, largely because of enrollment declines as the economy has improved.²⁵

Federal spending on veterans' education benefits doubled between 2009 and 2010 and has continued to increase steadily since. New spending was authorized under the Post-9/11 Veterans Educational Assistance Act of 2008, commonly known as the Post-9/11 GI Bill, which expanded eligibility for the GI Bill, provided enhanced benefits to veterans who served after Sept. 10, 2001, and permitted service members to transfer a portion of their entitlement to their dependents and other beneficiaries.²⁶

Federal funding for research spiked after 2008, boosted by the American Recovery and Reinvestment Act, commonly known as the stimulus bill.²⁷ But that temporary funding was largely gone by 2011, and spending has fallen back to roughly pre-recession levels, with only a slight increase in real terms of 2 percent since 2013.

During the same 2008-13 period, state appropriations for public postsecondary institutions fell by \$13.8 billion, or nearly 20 percent in real terms. In an effort to minimize these recession-driven state education cuts, the federal government provided roughly \$40 billion between 2009 and 2011 to states to bolster their K-12 and higher education spending. To receive this funding, states needed to maintain their own education spending at a minimum of 2006 levels, and they ultimately spent approximately \$8.3 billion of the federal dollars to help sustain support for institutions of higher education.²⁸

State higher education spending started rising again in 2014 along with revenue, but as of 2017, it was still \$2.2 billion below 2007 levels. This reflects a familiar pattern: Higher education has historically been the area of state

budgets most vulnerable to cuts in a downturn but has also tended to receive substantial funding increases as the economy recovers.²⁹

Similarly, state appropriations for research and agricultural and medical education had a net decline over the past decade, dropping by \$2.3 billion, or 18 percent, from their highs in 2008. By contrast, state financial aid funding saw an increase over the decade following the financial crisis, rising \$1.9 billion in real terms, or 21 percent from 2007 to 2017.

Figure 5

Although most Pell Grant and research funding flowed to public institutions, the money went to different types of schools. Nearly three-quarters of federal research funding to public colleges and universities went to only 16 percent of such institutions—those classified as doctoral institutions with the highest level of research activity. All federal research funding went to schools that award only four-year undergraduate degrees or higher.³⁰ The University of Washington, University of Michigan, and University of North Carolina were the top three among public schools in the amounts of federal research funding received. About 60 percent of Pell funding went to students attending institutions that offer only four-year undergraduate degrees or higher, and 40 percent went to students at schools that grant two-year degrees. Around 15 percent of Pell funding went to students enrolled in public institutions with the highest level of research activity.³¹ Miami Dade College, Arizona State University, and Ivy Tech Community College of Indiana were the top three public institutions in the amounts of Pell Grant funding received by students.

Figure 6

Federal support for veterans' education benefits shown in Figure 6 is spread across multiple programs. The largest is the Post-9/11 GI Bill, at about \$11 billion in 2017; the other seven programs considered in this analysis made up less than \$2.5 billion combined that same year:

- **Post-9/11 GI Bill.** This program provides education benefits for individuals with at least 90 days of active duty service after Sept. 10, 2001. Beneficiaries may transfer eligibility to qualifying dependents, such as spouses and children. Effective Aug. 1, 2018, the Harry W. Colmery Veterans Educational Assistance Act of 2017, or "Forever GI Bill," expanded eligibility and benefit usability and made other changes to the program.³²
- **Montgomery GI Bill-Active Duty (MGIB-AD).** This benefit is available to service members with two years of active duty and provides 36 months of coverage for a variety of higher education programs.³³

- **Montgomery GI Bill Selected Reserve (MGIB-SR).** This benefit is similar to MGIB-AD but requires a six-year service obligation in the reserves. Beneficiaries may be eligible for both the MGIB-AD and MGIB-SR if a six-year obligation is made in addition to the service requirement for the MGIB-AD.³⁴
- **Vocational Rehabilitation and Employment (VR&E).** This program provides resources to help veterans who have a service-related disability prepare for and find employment, including pursuing postsecondary education, and provides services for those who are unable to work.³⁵
- **Vocational Rehabilitation and Employment Subsistence Allowance.** Some participants in the VR&E program are eligible to receive a monthly subsistence allowance while enrolled in a qualified education or training program.³⁶
- **Post-Vietnam Veterans' Educational Assistance Program (VEAP).** This program provides matching funds for individuals who contributed military pay into the program before April 1, 1987. Eligible veterans may collect VEAP benefits for up to 10 years after separation from active duty.³⁷
- **Reserve Educational Assistance Program (REAP).** This program, which expired in November 2015, provided education benefits to reservists who were activated in response to a national emergency or war.³⁸
- **Survivors' and Dependents' Educational Assistance Program (DEA).** This program provides education benefits to dependents of veterans who have a service-related disability or died while on active duty or because of a service-related condition. Some beneficiaries may combine DEA and Post-9/11 GI Bill benefits.³⁹

Figure 7

The various federal loan programs have experienced different trends over the past decade.

- **Unsubsidized Stafford Loans.** These loans grew by \$16 billion between 2008 and 2018, or 50 percent in inflation-adjusted terms, to almost \$49 billion. The program caps the amount a student can take out—as low as \$5,500 per year for a freshman dependent undergraduate—a student who reports both their own and their parent or guardian's information on required forms—and as high as \$20,500 for a graduate student.⁴⁰ Part of the increase in recent years may be due to increasing loan limits as well as the elimination of the subsidized loan program for graduate students.⁴¹
- **Grad PLUS.** These loans began in 2006 and grew from an inflation-adjusted \$2.5 billion in 2007 (the first year for which data are available) to \$6.6 billion in 2018, a 182 percent increase.⁴²
- **Parent PLUS.** These loans grew by \$3.7 billion (40 percent) in inflation-adjusted terms between 2008 and 2018 to \$12.8 billion.

- **Perkins Loans.** Lending in this program for low-income students fell by more than \$800 million, or 51 percent, between 2008 and 2018 in inflation-adjusted terms.⁴³ Congress did not renew the program, and it expired at the end of fiscal 2017, with final disbursements permitted through June 30, 2018. Loan issuances in 2018 were around \$800 million.⁴⁴
- **Subsidized Stafford Loans.** Federal lending under the subsidized Stafford Loan program fell by \$13.6 billion, or 39 percent in inflation-adjusted terms, between 2008 and 2018, to about \$21 billion. These loans are based on financial need, and the Department of Education pays the interest on loans for students who are enrolled at least half-time, have left school or graduated in the past six months, or have elected to defer payments.⁴⁵ The subsidized Stafford loan limit for undergraduates is \$23,000; this loan was eliminated for graduate students in 2012, which may account for part of the decrease in these loans in recent years.

Endnotes

- 1 Pew's analysis of data from the Delta Cost Project Database, accessed July 2018, based on original data from the 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 financial aid grants, research grants, and general-purpose appropriations, and excluding loans and tax expenditures. Available data go back to 1987.
- 2 Ibid. This chartbook uses the terms "postsecondary education" and "higher education" interchangeably.
- 3 A. Hegji, "The Higher Education Act (HEA): A Primer," updated Oct. 24, 2018, Congressional Research Service, <https://fas.org/sgp/crs/misc/R43351.pdf>.
- 4 Pew analysis of Department of Education, Education Department Budget History Table: FY 1980 - FY 2019 President's Budget," updated October 26, 2018, <https://www2.ed.gov/about/overview/budget/history/index.html>. These data include spending on Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, Federal Work-Study, Aid for Institutional Development, Federal TRIO Programs, Scholarships and Fellowships, and funding for Howard University.
- 5 These figures reflect federal, state, and local funding levels in academic year 2017. They exclude capital appropriations and the cost of student aid administration, which, in 2017, for example, were \$11.8 billion and \$1.6 billion, respectively.
- 6 Pew's analysis of data for academic years 2008 and 2017 from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System, accessed January 2019, <https://nces.ed.gov/ipeds/use-the-data>. "Full-time equivalent" is a measure used by the U.S. Department of Education to account for students who are enrolled either full or part time as defined by each institution and make enrollment numbers comparable across institutions. The department's definition can be found at <https://surveys.nces.ed.gov/ipeds/VisGlossaryAll.aspx>.
- 7 Pew's analysis of FY 2017 data from the U.S. Department of Education, National Center for Education Statistics' Integrated Postsecondary Education Data System, accessed January 2019.
- 8 Pew's analysis of U.S. Department of Veterans Affairs, Office of Budget, "Annual Budget Submission" for fiscal years 2009-19, accessed December 2018, <https://www.va.gov/budget/products.asp>.

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