



Trends in College Spending: 2001–2011

A Delta Data Update
July 2014

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Trends in College Spending: 2001–2011

This *Trends in College Spending* update presents national-level estimates for the Delta Cost Project data metrics during the period 2001–11. The figures and tables in this report replicate the revenue, spending, subsidy, and outcome metrics presented in earlier Delta Cost Project *Trends in College Spending* reports and recent Delta Cost Project data updates (see <http://www.deltacostproject.org/product-types/trends-and-data-updates>). To accelerate the release of more current trend data, however, this update includes only a brief summary of the financial patterns and trends observed during the decade 2001–11, with greatest attention given to recent changes between fiscal year (FY) 2010 and FY 2011.

Summary of Findings

Four years after the Great Recession began, higher education appeared to have weathered the worst of the financial storm. By 2011, the free-fall in state funding per student had eased at public colleges and universities, and average revenues per student were steady or increasing at both public and private four-year institutions.

Spending declines had also more or less stabilized. Yet public and private research universities still showed cutbacks in education-related spending during 2011, despite posting larger revenue increases than other types of institutions. Institutional support spending was reigned in as four-year institutions continued to invest in noninstructional student services—although sometimes at the expense of instructional spending. Community colleges continued to show the greatest financial strain across higher education (even amid slower enrollment growth), with declines in revenue per student accompanied by widespread spending cuts.

As in years past, students paid an ever-larger share of the costs institutions incur to provide a college education—particularly students enrolled at public colleges and universities—as cuts in institutional subsidies persisted across most types of institutions. However, degree productivity¹ began to rise again at public institutions in 2011, accompanied by progress in lowering overall production costs per degree. Private institutions were less successful in boosting degree productivity and controlling costs per degree in 2011 but made longer-term gains in degree productivity, if not costs, over the decade.

¹ Degree productivity is measured as a change in the number of degrees awarded per FTE student in an academic year. Cost per degree measures total institutional spending on education and related activities per degree awarded; it does not reflect the cost incurred by students to finance a college education.

Revenue: Where Does the Money Come From?

Per-student revenues increased at research universities and private colleges in 2011; funding levels were unchanged at broadly accessible public four-year colleges but declined at public community colleges.

- Revenues per full-time equivalent (FTE) student increased an average of 1 percent to 4 percent in inflation-adjusted dollars at public research universities and private institutions in 2011.² Although community colleges suffered a 2 percent decline, this represented the smallest contraction in three years (see Figure 1 and Figure S1).
- Rising revenues at public research universities and private colleges were boosted by private gifts, investment returns, and endowment income and auxiliary services (residence halls, bookstores, meal services); public research universities also relied on increases in net tuition revenue more than private institutions. But in the rest of the public sector, declines in other revenue streams offset the rise in net tuition revenue.

Cuts in state and local appropriations per student eased considerably in 2011, accompanying smaller increases in net tuition revenue. Nevertheless, the damage from the recession was done: net tuition revenue nearly equaled or exceeded government funding at public four-year institutions in 2011.

- Among public colleges and universities, state and local funding per student decreased 2 percent to 4 percent in 2011—substantially lower than the 6 percent to 15 percent declines observed during the recession (see Figure 2 and Figure S1). However, state and local support reached a decade-long low in 2011, averaging about \$6,000 to \$8,000 per student at public four-year colleges and universities.
- Net tuition revenue also rose more slowly compared to the sharp increases observed in 2010; but at 4 percent to 6 percent, the increases were similar to those seen in 2009.

² Changes exclude revenue from private gifts, investment returns, and endowment income, which tend to reflect volatility in the financial markets.

Spending: Where Does the Money Go?

Sharp declines in education and related (E&R)³ spending per student that were evident during the recession had ended by 2011; however, spending still declined at the most and least selective institutions (research universities and community colleges), which fared worse than other four-year colleges.

- E&R spending per student decreased by roughly 1 percent at public and private research universities and community colleges in 2011⁴, while increasing by less than 1 percent (or remaining unchanged) at nonresearch colleges (see Figure 4 and Figure S2).
- Despite financial difficulties during the 2008 recession and subsequent recovery, average E&R spending per student at four-year institutions was still higher in 2011 than it had been five and ten years earlier, reflecting spending between 2007 and 2009 levels. But for the second year in a row, community colleges posted the lowest spending levels in a decade (see Figure 4 and Figure S2).

Four-year institutions generally continued to invest in noninstructional student services while pulling back on institutional support; efforts to preserve instructional spending were mixed.

- Only public and private master's institutions and public bachelor's institutions boosted average instructional spending per student (by roughly 1 percent each); elsewhere per-student spending on instruction remained steady or declined (see Figure 5).
- The student services share of E&R spending continued to grow over the decade, particularly at private institutions (see Figure 6). Increases in the proportion of spending devoted to student services during this period were largely offset by declines in the share going toward "overhead" expenses; however, the share of spending going to instruction also declined at private institutions and public research universities.

³ E&R spending incorporates expenditures for the academic mission of higher education. It includes costs related to instruction and student services and a prorated portion of spending on institutional and academic support and operations and maintenance. E&R spending excludes direct and indirect costs associated with research and public service, as well as spending on auxiliaries (e.g., bookstores, dormitories), hospitals, and other independent operations. For a complete description of the different spending categories, see http://www.deltacostproject.org/sites/default/files/products/Trends2011_Final_090711.pdf

⁴ Broader measures of spending were unchanged, buoyed by spending on research and auxiliary services.

Spending, Subsidies, and Tuition: Why Are Prices Going Up?

Institutional subsidies⁵ continued to decline across public institutions in 2011, with average subsidies hitting a decade-long low across nearly all types of higher education institutions.

- Subsidies declined by 2 percent to 4 percent at public nonresearch institutions in 2011—a slowdown compared to 2010 when declines averaged 8 percent or more. Public research universities were hit hardest, suffering a second year of 8 percent declines.
- At private research universities, average subsidies declined for a second year (4 percent), continuing to erode a long trend of rising subsidies across most of the decade. Average subsidies at other types of private institutions changed modestly in 2011 but were close to their lowest levels in a decade.

Educational costs have increasingly shifted onto students, and for the first time in 2011, tuitions paid for at least one-half of E&R costs across all types of public and private four-year institutions.

- The student share of E&R spending increased across most types of institutions by an additional 1–2 percentage points in 2011; the largest increase was at public research institutions (4 percentage points).
- Research institutions experienced a second year of similarly large increases in the student share of costs; at other public institutions, the increase in 2011 was only half as large as the substantial jumps experienced the year before.

At public institutions, the student share of costs has increased by more than 50 percent in a decade.

- At public four-year institutions, students now pay between 50 percent and 60 percent of the cost of their education—an 18–22 percentage point increase over the decade. At community colleges the student share of costs also rose by 15 percentage points but covered only 38 percent of total educational costs. Increases in the student share of costs at public institutions grew between 54 percent and 62 percent, on average, over the decade.
- Private institutions had smaller increases in the student share of costs, averaging 8 percentage points or less over the decade (a 7 percent to 11 percent increase). But their students already pay a much larger share of the total educational costs (72 percent to 92 percent) compared to public institutions.

⁵ Institutional subsidies reflect the difference between what institutions spend to provide students with an education and the net tuition revenue institutions receive to pay for students' education. At public institutions, institutional subsidies typically come from state and local appropriations, while at private institutions these subsidies often come from private gifts, investment returns, or endowment income.

Spending and Results: What Does the Money Buy?

Degree productivity at public institutions was on the upswing once again in 2011; changes at private institutions were more modest, but degree productivity showed a decade-long improvement at research and master's institutions.

- After recent declines, all types of public institutions increased degree productivity in 2011 (measured by the number of degrees awarded relative to the number of FTE students), with public research and master's institutions reaching a decade-long high.
- Degree productivity declined slightly at private research universities in 2011, but rose steadily across most of the decade at both private research and master's institutions.

The average production cost per degree decreased at public institutions in 2011, but only community colleges showed sustained declines across the decade.

- Average spending per degree declined across all types of public institutions in 2011 but was still higher at public four-year institutions than during the middle of the previous decade. Public community colleges, however, had the lowest cost per degree/completion⁶ in 10 years.
- Private colleges and universities managed to contain average spending per degree in 2011. While spending at private research and bachelor's institutions reached its peak in 2009, moreover, private research universities still spent considerably more per degree in 2011 (16 percent) than a decade earlier.

⁶ Completions include degrees and certificates.

About the Data

The 2001–10 data used in this report came from the official *IPEDS Analytics: Delta Cost Project Database 1987-2010*, which has been maintained by the U.S. Department of Education since January 2012. The 2011 data shown in the report were generated by the Delta Cost Project using the same procedures and formulas as those applied to prior year database updates, thus providing comparable estimates over time. The 2011 data, however, are not part of the official *IPEDS Analytics: Delta Cost Project Database*.

All data were drawn from the U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS) surveys. Adjustments have been made to harmonize and standardize the data to the extent possible in order to account for changes in accounting standards and IPEDS reporting formats. These adjustments ensure reasonable consistency in the patterns over time and allow broad comparisons between public and private institutions. The financial data for each institution are standardized by fall FTE enrollments and further adjusted for inflation. National averages are derived for each sector from these FTE- and inflation-adjusted institutional data.

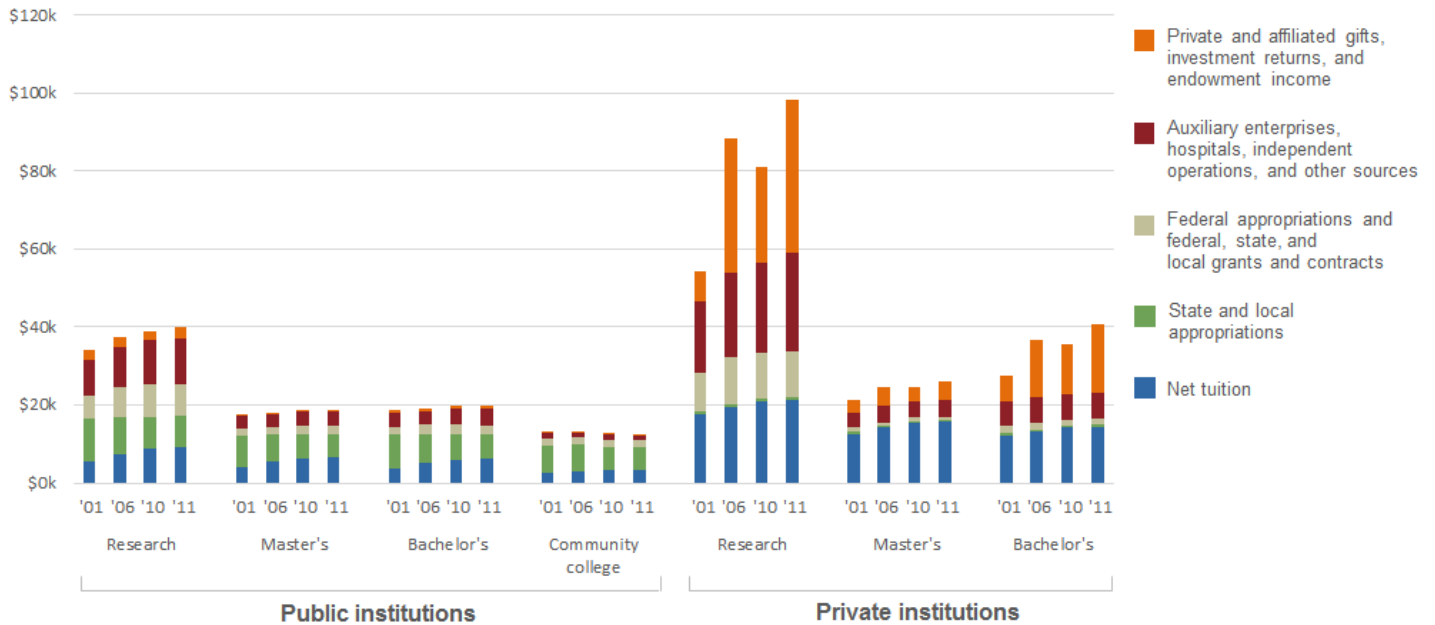
As is true of prior Delta Cost Project data updates, these data are not directly comparable with previously published estimates for several reasons. These data were generated using a panel of institutions to ensure that variations in spending across time are not explained by differences in the number of institutions reporting data. This panel is updated with each additional year of data added; more than 2,100 institutions are included in the 11-year matched set (2001–11) used in this report. In addition, inflation adjustments are also advanced each year; the data in this report are presented in 2011 dollars (using a fiscal year Consumer Price Index adjustment).

The 2001–11 data are organized using the new Carnegie 2010 institutional classification. Prior reports used the Carnegie 2005 designation. Although the Carnegie classification structure remains unchanged, nearly 170 public and private nonprofit institutions changed Carnegie categories as a result of the 2010 update (although not all are included in the panel of institutions used in this analysis) and were reclassified across all years to reflect their current Carnegie 2010 designations. For additional information about the database, metrics, and definitions, refer to prior [Trends in College Spending](#) publications and updates.

Revenue: Where Does the Money Come From?

Figure 1

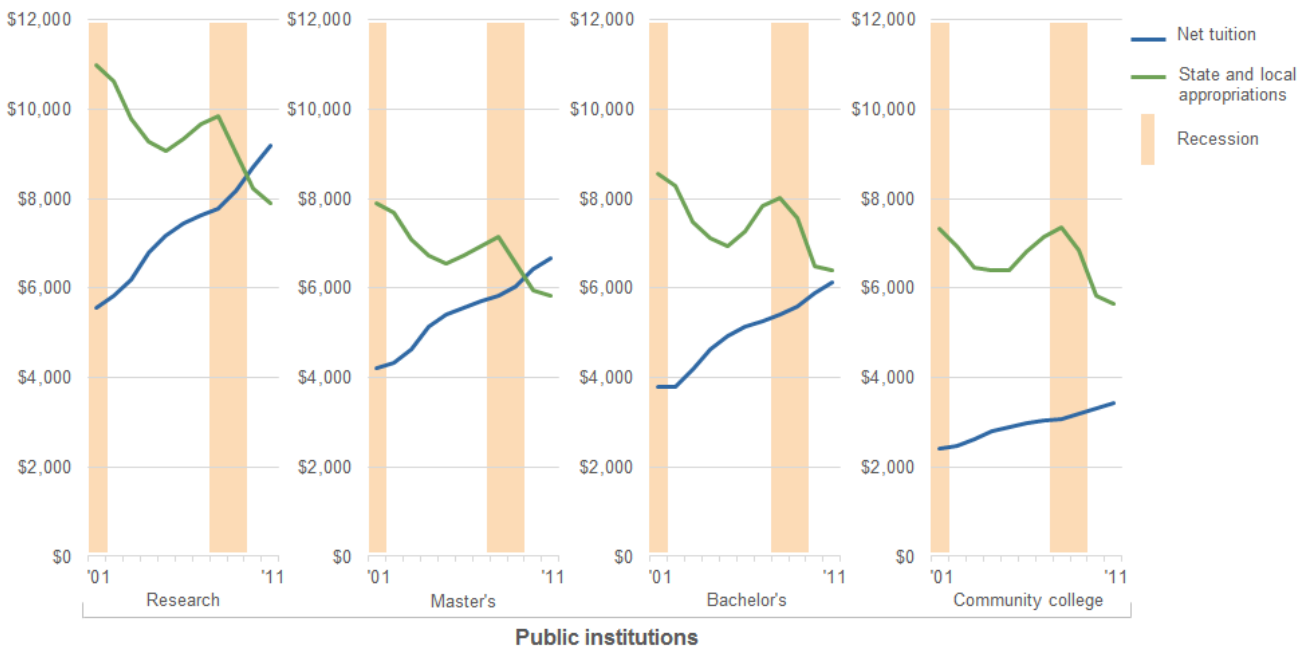
Total Revenues per FTE Student, FY 2001–FY 2011 (in 2011 dollars)



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 2

Net Tuition Revenue and State and Local Appropriations per FTE Student, FY 2001–FY 2011 (in 2011 dollars)



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 3

Pricing Versus Revenues per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

Public research	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$4,639	\$6,394	\$7,490	\$7,939	\$449	6.0%
Gross tuition revenue	\$6,681	\$9,022	\$10,619	\$11,230	\$610	5.7%
Net tuition revenue	\$5,566	\$7,447	\$8,706	\$9,194	\$488	5.6%
Tuition discount rate	16%	17%	18%	18%		0%

Public master's	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$3,904	\$5,263	\$6,179	\$6,425	\$246	4.0%
Gross tuition revenue	\$4,772	\$6,262	\$7,321	\$7,604	\$283	3.9%
Net tuition revenue	\$4,198	\$5,573	\$6,434	\$6,681	\$247	3.8%
Tuition discount rate	13%	11%	12%	12%		0%

Public bachelor's	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$3,962	\$5,102	\$5,874	\$6,018	\$143	2.4%
Gross tuition revenue	\$4,388	\$5,957	\$6,847	\$7,190	\$343	5.0%
Net tuition revenue	\$3,791	\$5,144	\$5,881	\$6,134	\$254	4.3%
Tuition discount rate	14%	14%	14%	15%		1%

Public community college	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$1,845	\$2,355	\$2,585	\$2,718	\$133	5.1%
Gross tuition revenue	\$2,606	\$3,210	\$3,595	\$3,707	\$112	3.1%
Net tuition revenue	\$2,410	\$2,964	\$3,321	\$3,424	\$102	3.1%
Tuition discount rate	9%	10%	10%	11%		1%

Private research	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$23,876	\$28,029	\$31,753	\$32,471	\$718	2.3%
Gross tuition revenue	\$23,581	\$26,961	\$30,271	\$30,840	\$569	1.9%
Net tuition revenue	\$17,792	\$19,532	\$20,890	\$21,151	\$261	1.3%
Tuition discount rate	23%	26%	30%	30%		0%

Private master's	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$17,562	\$20,640	\$23,709	\$24,288	\$579	2.4%
Gross tuition revenue	\$16,593	\$19,092	\$21,640	\$22,130	\$491	2.3%
Net tuition revenue	\$12,643	\$14,207	\$15,563	\$15,680	\$118	0.8%
Tuition discount rate	24%	25%	28%	28%		0%

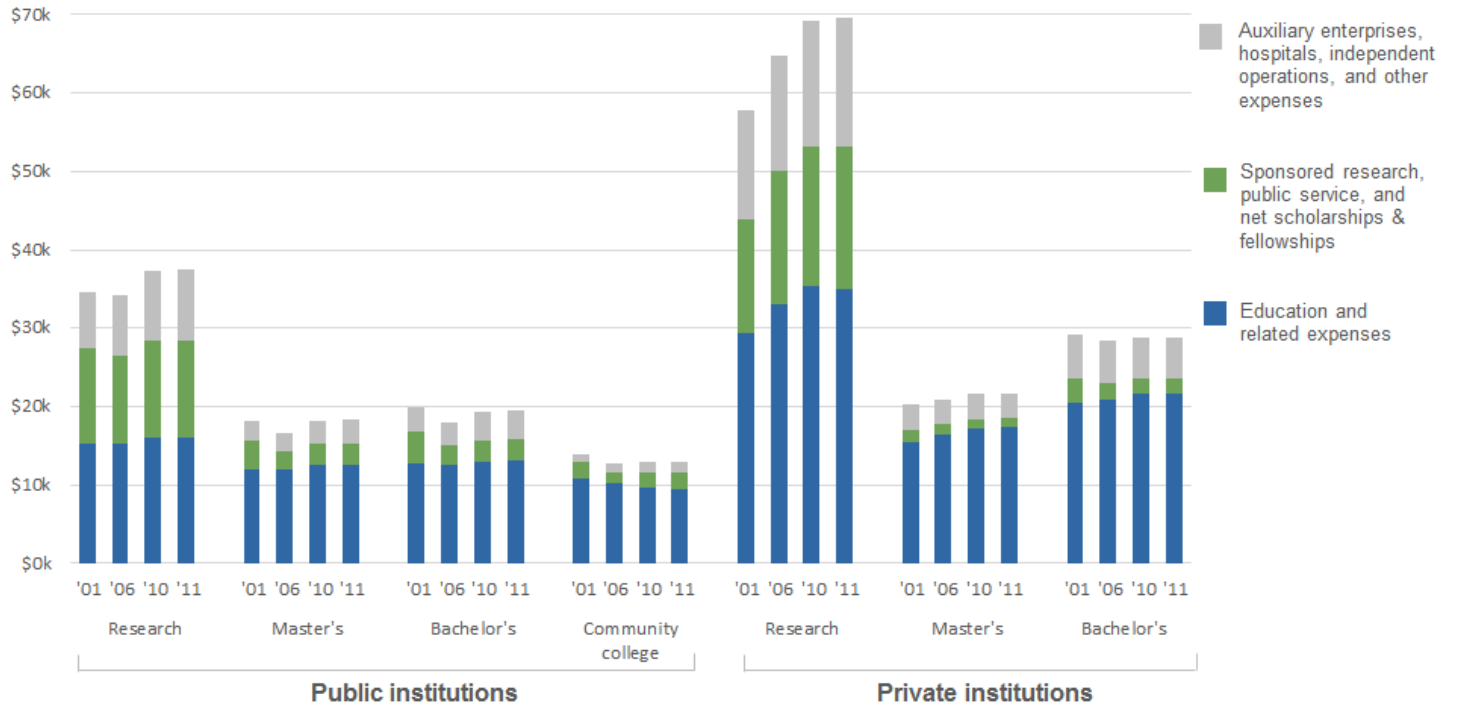
Private bachelor's	2001	2006	2010	2011	2010–2011 change	
					\$	%
Sticker price	\$17,810	\$20,860	\$23,733	\$24,490	\$757	3.2%
Gross tuition revenue	\$17,896	\$20,231	\$23,027	\$23,493	\$466	2.0%
Net tuition revenue	\$12,255	\$13,321	\$14,448	\$14,484	\$35	0.2%
Tuition discount rate	32%	33%	36%	38%		2%

Sources. IPEDS Analytics: Delta Cost Project Database 1987–2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Spending: Where Does the Money Go?

Figure 4

Total Expenditures per FTE Student by Grouped Expense Categories, FY 2001–FY 2011 (in 2011 dollars)



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 5

Total Expenditures per FTE Student by Standard Expense Categories, FY 2001–FY 2011 (in 2011 dollars)

Public research	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$9,708	\$9,551	\$10,187	\$10,134	\$426	4.4%	-\$53	-0.5%
Research	\$5,261	\$5,529	\$6,010	\$6,090	\$830	15.8%	\$80	1.3%
Student services	\$1,227	\$1,298	\$1,424	\$1,429	\$202	16.4%	\$5	0.4%
Public service	\$1,956	\$1,939	\$2,048	\$2,028	\$72	3.7%	-\$19	-0.9%
Academic support	\$2,701	\$2,526	\$2,957	\$2,838	\$137	5.1%	-\$120	-4.0%
Institutional support	\$2,268	\$2,327	\$2,550	\$2,514	\$246	10.9%	-\$36	-1.4%
Operation and maintenance	\$1,924	\$2,208	\$1,818	\$1,838	-\$86	-4.5%	\$20	1.1%

Public master's	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$6,171	\$6,061	\$6,469	\$6,545	\$374	6.1%	\$76	1.2%
Research	\$383	\$382	\$409	\$400	\$17	4.4%	-\$9	-2.1%
Student services	\$1,312	\$1,318	\$1,485	\$1,507	\$196	14.9%	\$22	1.5%
Public service	\$652	\$633	\$590	\$570	-\$82	-12.6%	-\$20	-3.4%
Academic support	\$1,561	\$1,448	\$1,547	\$1,534	-\$27	-1.7%	-\$13	-0.8%
Institutional support	\$2,060	\$1,970	\$2,071	\$2,038	-\$22	-1.1%	-\$33	-1.6%
Operation and maintenance	\$1,468	\$1,655	\$1,398	\$1,400	-\$68	-4.6%	\$2	0.1%

Public bachelor's	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$5,981	\$5,763	\$6,200	\$6,249	\$268	4.5%	\$49	0.8%
Research	\$403	\$491	\$459	\$434	\$30	7.5%	-\$26	-5.6%
Student services	\$1,721	\$1,583	\$1,696	\$1,694	-\$27	-1.6%	-\$2	-0.1%
Public service	\$801	\$685	\$524	\$556	-\$245	-30.6%	\$31	6.0%
Academic support	\$1,578	\$1,367	\$1,509	\$1,502	-\$77	-4.9%	-\$7	-0.5%
Institutional support	\$2,421	\$2,362	\$2,464	\$2,471	\$49	2.0%	\$6	0.3%
Operation and maintenance	\$1,782	\$2,058	\$1,617	\$1,659	-\$122	-6.9%	\$42	2.6%

Public community college	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$5,514	\$5,120	\$4,894	\$4,843	-\$671	-12.2%	-\$51	-1.0%
Research	\$41	\$69	\$59	\$64	\$23	55.6%	\$5	7.8%
Student services	\$1,259	\$1,236	\$1,207	\$1,172	-\$87	-6.9%	-\$35	-2.9%
Public service	\$447	\$377	\$327	\$310	-\$137	-30.7%	-\$17	-5.3%
Academic support	\$1,113	\$983	\$933	\$919	-\$194	-17.4%	-\$14	-1.5%
Institutional support	\$1,910	\$1,804	\$1,714	\$1,716	-\$194	-10.2%	\$2	0.1%
Operation and maintenance	\$1,191	\$1,228	\$1,061	\$1,029	-\$162	-13.6%	-\$32	-3.0%

Private research	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$16,942	\$19,111	\$20,114	\$20,103	\$3,161	18.7%	-\$11	-0.1%
Research	\$9,613	\$11,819	\$12,201	\$12,617	\$3,005	31.3%	\$416	3.4%
Student services	\$2,706	\$3,165	\$3,489	\$3,511	\$805	29.8%	\$21	0.6%
Public service	\$1,172	\$1,334	\$1,322	\$1,330	\$157	13.4%	\$8	0.6%
Academic support	\$4,690	\$5,199	\$5,681	\$5,756	\$1,066	22.7%	\$75	1.3%
Institutional support	\$5,837	\$6,527	\$6,943	\$6,829	\$992	17.0%	-\$114	-1.6%
Operation and maintenance	\$3,027	\$3,979	\$4,045	\$3,735	\$707	23.4%	-\$311	-7.7%

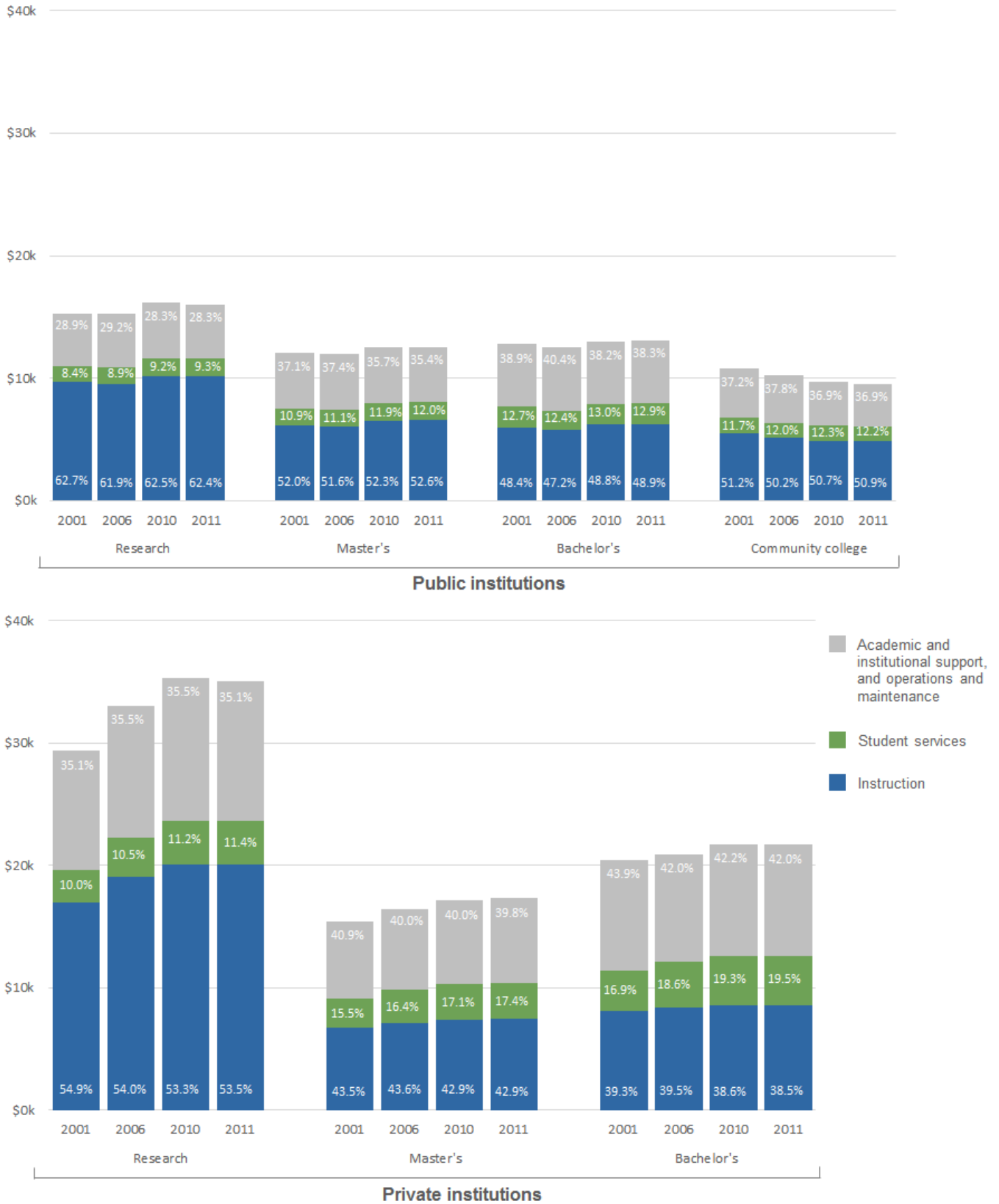
Private master's	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$6,707	\$7,142	\$7,377	\$7,439	\$732	10.9%	\$62	0.8%
Research	\$567	\$522	\$514	\$481	-\$86	-15.2%	-\$33	-6.4%
Student services	\$2,387	\$2,676	\$2,897	\$2,967	\$580	24.3%	\$70	2.4%
Public service	\$586	\$533	\$491	\$503	-\$83	-14.2%	\$12	2.5%
Academic support	\$1,587	\$1,694	\$1,736	\$1,769	\$182	11.5%	\$33	1.9%
Institutional support	\$3,566	\$3,816	\$3,929	\$3,913	\$347	9.7%	-\$16	-0.4%
Operation and maintenance	\$1,391	\$1,511	\$1,473	\$1,445	\$54	3.9%	-\$28	-1.9%

Private bachelor's	2001	2006	2010	2011	10-year change		1-year change	
					\$	%	\$	%
Instruction	\$8,098	\$8,368	\$8,588	\$8,547	\$449	5.5%	-\$42	-0.5%
Research	\$919	\$866	\$823	\$807	-\$112	-12.1%	-\$15	-1.8%
Student services	\$3,340	\$3,754	\$3,997	\$4,052	\$711	21.3%	\$55	1.4%
Public service	\$687	\$625	\$598	\$629	-\$58	-8.5%	\$30	5.1%
Academic support	\$1,996	\$2,084	\$2,150	\$2,120	\$124	6.2%	-\$30	-1.4%
Institutional support	\$5,360	\$5,171	\$5,208	\$5,152	-\$208	-3.9%	-\$56	-1.1%
Operation and maintenance	\$2,012	\$2,265	\$2,167	\$2,201	\$189	9.4%	\$33	1.5%

Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 6

Average Education and Related Spending per FTE Student by Component, FY 2001–FY 2011

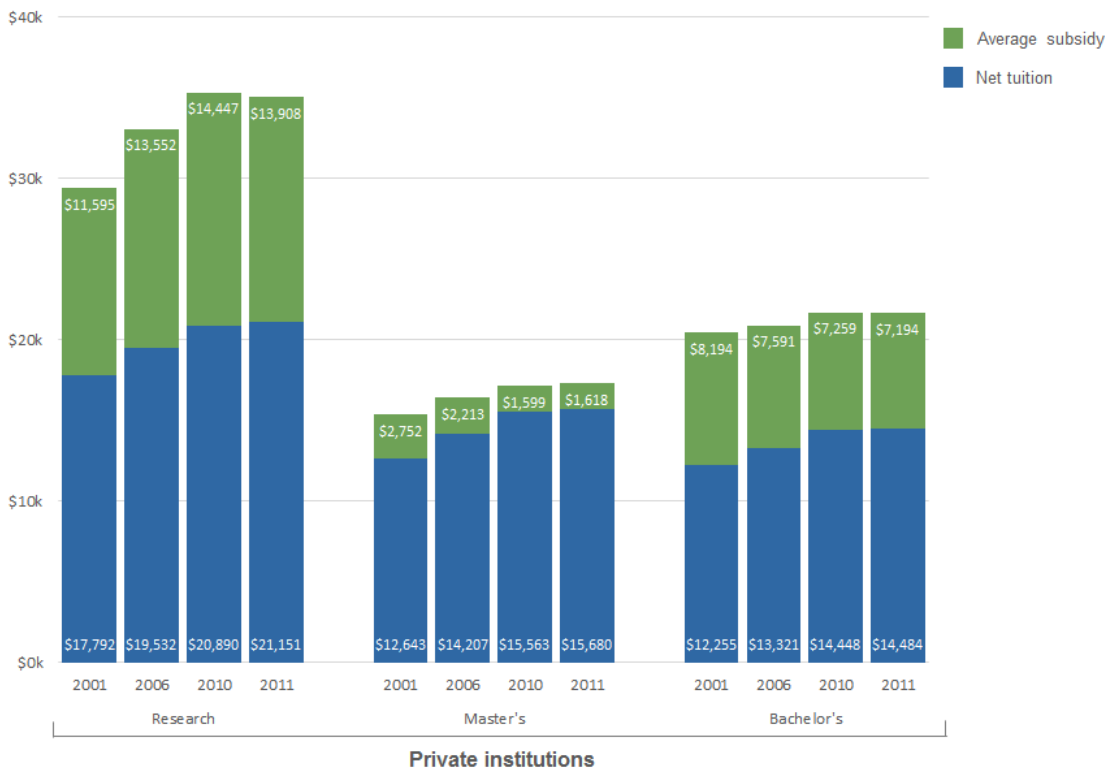
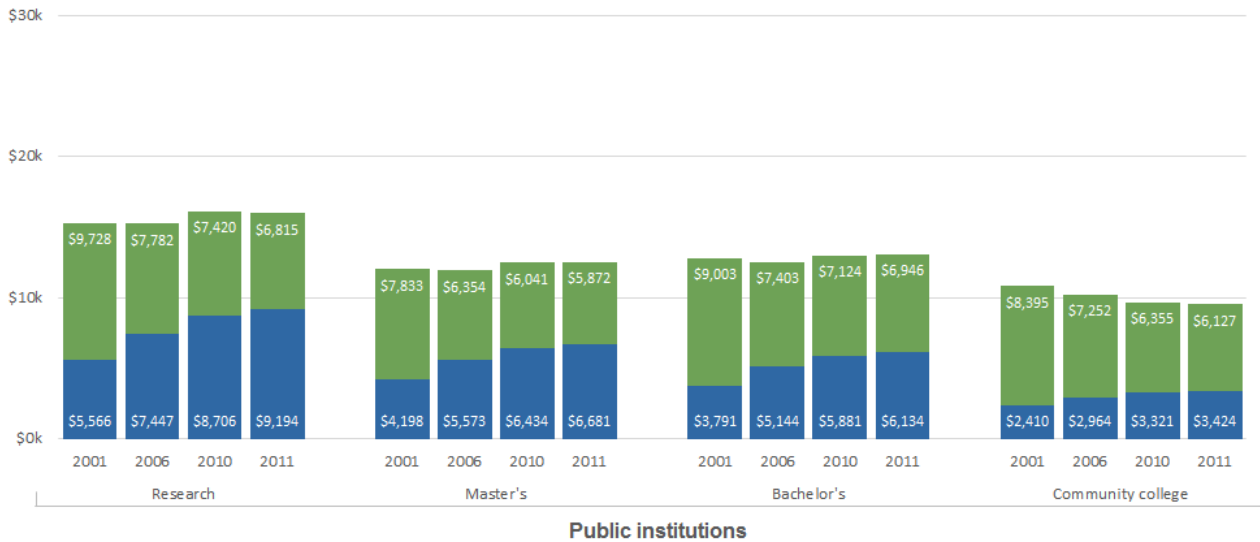


Sources. IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Spending, Subsidies, and Tuitions: Why Are Prices Going Up?

Figure 7

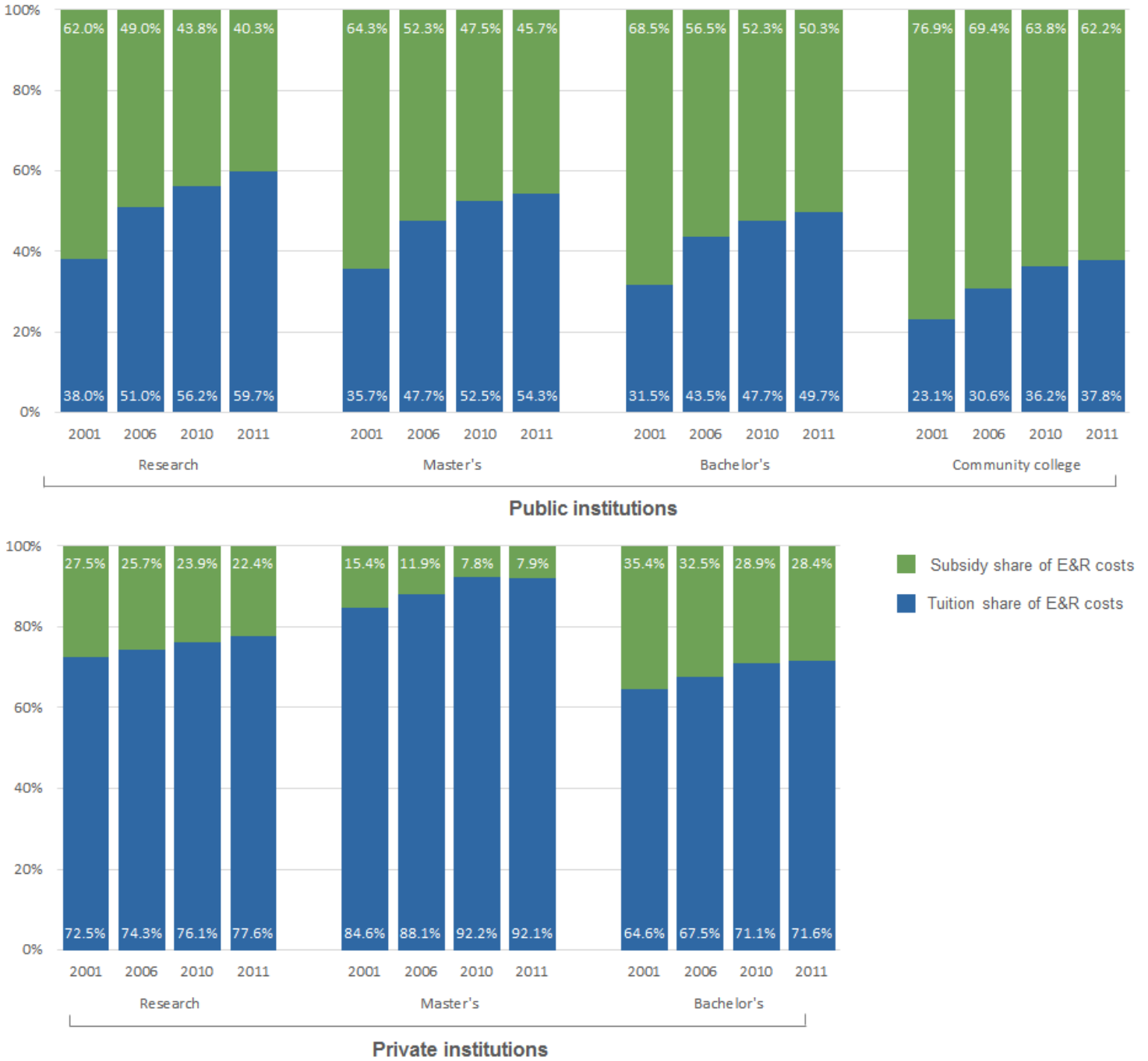
Average Education and Related Spending per FTE Student by Net Tuition and Subsidy, FY 2001–FY 2011 (in 2011 dollars)



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 8

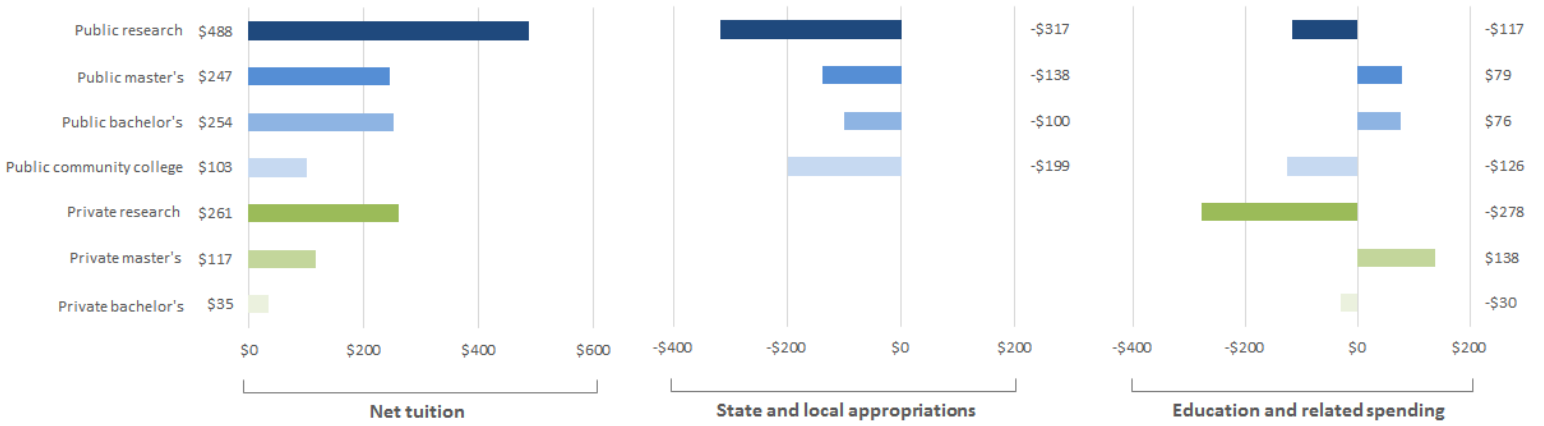
Net Tuition and Subsidy Shares of Education and Related Costs, FY 2001–FY 2011



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 9

Changes in Net Tuition Revenue, State and Local Appropriations, and Education and Related Costs, FY 2010–FY 2011 (in 2011 dollars)

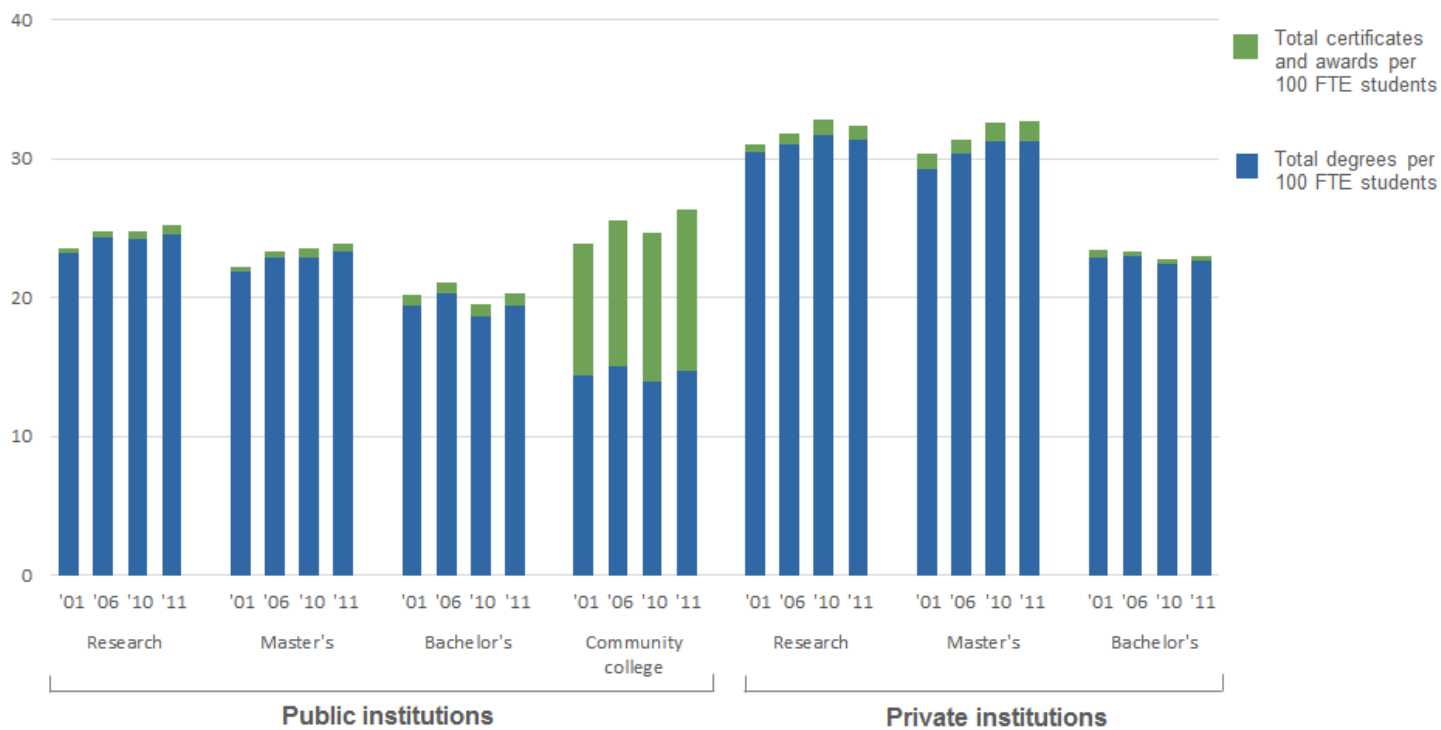


Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Spending and Results: What Does the Money Buy?

Figure 10

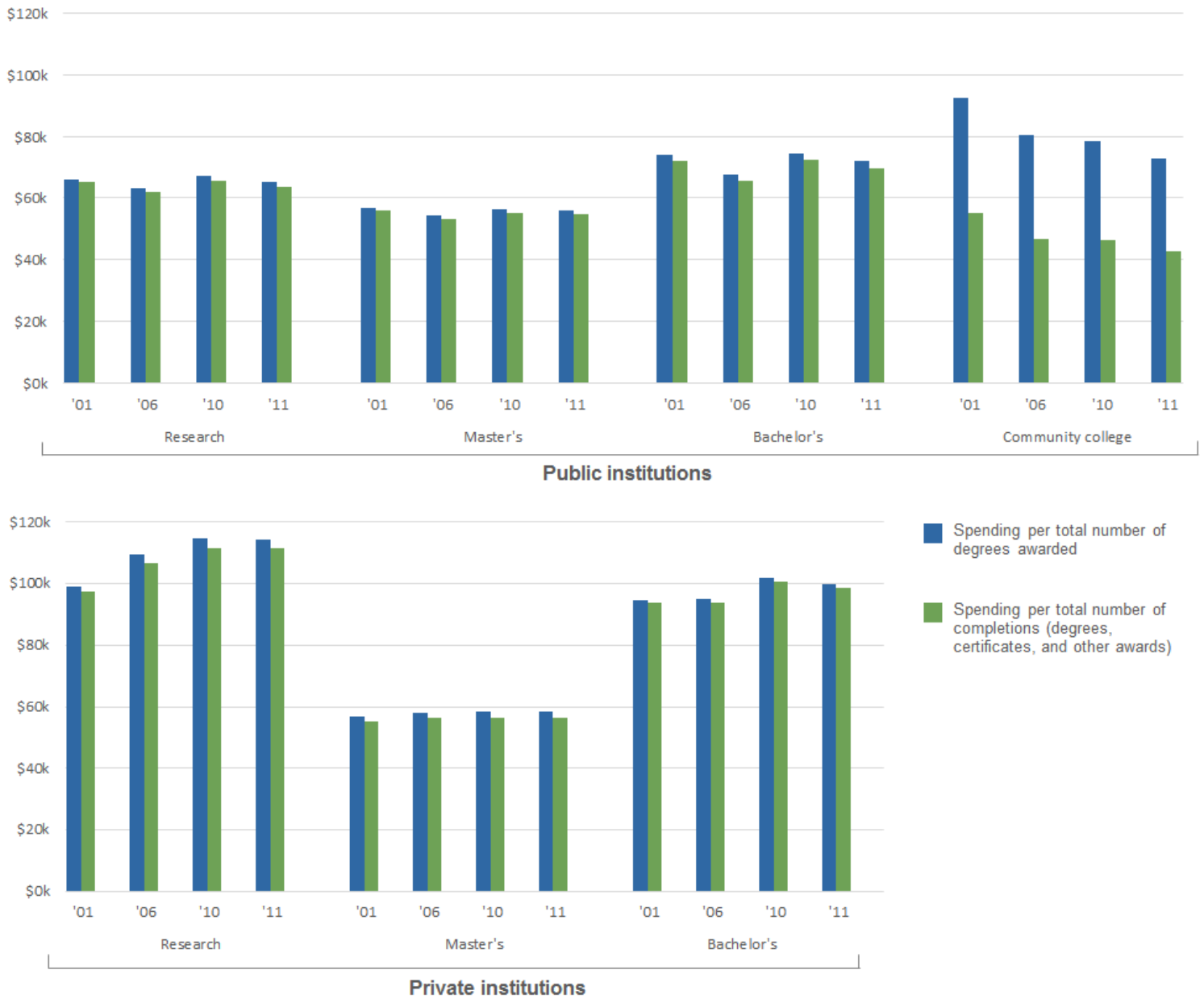
Total Degrees and Completions per 100 FTE Students, FY 2001–FY 2011



Sources. IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure 11

Education and Related Spending per Degree and Completion per 100 FTE Students, FY 2001–FY 2011 (in 2011 dollars)



Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Supplemental Tables

Figure S1

Average Revenues per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

Public research institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$5,566	\$5,834	\$6,192	\$6,776	\$7,171	\$7,447	\$7,640	\$7,784	\$8,180	\$8,706	\$9,194
State and local appropriations	\$10,983	\$10,636	\$9,798	\$9,265	\$9,063	\$9,336	\$9,679	\$9,841	\$9,049	\$8,219	\$7,902
Federal appropriations and federal, state, and local grants and contracts	\$5,665	\$7,204	\$7,579	\$7,815	\$7,964	\$7,984	\$7,949	\$7,853	\$8,115	\$8,334	\$8,401
Auxiliary enterprises, hospitals, independent operations, and other sources	\$9,486	\$9,454	\$9,273	\$9,766	\$9,850	\$10,108	\$10,434	\$10,653	\$11,101	\$11,397	\$11,662
Operating revenues (excluding PIE)	\$31,700	\$33,129	\$32,843	\$33,621	\$34,048	\$34,640	\$35,459	\$35,945	\$36,275	\$36,501	\$37,011
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$2,567	\$1,341	\$1,991	\$2,102	\$2,195	\$2,386	\$3,346	\$1,587	-\$334	\$2,309	\$2,797
Total operating revenue	\$34,267	\$34,470	\$34,834	\$35,723	\$36,243	\$37,027	\$38,804	\$37,532	\$35,941	\$38,810	\$39,808
Public master's institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$4,198	\$4,339	\$4,642	\$5,151	\$5,422	\$5,573	\$5,708	\$5,829	\$6,046	\$6,434	\$6,681
State and local appropriations	\$7,883	\$7,678	\$7,083	\$6,724	\$6,556	\$6,742	\$6,951	\$7,160	\$6,557	\$5,961	\$5,823
Federal appropriations and federal, state, and local grants and contracts	\$1,783	\$1,873	\$1,913	\$1,953	\$1,914	\$1,957	\$1,992	\$2,050	\$1,975	\$2,156	\$2,102
Auxiliary enterprises, hospitals, independent operations, and other sources	\$3,219	\$3,058	\$3,034	\$3,129	\$3,303	\$3,200	\$3,307	\$3,334	\$3,547	\$3,712	\$3,725
Operating revenues (excluding PIE)	\$17,081	\$16,947	\$16,672	\$16,956	\$17,195	\$17,386	\$17,869	\$18,282	\$18,043	\$18,187	\$18,256
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$515	\$365	\$339	\$325	\$360	\$450	\$610	\$448	\$266	\$371	\$387
Total operating revenue	\$17,585	\$17,310	\$17,009	\$17,280	\$17,555	\$17,836	\$18,480	\$18,728	\$18,307	\$18,557	\$18,643
Public bachelor's institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$3,791	\$3,795	\$4,193	\$4,642	\$4,919	\$5,144	\$5,271	\$5,412	\$5,587	\$5,881	\$6,134
State and local appropriations	\$8,568	\$8,292	\$7,472	\$7,108	\$6,931	\$7,272	\$7,837	\$8,010	\$7,565	\$6,491	\$6,391
Federal appropriations and federal, state, and local grants and contracts	\$2,067	\$2,319	\$2,422	\$2,325	\$2,372	\$2,530	\$2,460	\$2,525	\$2,442	\$2,648	\$2,345
Auxiliary enterprises, hospitals, independent operations, and other sources	\$3,462	\$3,788	\$3,656	\$3,548	\$3,558	\$3,563	\$3,788	\$3,760	\$3,922	\$4,039	\$4,182
Operating revenues (excluding PIE)	\$17,888	\$18,194	\$17,743	\$17,624	\$17,780	\$18,229	\$18,954	\$19,297	\$19,128	\$18,725	\$18,725
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$715	\$540	\$645	\$624	\$645	\$699	\$878	\$681	\$403	\$647	\$714
Total operating revenue	\$18,575	\$18,721	\$18,388	\$18,249	\$18,424	\$18,928	\$19,832	\$19,978	\$19,531	\$19,373	\$19,429
Public community colleges	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$2,410	\$2,458	\$2,630	\$2,809	\$2,887	\$2,964	\$3,053	\$3,068	\$3,176	\$3,321	\$3,424
State and local appropriations	\$7,320	\$6,938	\$6,458	\$6,389	\$6,396	\$6,829	\$7,140	\$7,367	\$6,849	\$5,837	\$5,638
Federal appropriations and federal, state, and local grants and contracts	\$1,807	\$1,752	\$1,840	\$1,872	\$1,760	\$1,803	\$1,867	\$1,912	\$1,984	\$1,860	\$1,782
Auxiliary enterprises, hospitals, independent operations, and other sources	\$1,330	\$1,416	\$1,317	\$1,366	\$1,272	\$1,253	\$1,274	\$1,339	\$1,279	\$1,331	\$1,314
Operating revenues (excluding PIE)	\$12,817	\$12,507	\$12,189	\$12,392	\$12,280	\$12,708	\$13,197	\$13,559	\$13,169	\$12,238	\$12,049
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$215	\$214	\$190	\$168	\$229	\$299	\$382	\$302	\$179	\$158	\$149
Total operating revenue	\$12,986	\$12,694	\$12,370	\$12,556	\$12,505	\$13,003	\$13,573	\$13,856	\$13,345	\$12,394	\$12,195

Note: The federal grants category excludes Pell grants; they are included in net tuition revenue. Investment returns include unrealized gains/losses.

Data may not sum to totals because revenues were summed at the institution level before calculating aggregate category averages.

Sources: IPEDS Analytics: Delta Cost Project Database 1987–2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure S1, continued

Average Revenues per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

Private research institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$17,792	\$18,423	\$18,755	\$19,039	\$19,564	\$19,532	\$20,207	\$20,438	\$20,736	\$20,890	\$21,151
State and local appropriations	\$518	\$513	\$1,037	\$836	\$740	\$814	\$853	\$897	\$757	\$658	\$821
Federal appropriations and federal, state, and local grants and contracts	\$9,849	\$10,736	\$11,199	\$12,026	\$12,380	\$11,977	\$11,690	\$11,483	\$11,495	\$11,821	\$11,811
Auxiliary enterprises, hospitals, independent operations, and other sources	\$18,567	\$18,954	\$19,331	\$20,232	\$21,183	\$21,602	\$22,808	\$23,439	\$22,501	\$23,218	\$25,115
Operating revenues (excluding PIE)	\$45,855	\$47,714	\$49,228	\$51,137	\$53,066	\$53,067	\$54,676	\$55,230	\$54,568	\$55,850	\$58,115
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$7,616	\$4,819	\$15,776	\$31,238	\$31,564	\$34,423	\$47,176	\$15,734	-\$30,879	\$24,291	\$39,323
Total operating revenue	\$53,471	\$52,533	\$65,004	\$82,375	\$84,630	\$87,490	\$101,852	\$70,964	\$23,689	\$80,141	\$97,438
Private master's institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$12,643	\$13,076	\$13,326	\$13,749	\$14,116	\$14,207	\$14,661	\$14,785	\$15,317	\$15,563	\$15,680
State and local appropriations	\$594	\$553	\$479	\$453	\$447	\$433	\$406	\$436	\$426	\$324	\$312
Federal appropriations and federal, state, and local grants and contracts	\$973	\$1,074	\$1,021	\$1,012	\$917	\$884	\$825	\$788	\$823	\$850	\$806
Auxiliary enterprises, hospitals, independent operations, and other sources	\$3,950	\$4,066	\$4,044	\$4,177	\$4,119	\$4,295	\$4,398	\$4,166	\$4,141	\$4,171	\$4,316
Operating revenues (excluding PIE)	\$17,604	\$18,240	\$18,406	\$18,929	\$19,149	\$19,394	\$19,891	\$19,760	\$20,298	\$20,587	\$20,792
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$3,255	\$2,235	\$3,037	\$5,002	\$4,413	\$4,734	\$6,065	\$2,690	-\$1,314	\$3,631	\$4,978
Total operating revenue	\$20,859	\$20,475	\$21,444	\$23,931	\$23,562	\$24,128	\$25,956	\$22,449	\$18,984	\$24,218	\$25,769
Private bachelor's institutions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net tuition	\$12,255	\$12,304	\$12,440	\$12,860	\$13,136	\$13,321	\$13,673	\$13,864	\$14,255	\$14,448	\$14,484
State and local appropriations	\$427	\$439	\$380	\$339	\$297	\$415	\$450	\$545	\$513	\$393	\$493
Federal appropriations and federal, state, and local grants and contracts	\$1,903	\$1,751	\$1,733	\$1,600	\$1,582	\$1,534	\$1,470	\$1,380	\$1,455	\$1,459	\$1,392
Auxiliary enterprises, hospitals, independent operations, and other sources	\$6,232	\$6,206	\$6,277	\$7,553	\$6,726	\$6,885	\$6,495	\$6,533	\$6,910	\$6,619	\$6,894
Operating revenues (excluding PIE)	\$20,251	\$20,126	\$20,310	\$21,872	\$21,308	\$21,632	\$21,554	\$21,698	\$22,545	\$22,449	\$22,691
Private and affiliated gifts, grants, contracts, investment returns, and endowment income (PIE)	\$6,542	\$4,127	\$7,745	\$15,263	\$12,689	\$14,563	\$20,978	\$5,881	-\$8,519	\$12,583	\$17,327
Total operating revenue	\$26,793	\$24,297	\$28,039	\$37,102	\$33,970	\$36,163	\$42,532	\$27,579	\$14,045	\$34,977	\$39,942

Note: The federal grants category excludes Pell grants; they are included in net tuition revenue. Investment returns include unrealized gains/losses.

Data may not sum to totals because revenues were summed at the institution level before calculating aggregate category averages.

Sources. IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure S2

Average Expenditures per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Public research institutions											
Instruction	\$9,708	\$9,606	\$9,422	\$9,308	\$9,404	\$9,551	\$9,798	\$9,990	\$10,106	\$10,187	\$10,134
Research	\$5,261	\$5,265	\$5,421	\$5,550	\$5,587	\$5,529	\$5,538	\$5,597	\$5,751	\$6,010	\$6,090
Student services	\$1,227	\$1,262	\$1,242	\$1,251	\$1,265	\$1,298	\$1,329	\$1,364	\$1,401	\$1,424	\$1,429
Public service	\$1,956	\$1,973	\$1,931	\$1,980	\$1,971	\$1,939	\$1,964	\$2,016	\$1,989	\$2,048	\$2,028
Academic support	\$2,701	\$2,443	\$2,398	\$2,410	\$2,446	\$2,526	\$2,595	\$2,842	\$2,882	\$2,957	\$2,838
Institutional support	\$2,268	\$2,244	\$2,232	\$2,201	\$2,235	\$2,327	\$2,434	\$2,557	\$2,563	\$2,550	\$2,514
Operations and maintenance	\$1,924	\$2,034	\$1,934	\$1,997	\$2,064	\$2,208	\$2,248	\$2,218	\$2,188	\$1,818	\$1,838
Net scholarships and fellowships	\$2,316	\$1,197	\$1,118	\$1,046	\$1,093	\$1,100	\$1,125	\$1,147	\$1,207	\$1,442	\$1,496
Education and general	\$27,348	\$26,012	\$25,671	\$25,718	\$26,039	\$26,451	\$26,998	\$27,697	\$28,051	\$28,395	\$28,339
Auxiliary enterprises, hospitals, independent and other operations	\$7,280	\$7,262	\$7,183	\$7,344	\$7,423	\$7,665	\$7,857	\$8,428	\$8,634	\$8,834	\$9,069
Total operating expenditures	\$34,628	\$33,274	\$32,854	\$33,063	\$33,462	\$34,116	\$34,855	\$36,125	\$36,684	\$37,229	\$37,408
Grouped expense categories											
Education and related	\$15,295	\$15,092	\$14,739	\$14,623	\$14,814	\$15,229	\$15,669	\$16,100	\$16,266	\$16,126	\$16,009
Research and related	\$7,124	\$7,095	\$7,264	\$7,430	\$7,511	\$7,514	\$7,559	\$7,715	\$7,902	\$8,119	\$8,152
Public service and related	\$2,630	\$2,645	\$2,580	\$2,649	\$2,651	\$2,639	\$2,683	\$2,774	\$2,715	\$2,753	\$2,710
Net scholarships and fellowships	\$2,316	\$1,197	\$1,118	\$1,046	\$1,093	\$1,100	\$1,125	\$1,147	\$1,207	\$1,442	\$1,496
Education and general	\$27,348	\$26,012	\$25,671	\$25,718	\$26,039	\$26,451	\$26,998	\$27,697	\$28,051	\$28,395	\$28,339
Auxiliary enterprises, hospitals, independent and other operations	\$7,280	\$7,262	\$7,183	\$7,344	\$7,423	\$7,665	\$7,857	\$8,428	\$8,634	\$8,834	\$9,069
Total operating expenditures	\$34,628	\$33,274	\$32,854	\$33,063	\$33,462	\$34,116	\$34,855	\$36,125	\$36,684	\$37,229	\$37,408
Public master's institutions											
Instruction	\$6,171	\$6,143	\$6,056	\$6,008	\$6,018	\$6,061	\$6,217	\$6,415	\$6,439	\$6,469	\$6,545
Research	\$383	\$361	\$360	\$355	\$380	\$382	\$380	\$384	\$374	\$409	\$400
Student services	\$1,312	\$1,304	\$1,270	\$1,266	\$1,302	\$1,318	\$1,365	\$1,438	\$1,462	\$1,485	\$1,507
Public service	\$652	\$644	\$659	\$637	\$621	\$633	\$624	\$609	\$604	\$590	\$570
Academic support	\$1,561	\$1,449	\$1,418	\$1,412	\$1,437	\$1,448	\$1,475	\$1,522	\$1,558	\$1,547	\$1,534
Institutional support	\$2,060	\$2,014	\$2,013	\$2,013	\$1,932	\$1,970	\$2,023	\$2,092	\$2,063	\$2,071	\$2,038
Operations and maintenance	\$1,468	\$1,490	\$1,472	\$1,462	\$1,576	\$1,655	\$1,663	\$1,713	\$1,695	\$1,398	\$1,400
Net scholarships and fellowships	\$2,127	\$1,155	\$1,028	\$990	\$934	\$892	\$910	\$953	\$1,048	\$1,304	\$1,418
Education and general	\$15,677	\$14,487	\$14,198	\$14,062	\$14,127	\$14,293	\$14,590	\$15,040	\$15,159	\$15,216	\$15,349
Auxiliary enterprises, hospitals, independent and other operations	\$2,493	\$2,390	\$2,355	\$2,378	\$2,402	\$2,408	\$2,494	\$2,730	\$2,828	\$2,950	\$2,993
Total operating expenditures	\$18,170	\$16,877	\$16,553	\$16,440	\$16,529	\$16,701	\$17,085	\$17,769	\$17,987	\$18,166	\$18,342
Grouped expense categories											
Education and related	\$12,030	\$11,880	\$11,713	\$11,648	\$11,752	\$11,926	\$12,223	\$12,650	\$12,695	\$12,475	\$12,554
Research and related	\$599	\$560	\$556	\$551	\$594	\$599	\$600	\$599	\$583	\$621	\$604
Public service and related	\$1,009	\$993	\$1,008	\$984	\$955	\$974	\$957	\$940	\$931	\$897	\$860
Net scholarships and fellowships	\$2,127	\$1,155	\$1,028	\$990	\$934	\$892	\$910	\$953	\$1,048	\$1,304	\$1,418
Education and general	\$15,677	\$14,487	\$14,198	\$14,062	\$14,127	\$14,293	\$14,590	\$15,040	\$15,159	\$15,216	\$15,349
Auxiliary enterprises, hospitals, independent and other operations	\$2,493	\$2,390	\$2,355	\$2,378	\$2,402	\$2,408	\$2,494	\$2,730	\$2,828	\$2,950	\$2,993
Total operating expenditures	\$18,170	\$16,877	\$16,553	\$16,440	\$16,529	\$16,701	\$17,085	\$17,769	\$17,987	\$18,166	\$18,342

Note: Public institutions reported gross scholarships and fellowships prior to 2002, with some institutions reporting gross amounts through 2004.

Data may not sum to totals because expenditures were summed at the institution level before calculating aggregate category averages.

Sources: IPEDS Analytics: Delta Cost Project Database 1987–2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure S2, continued

Average Expenditures per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Public bachelor's institutions											
Instruction	\$5,981	\$5,896	\$5,779	\$5,672	\$5,670	\$5,763	\$6,053	\$6,234	\$6,187	\$6,200	\$6,249
Research	\$403	\$510	\$527	\$504	\$527	\$491	\$483	\$471	\$462	\$459	\$434
Student services	\$1,721	\$1,664	\$1,627	\$1,588	\$1,570	\$1,583	\$1,643	\$1,713	\$1,667	\$1,696	\$1,694
Public service	\$801	\$715	\$721	\$627	\$667	\$685	\$601	\$578	\$552	\$524	\$556
Academic support	\$1,578	\$1,425	\$1,365	\$1,338	\$1,341	\$1,367	\$1,422	\$1,486	\$1,489	\$1,509	\$1,502
Institutional support	\$2,421	\$2,349	\$2,326	\$2,265	\$2,286	\$2,362	\$2,455	\$2,557	\$2,555	\$2,464	\$2,471
Operations and maintenance	\$1,782	\$1,961	\$1,751	\$1,796	\$1,888	\$2,058	\$2,090	\$2,086	\$2,047	\$1,617	\$1,659
Net scholarships and fellowships	\$2,430	\$1,414	\$1,160	\$1,110	\$1,047	\$1,008	\$1,000	\$1,053	\$1,013	\$1,314	\$1,382
Education and general	\$16,863	\$15,637	\$14,973	\$14,657	\$14,709	\$15,045	\$15,516	\$15,971	\$15,772	\$15,597	\$15,766
Auxiliary enterprises, hospitals, independent and other operations	\$2,989	\$3,000	\$2,962	\$2,784	\$2,860	\$2,956	\$3,077	\$3,626	\$3,417	\$3,705	\$3,658
Total operating expenditures	\$19,699	\$18,560	\$17,859	\$17,441	\$17,532	\$17,963	\$18,593	\$19,597	\$19,189	\$19,254	\$19,377
Grouped expense categories											
Education and related	\$12,795	\$12,617	\$12,245	\$12,109	\$12,192	\$12,547	\$13,106	\$13,533	\$13,411	\$13,004	\$13,081
Research and related	\$659	\$879	\$822	\$784	\$831	\$779	\$779	\$754	\$755	\$721	\$689
Public service and related	\$1,365	\$1,191	\$1,199	\$1,038	\$1,100	\$1,153	\$998	\$959	\$914	\$845	\$891
Net scholarships and fellowships	\$2,430	\$1,414	\$1,160	\$1,110	\$1,047	\$1,008	\$1,000	\$1,053	\$1,013	\$1,314	\$1,382
Education and general	\$16,863	\$15,637	\$14,973	\$14,657	\$14,709	\$15,045	\$15,516	\$15,971	\$15,772	\$15,597	\$15,766
Auxiliary enterprises, hospitals, independent and other operations	\$2,989	\$3,000	\$2,962	\$2,784	\$2,860	\$2,956	\$3,077	\$3,626	\$3,417	\$3,705	\$3,658
Total operating expenditures	\$19,699	\$18,560	\$17,859	\$17,441	\$17,532	\$17,963	\$18,593	\$19,597	\$19,189	\$19,254	\$19,377
Public community colleges											
Instruction	\$5,514	\$5,259	\$4,997	\$4,971	\$4,987	\$5,120	\$5,312	\$5,408	\$5,241	\$4,894	\$4,843
Research	\$41	\$66	\$56	\$40	\$54	\$69	\$53	\$44	\$72	\$59	\$64
Student services	\$1,259	\$1,232	\$1,206	\$1,187	\$1,204	\$1,236	\$1,291	\$1,297	\$1,292	\$1,207	\$1,172
Public service	\$447	\$417	\$402	\$374	\$372	\$377	\$361	\$372	\$357	\$327	\$310
Academic support	\$1,113	\$1,058	\$964	\$944	\$952	\$983	\$1,009	\$1,043	\$1,012	\$933	\$919
Institutional support	\$1,910	\$1,819	\$1,717	\$1,762	\$1,741	\$1,804	\$1,875	\$1,947	\$1,889	\$1,714	\$1,716
Operations and maintenance	\$1,191	\$1,189	\$1,136	\$1,119	\$1,141	\$1,228	\$1,263	\$1,278	\$1,247	\$1,061	\$1,029
Net scholarships and fellowships	\$1,710	\$1,401	\$1,242	\$1,152	\$1,058	\$979	\$944	\$1,031	\$1,188	\$1,645	\$1,766
Education and general	\$12,987	\$12,220	\$11,457	\$11,300	\$11,255	\$11,542	\$11,882	\$12,173	\$12,016	\$11,577	\$11,560
Auxiliary enterprises, hospitals, independent and other operations	\$922	\$1,189	\$1,030	\$1,110	\$1,102	\$1,087	\$1,171	\$1,270	\$1,370	\$1,392	\$1,422
Total operating expenditures	\$13,822	\$13,328	\$12,423	\$12,354	\$12,304	\$12,573	\$12,989	\$13,385	\$13,322	\$12,915	\$12,918
Grouped expense categories											
Education and related	\$10,805	\$10,379	\$9,863	\$9,829	\$9,875	\$10,216	\$10,609	\$10,812	\$10,518	\$9,676	\$9,550
Research and related	\$64	\$102	\$87	\$64	\$89	\$111	\$82	\$70	\$109	\$91	\$97
Public service and related	\$703	\$661	\$630	\$592	\$584	\$598	\$571	\$591	\$569	\$510	\$484
Net scholarships and fellowships	\$1,710	\$1,401	\$1,242	\$1,152	\$1,058	\$979	\$944	\$1,031	\$1,188	\$1,645	\$1,766
Education and general	\$12,987	\$12,220	\$11,457	\$11,300	\$11,255	\$11,542	\$11,882	\$12,173	\$12,016	\$11,577	\$11,560
Auxiliary enterprises, hospitals, independent and other operations	\$922	\$1,189	\$1,030	\$1,110	\$1,102	\$1,087	\$1,171	\$1,270	\$1,370	\$1,392	\$1,422
Total operating expenditures	\$13,822	\$13,328	\$12,423	\$12,354	\$12,304	\$12,573	\$12,989	\$13,385	\$13,322	\$12,915	\$12,918

Note: Public institutions reported gross scholarships and fellowships prior to 2002, with some institutions reporting gross amounts through 2004.

Data may not sum to totals because expenditures were summed at the institution level before calculating aggregate category averages.

Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure S2, continued

Average Expenditures per FTE Student, FY 2001–FY 2011 (in 2011 dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Private research institutions											
Instruction	\$16,942	\$17,915	\$18,509	\$18,720	\$19,203	\$19,111	\$19,957	\$20,052	\$20,505	\$20,114	\$20,103
Research	\$9,613	\$10,552	\$11,283	\$11,736	\$12,080	\$11,819	\$11,733	\$11,675	\$11,861	\$12,201	\$12,617
Student services	\$2,706	\$2,859	\$2,868	\$2,902	\$3,029	\$3,165	\$3,284	\$3,346	\$3,493	\$3,489	\$3,511
Public service	\$1,172	\$1,505	\$1,589	\$1,450	\$1,479	\$1,334	\$1,325	\$1,349	\$1,349	\$1,322	\$1,330
Academic support	\$4,690	\$4,848	\$4,895	\$4,920	\$4,998	\$5,199	\$5,376	\$5,631	\$5,815	\$5,681	\$5,756
Institutional support	\$5,837	\$6,027	\$6,206	\$6,346	\$6,433	\$6,527	\$6,750	\$7,093	\$7,212	\$6,943	\$6,829
Operations and maintenance	\$3,027	\$3,210	\$3,127	\$3,536	\$3,676	\$3,979	\$3,880	\$4,102	\$4,340	\$4,045	\$3,735
Net scholarships and fellowships	\$1,301	\$1,360	\$1,439	\$1,558	\$1,383	\$1,241	\$1,284	\$1,307	\$1,425	\$1,418	\$1,363
Education and general	\$42,114	\$44,754	\$46,172	\$47,114	\$48,337	\$48,543	\$49,790	\$50,831	\$52,145	\$51,332	\$51,418
Auxiliary enterprises, hospitals, independent and other operations	\$13,845	\$14,010	\$14,210	\$14,330	\$14,557	\$14,756	\$14,921	\$15,129	\$15,809	\$16,136	\$16,266
Total operating expenditures	\$55,821	\$58,623	\$60,240	\$61,158	\$62,604	\$63,004	\$64,562	\$65,657	\$67,796	\$67,306	\$67,359
Grouped expense categories											
Education and related	\$29,387	\$30,802	\$31,396	\$31,731	\$32,637	\$33,084	\$34,457	\$35,256	\$36,200	\$35,336	\$35,059
Research and related	\$13,852	\$15,006	\$15,885	\$16,438	\$16,873	\$16,852	\$16,672	\$16,947	\$17,349	\$17,674	\$18,102
Public service and related	\$1,724	\$2,154	\$2,279	\$2,085	\$2,135	\$1,948	\$1,958	\$2,005	\$2,005	\$1,946	\$1,959
Net scholarships and fellowships	\$1,301	\$1,360	\$1,439	\$1,558	\$1,383	\$1,241	\$1,284	\$1,307	\$1,425	\$1,418	\$1,363
Education and general	\$42,114	\$44,754	\$46,172	\$47,114	\$48,337	\$48,543	\$49,790	\$50,831	\$52,145	\$51,332	\$51,418
Auxiliary enterprises, hospitals, independent and other operations	\$13,845	\$14,010	\$14,210	\$14,330	\$14,557	\$14,756	\$14,921	\$15,129	\$15,809	\$16,136	\$16,266
Total operating expenditures	\$55,821	\$58,623	\$60,240	\$61,158	\$62,604	\$63,004	\$64,562	\$65,657	\$67,796	\$67,306	\$67,359
Private master's institutions											
Instruction	\$6,707	\$6,930	\$6,974	\$7,053	\$7,100	\$7,142	\$7,290	\$7,245	\$7,425	\$7,377	\$7,439
Research	\$567	\$604	\$631	\$623	\$597	\$522	\$515	\$503	\$481	\$514	\$481
Student services	\$2,387	\$2,466	\$2,498	\$2,549	\$2,601	\$2,676	\$2,771	\$2,792	\$2,879	\$2,897	\$2,967
Public service	\$586	\$754	\$659	\$620	\$558	\$533	\$529	\$524	\$521	\$491	\$503
Academic support	\$1,587	\$1,641	\$1,649	\$1,699	\$1,705	\$1,694	\$1,734	\$1,746	\$1,771	\$1,736	\$1,769
Institutional support	\$3,566	\$3,704	\$3,765	\$3,783	\$3,838	\$3,816	\$3,953	\$3,951	\$4,036	\$3,929	\$3,913
Operations and maintenance	\$1,391	\$1,407	\$1,440	\$1,484	\$1,497	\$1,511	\$1,518	\$1,564	\$1,556	\$1,473	\$1,445
Net scholarships and fellowships	\$1,533	\$1,527	\$1,370	\$1,273	\$1,350	\$985	\$1,112	\$1,005	\$1,017	\$1,122	\$996
Education and general	\$16,414	\$16,947	\$17,045	\$17,053	\$17,197	\$17,183	\$17,624	\$17,642	\$18,011	\$17,896	\$18,003
Auxiliary enterprises, hospitals, independent and other operations	\$3,373	\$3,484	\$3,245	\$3,221	\$3,149	\$3,202	\$3,202	\$3,284	\$3,383	\$3,193	\$3,203
Total operating expenditures	\$19,737	\$20,368	\$20,241	\$20,225	\$20,299	\$20,347	\$20,778	\$20,876	\$21,303	\$21,012	\$21,130
Grouped expense categories											
Education and related	\$15,395	\$15,870	\$16,060	\$16,086	\$16,282	\$16,420	\$16,861	\$16,909	\$17,290	\$17,161	\$17,299
Research and related	\$899	\$937	\$979	\$969	\$948	\$841	\$814	\$809	\$781	\$817	\$772
Public service and related	\$977	\$1,221	\$1,080	\$1,013	\$925	\$892	\$895	\$875	\$874	\$835	\$844
Net scholarships and fellowships	\$1,533	\$1,527	\$1,370	\$1,273	\$1,350	\$985	\$1,112	\$1,005	\$1,017	\$1,122	\$996
Education and general	\$16,414	\$16,947	\$17,045	\$17,053	\$17,197	\$17,183	\$17,624	\$17,642	\$18,011	\$17,896	\$18,003
Auxiliary enterprises, hospitals, independent and other operations	\$3,373	\$3,484	\$3,245	\$3,221	\$3,149	\$3,202	\$3,202	\$3,284	\$3,383	\$3,193	\$3,203
Total operating expenditures	\$19,737	\$20,368	\$20,241	\$20,225	\$20,299	\$20,347	\$20,778	\$20,876	\$21,303	\$21,012	\$21,130
Private bachelor's institutions											
Instruction	\$8,098	\$8,034	\$8,213	\$8,339	\$8,378	\$8,368	\$8,539	\$8,671	\$8,784	\$8,588	\$8,547
Research	\$919	\$975	\$851	\$877	\$899	\$866	\$844	\$809	\$807	\$823	\$807
Student services	\$3,340	\$3,355	\$3,498	\$3,559	\$3,639	\$3,754	\$3,900	\$3,982	\$4,092	\$3,997	\$4,052
Public service	\$687	\$716	\$800	\$707	\$647	\$625	\$643	\$584	\$602	\$598	\$629
Academic support	\$1,996	\$2,007	\$2,014	\$2,058	\$2,056	\$2,084	\$2,132	\$2,148	\$2,205	\$2,150	\$2,120
Institutional support	\$5,360	\$5,154	\$5,093	\$5,139	\$5,068	\$5,171	\$5,292	\$5,366	\$5,421	\$5,208	\$5,152
Operations and maintenance	\$2,012	\$2,008	\$2,013	\$2,211	\$2,239	\$2,265	\$2,344	\$2,367	\$2,352	\$2,167	\$2,201
Net scholarships and fellowships	\$3,424	\$3,065	\$2,785	\$2,832	\$2,832	\$1,779	\$1,659	\$1,622	\$1,818	\$1,742	\$1,527
Education and general	\$22,356	\$21,945	\$22,073	\$22,198	\$22,197	\$22,112	\$22,614	\$22,924	\$23,307	\$22,760	\$22,705
Auxiliary enterprises, hospitals, independent and other operations	\$5,634	\$5,424	\$5,252	\$5,318	\$5,268	\$5,446	\$5,465	\$5,504	\$5,409	\$5,173	\$5,138
Total operating expenditures	\$27,916	\$27,309	\$27,245	\$27,435	\$27,363	\$27,451	\$27,972	\$28,332	\$28,634	\$27,877	\$27,798
Grouped expense categories											
Education and related	\$20,450	\$20,190	\$20,443	\$20,527	\$20,654	\$20,912	\$21,484	\$21,882	\$22,232	\$21,707	\$21,677
Research and related	\$1,489	\$1,555	\$1,412	\$1,469	\$1,491	\$1,443	\$1,428	\$1,360	\$1,366	\$1,379	\$1,383
Public service and related	\$1,235	\$1,284	\$1,382	\$1,202	\$1,096	\$1,055	\$1,075	\$974	\$1,015	\$1,001	\$1,066
Net scholarships and fellowships	\$3,424	\$3,065	\$2,785	\$2,832	\$2,832	\$1,779	\$1,659	\$1,622	\$1,818	\$1,742	\$1,527
Education and general	\$22,356	\$21,945	\$22,073	\$22,198	\$22,197	\$22,112	\$22,614	\$22,924	\$23,307	\$22,760	\$22,705
Auxiliary enterprises, hospitals, independent and other operations	\$5,634	\$5,424	\$5,252	\$5,318	\$5,268	\$5,446	\$5,465	\$5,504	\$5,409	\$5,173	\$5,138
Total operating expenditures	\$27,916	\$27,309	\$27,245	\$27,435	\$27,363	\$27,451	\$27,972	\$28,332	\$28,634	\$27,877	\$27,798

Note: Public institutions reported gross scholarships and fellowships prior to 2002, with some institutions reporting gross amounts through 2004.

Data may not sum to totals because expenditures were summed at the institution level before calculating aggregate category averages.

Sources: IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 and Finance FY2011 surveys (11-year matched set).

Figure S3

Fall FTE Enrollment, FY 2001–FY 2011

	2001	2006	2010	2011	10-year change	1-year change
Public research	3,113,987	3,463,496	3,756,635	3,842,189	23.4%	2.3%
Public master's	1,732,573	1,957,235	2,140,314	2,174,590	25.5%	1.6%
Public bachelor's	207,703	240,899	273,489	286,506	37.9%	4.8%
Community colleges	3,017,667	3,513,551	4,273,255	4,420,199	46.5%	3.4%
Private research	838,742	933,109	992,470	1,017,831	21.4%	2.6%
Private master's	862,639	1,021,111	1,117,879	1,152,952	33.7%	3.1%
Private bachelor's	576,248	631,908	670,656	683,891	18.7%	2.0%

Sources. IPEDS Analytics: Delta Cost Project Database 1987-2010, IPEDS Fall Enrollment 2010 (11-year matched set).

About the Delta Cost Project

The Delta Cost Project at American Institutes for Research provides data and tools to help higher education administrators and policymakers improve college affordability by controlling institutional costs and increasing productivity. The work is animated by the belief that college costs can be contained without sacrificing access or educational quality through better use of data to inform strategic decision making. For more information about the Delta Cost Project, visit www.deltacostproject.org.

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