

# Analysis Brief

Trends in Higher Education Series

## Trends in Public Higher Education: Enrollment, Prices, Student Aid, Revenues, and Expenditures

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### Summary Notes

In fall 2009, three-quarters of all undergraduate students (and 70% of full-time undergraduates) were enrolled in public institutions (Table 1). The central role of public institutions in educating the country's future labor force makes accurate information about prices — both published and net of grant aid — funding sources, and costs of operation critical. This analysis brief summarizes key data about public four-year and two-year institutions, offering an overview of the issues and circumstances facing the sector and its students.

### Enrollments

As total postsecondary enrollment increased from 15.3 million to 20.4 million students between fall 2000 and fall 2009, the total number of students in both the public two-year sector and the public four-year sector increased by about 25%, with the number of fall full-time public two-year college students growing by about 50%, from 2.0 million to 2.9 million (Table 2).

Although their percentage of the student body has been declining slowly over the past 20 years, graduate students constituted about 18% of the total enrollments at public four-year institutions in fall 2009 (Figure 1). There has been a modest upward trend in the percentage of students in this sector who are full-time undergraduates. Among undergraduates, 78% were full-time in fall 2009, compared with 75% in fall 1990.

Public two-year colleges enroll only undergraduate students, including a small number of students in non-degree-granting institutions. The percentage of students in

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**Table 1:** Percentage Distribution of Enrollment of Full-Time Undergraduate Students and All Undergraduate Students in Degree-Granting Institutions by Sector, Fall 2009

Sector	Full-Time Undergraduate Students	All Undergraduate Students
<b>Public</b>		
Four-Year	44%	36%
Two-Year	26%	40%
<b>Private Nonprofit</b>		
Four-Year	19%	15%
<b>For-Profit</b>		
Four-Year	8%	7%
Two-Year	3%	2%

Note: The private nonprofit two-year sector, which is not included in the table, enrolled 0.2% of full-time undergraduate students and 0.2% of all undergraduate students.  
Source: The College Board, *Trends in College Pricing 2011*, Figure 18.

**Table 2:** Total Fall Enrollment in Degree-Granting Institutions by Sector and Attendance Status, 2000 Through 2009, Selected Years

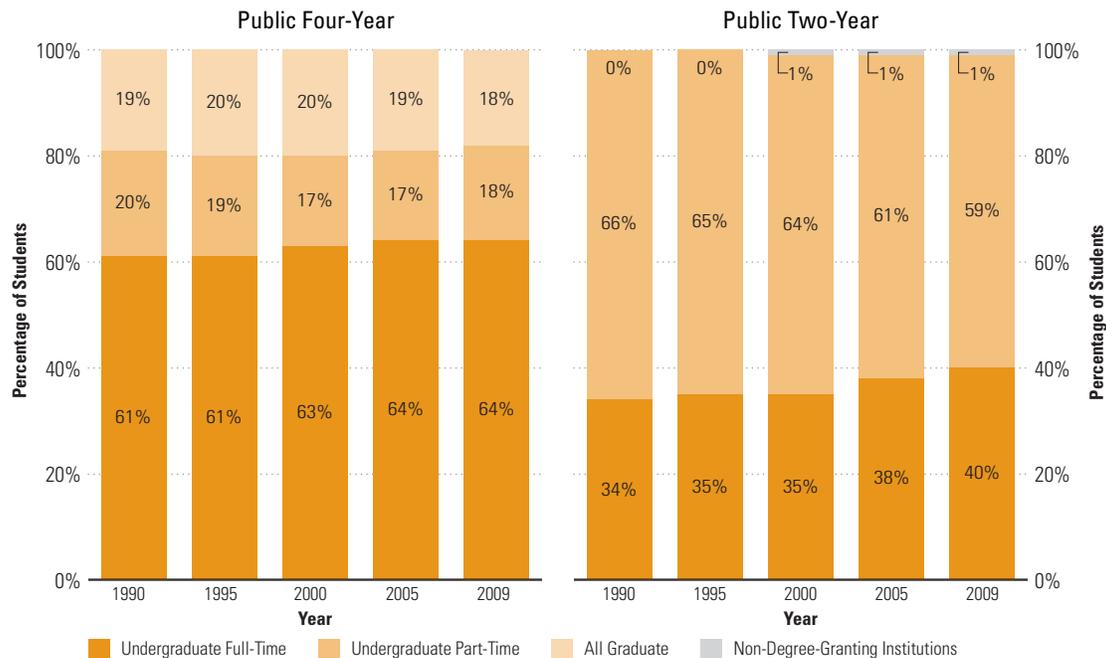
	2000	2003	2006	2009
<b>Public Two-Year</b>				
Full-Time	2.0	2.4	2.4	2.9
Part-Time	3.7	3.8	3.8	4.2
<b>Public Four-Year</b>				
Full-Time	4.4	4.9	5.1	5.6
Part-Time	1.7	1.8	1.9	2.1
Other	3.6	4.1	4.6	5.6
<b>Total</b>	<b>15.3</b>	<b>16.9</b>	<b>17.8</b>	<b>20.4</b>

Note: Components may not sum to totals because of rounding. Total enrollment includes both undergraduate and graduate students. The "Other" category includes full-time and part-time students at private nonprofit and private for-profit institutions.  
Sources: National Center for Education Statistics (NCES), *Digest of Education Statistics 2010*, Table 204; calculations by the authors.

**Table 3:** Distribution of Full-Time Undergraduate Students in Public Institutions by Dependency Status and Dependent Students' Family Income, 2007-08

	Public Two-Year	Public Four-Year
Independent	57%	31%
Dependent	43%	69%
<b>Family Income</b>		
Less than \$32,500	27%	18%
\$32,500–\$59,999	28%	19%
\$60,000–\$99,999	27%	30%
\$100,000 or more	18%	33%

Source: NCES, *National Postsecondary Student Aid Study (NPSAS)*, 2008.

**Figure 1:** Percentage Distribution of Students at Public Four-Year and Public Two-Year Institutions

Source: The College Board, *Trends in College Pricing 2011*, Figure 17.

the sector enrolled full-time increased from 34% in 1990 to 40% in 2009 (Figure 1).

In 2007-08, 57% of the students at public two-year colleges, where 23% of the students were over the age of 30, were independent. At public four-year colleges, where 12% were over the age of 30, 31% were independent. Among dependent students, 27% of those enrolled at two-year colleges were from families with incomes below \$32,500 and 18% were from families with incomes exceeding \$100,000. At public four-year colleges, 18% of dependent students came from the lowest-income bracket and 33% came from the highest-income group (Table 3).

### Degrees Awarded

In 2008-09, three-quarters of all associate degrees, two-thirds of all bachelor's degrees, and almost half of all graduate degrees were awarded by public colleges and universities (Table 4).

### Published Prices

In 2011-12, the average published price of tuition and fees for in-state students enrolled in public four-year colleges and universities was \$8,244. Out-of-state students faced an average price of \$20,770. Tuition is much lower at public two-year colleges, where the average published price was \$2,963 (Table 5).

In addition to tuition and fees, students must pay for on-campus room and board or for off-campus housing and food, and

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**Table 4:** Percentage Distribution of Degrees Granted by Type of Degree and Sector, 2008-09

	Public	Private Nonprofit	For-Profit
Graduate	47%	45%	8%
Bachelor's	64%	31%	5%
Associate	76%	6%	18%

Source: The College Board, *Trends in College Pricing 2011*, Figure 19.

**Table 5:** Average Estimated Undergraduate Budgets, 2011-12 (Enrollment-Weighted)

	Tuition and Fees	Room and Board	Books and Supplies	Transportation	Other Expenses	Total Expenses
<b>Public Four-Year</b>						
In-State On Campus	\$8,244	\$8,887	\$1,168	\$1,082	\$2,066	\$21,447
Out-of-State On Campus	\$20,770	\$8,887	\$1,168	\$1,082	\$2,066	\$33,973
<b>Public Two-Year (Commuter)</b>	\$2,963	\$7,408	\$1,182	\$1,606	\$2,127	\$15,286

Note: Average total expenses for the public two-year sector include room and board costs for commuter students, which are average estimated living expenses for students living off campus but not with parents. Expense categories are based on institutional budgets for students as reported by colleges and universities in the *Annual Survey of Colleges*. They do not necessarily reflect actual student expenditures.

Source: The College Board, *Trends in College Pricing 2011*, Figure 1.

for books and supplies, transportation, and other expenses. They would incur many of these expenses even if they were not in school. But in order to succeed academically, most students must forgo a significant portion of the earnings that would have covered these expenses. Without taking financial aid into consideration, tuition and fees in 2011-12 accounted for only 38% of the total student expense budget for in-state students enrolled in public four-year institutions, and 19% of the total for full-time community college students not living at home with their parents.

Average prices conceal considerable variation across institutions. Tuition is much higher in some states than in others. For example, in 2011-12, average tuition

and fees for four-year public institutions ranged from \$4,125 in Wyoming to \$13,705 in New Hampshire (not shown).

### Rising Prices

Published prices at public four-year colleges and universities have risen rapidly in recent years. On average, over the decade from 2001-02 to 2011-12, in-state tuition and fees increased at an annual rate of 5.6% beyond general inflation, a more rapid rate of growth than in either of the two preceding decades. In-state tuition and fees in the public two-year sector rose rapidly in the 1980s, were stable in the 1990s, and rose at an average annual rate of 3.8% beyond general inflation in the most recent decade (Table 6).

**Table 6:** Average Annual Percentage Increase in Inflation-Adjusted Published Prices by Decade, 1981-82 to 2011-12

	Public Four-Year In-State		Public Two-Year In-State
	Tuition and Fees	Tuition and Fees and Room and Board	Tuition and Fees
1981-82 to 1991-92	4.5%	2.5%	6.1%
1991-92 to 2001-02	3.2%	2.4%	0.5%
2001-02 to 2011-12	5.6%	4.1%	3.8%

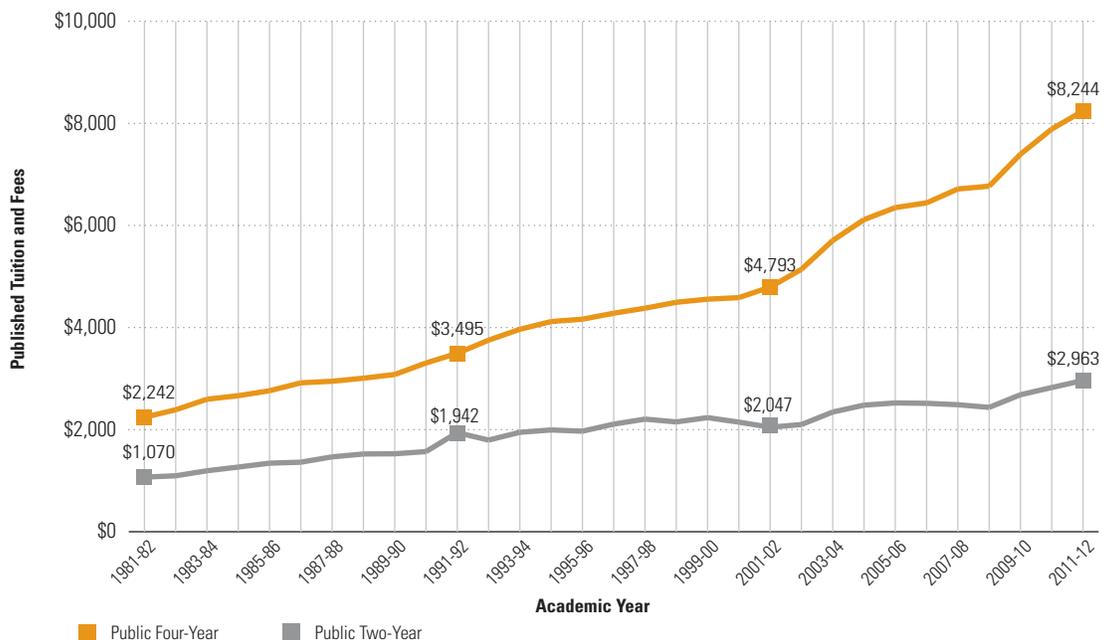
Source: The College Board, *Trends in College Pricing 2011*, Figure 4.

### Net Prices

The amount students actually pay for tuition and fees is, on average, much lower than the published prices. Grant aid from federal and state governments, from employers and other private sources, and in the form of discounts from institutions lowers the net price for many students. Some students and parents also receive federal education tax credits and

deductions, so they pay less in income taxes than they would if they had the same incomes but were not enrolled in school.

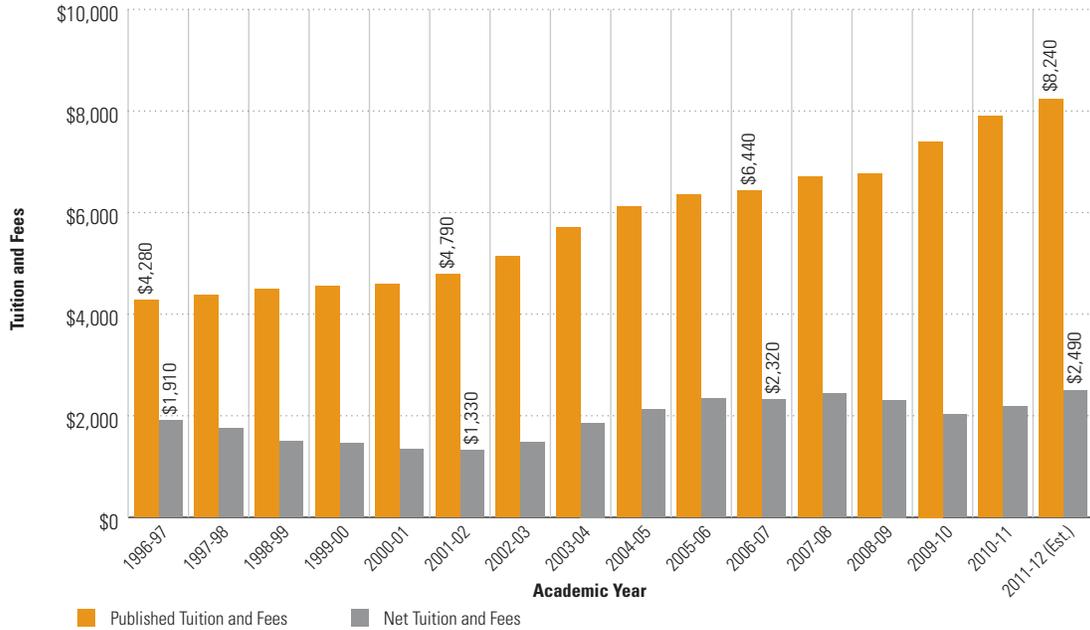
In 2011-12, full-time undergraduates enrolled in public four-year institutions received an estimated average of about \$5,750 in grant aid from all sources and federal education tax credits and deductions. They paid an average of about

**Figure 2:** Enrollment-Weighted Average In-State Tuition and Fees at Public Two-Year and Public Four-Year Institutions, in Constant 2011 Dollars, 1981-82 to 2011-12

Source: The College Board, *Trends in College Pricing 2011*, online Table 4.

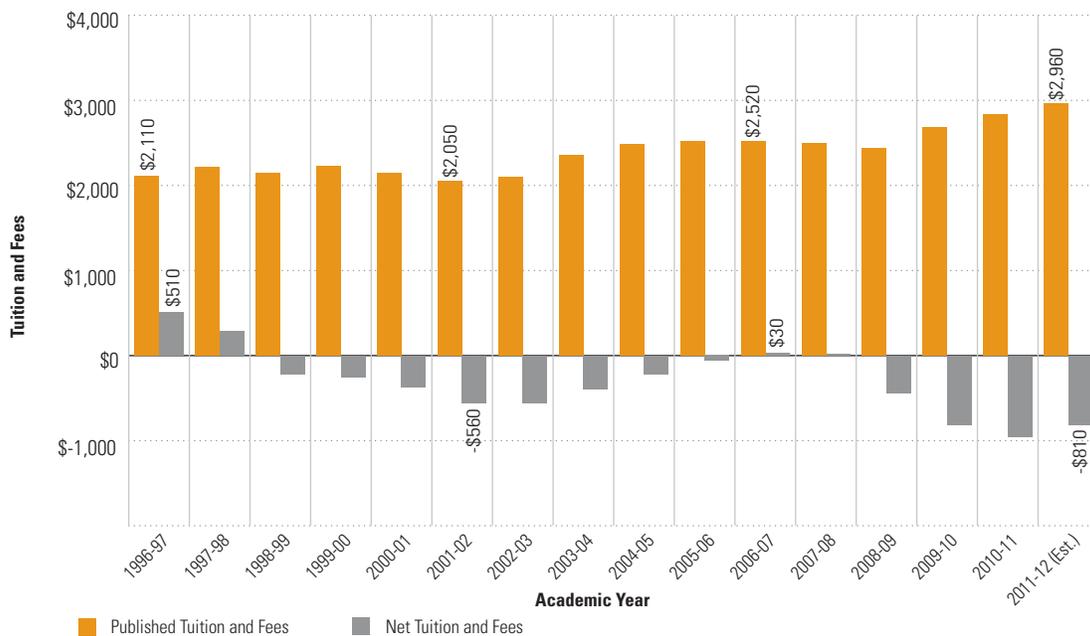
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**Figure 3:** Average Public Four-Year Published In-State Tuition and Fees and Net Tuition and Fees, 1996-97 to 2011-12



Source: The College Board, *Trends in College Pricing 2011*, online Table 7.

**Figure 4:** Average Public Two-Year Published In-State Tuition and Fees and Net Tuition and Fees, 1996-97 to 2011-12



Source: The College Board, *Trends in College Pricing 2011*, online Table 7.

\$2,490 in net tuition and fees. Average net tuition and fees in this sector actually declined in constant dollars from 2006-07 through 2009-10. While the published price rose 28% in inflation-adjusted dollars between 2006-07 and 2011-12, the amount students actually paid increased by only an estimated 7% (Figure 3).

For full-time students enrolled in public two-year colleges, on average, grant aid and tax benefits covered tuition and fee charges in 2011-12, leaving an estimated \$810 to help students pay for books and supplies and living costs.

Because much of the aid on which students rely is need-based, with funding decreasing as incomes rise, net prices are lowest for the lowest-income students and rise with income. The lowest-income dependent students enrolled in both public two-year and public four-year institutions in 2007-08 (the latest year for which data are available by income levels) received more than enough grant aid on average to cover tuition and fees.

Among full-time public two-year college students, average net tuition and fees (without considering tax credits and deductions) ranged from \$0 for those from families with incomes below \$32,500, who received an average of \$3,130 in grant aid, to \$1,570 for those from families with incomes of \$100,000 or more, who received an average of \$340 in grant aid. Independent students received \$1,910 per student in grant aid and paid no net tuition and fees on average (Table 7).

Among full-time in-state public four-year college students, average net tuition and fees (without considering tax credits and deductions) ranged from \$0 for those from families with incomes below \$32,500, who received an average of \$7,050 in grant aid, to \$4,330 for those from families with incomes of \$100,000 or more, who received an average of \$1,740 in grant aid. Independent in-state students received \$3,280 per student in grant aid and paid \$1,110 in net tuition and fees, on average (Table 8).

**Table 7:** Net Prices for Full-Time Students at Public Two-Year Colleges by Dependency Status and Family Income, 2007-08

	Dependent Students' Family Income				Independent Students
	Lowest	Lower-Middle	Upper-Middle	Highest	
Net Tuition and Fees	\$0	\$800	\$1,510	\$1,570	\$0
Net Room and Board and Other Costs	\$6,480	\$7,630	\$8,000	\$7,890	\$8,240
Total Grants	\$3,130	\$1,190	\$510	\$340	\$1,910

**Note:** Income categories are: lowest — less than \$32,500; lower-middle — \$32,500–\$59,999; upper-middle — \$60,000–\$99,999; highest — \$100,000 or higher. Grants are from all sources, including federal and state governments, institutions, and private sources. "Other costs" include books and supplies, transportation, and basic living costs as reported by institutions in student budget calculations.  
**Sources:** NCES, NPSAS, 2008; calculations by the authors.

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**Table 8:** Net Prices for Full-Time Students at Public Four-Year Colleges and Universities, by State Residency, Dependency Status, and Family Income, 2007-08

	In-State Dependent Students' Family Income				In-State Independent Students	Out-of-State Dependent Students' Family Income				Out-of-State Independent Students
	Lowest	Lower-Middle	Upper-Middle	Highest		Lowest	Lower-Middle	Upper-Middle	Highest	
Net Tuition and Fees	\$0	\$1,420	\$3,860	\$4,330	\$1,110	\$4,580	\$8,510	\$10,740	\$12,890	\$7,200
Net Room and Board and Other Costs	\$9,030	\$10,820	\$11,000	\$11,260	\$10,690	\$11,160	\$10,650	\$10,750	\$11,400	\$10,960
Total Grants	\$7,050	\$4,310	\$2,140	\$1,740	\$3,280	\$7,880	\$4,840	\$3,200	\$2,260	\$2,960

**Note:** Income categories are: lowest — less than \$32,500; lower-middle — \$32,500–\$59,999; upper-middle — \$60,000–\$99,999; highest — \$100,000 or higher. Grants are from all sources, including federal and state governments, institutions, and private sources. “Other costs” include books and supplies, transportation, and basic living costs as reported by institutions in student budget calculations.  
**Sources:** NCES, NPSAS, 2008; calculations by the authors.

**Table 9:** Sources of Grant Aid for Full-Time Students Enrolled in Public Two-Year and Four-Year Institutions, 2010-11 (Estimated)

	Public Four-Year	Public Two-Year
Pell Grants	34%	69%
Other Federal Grants	11%	12%
State Grants	19%	9%
Institutional Grants	29%	6%
Employer and Private Grants	7%	4%

**Sources:** The College Board, *Trends in Student Aid 2011*; NCES, NPSAS, 2008; calculations by the authors.

### Sources of Student Aid

In 2010-11, full-time undergraduates at public four-year colleges and universities received about 45% of their grant aid from the federal government and 19% from state governments (Table 9). In contrast, those enrolled at public two-year colleges received 81% of their grant aid from the federal government and only 9% from the states. Public four-year colleges provide much more institutional grant aid to their students than public two-year colleges. In 2010-11, public four-year institutions provided 29% of the grant aid received by full-time students in this sector.

### Student Debt

Despite the growth in financial aid available and the relatively slow growth in net tuition and fees for students receiving that aid, a combination of the rising prices of room, board, and other expenses and stagnant or declining household incomes has resulted in increased student borrowing.

Among 1999-2000 bachelor’s degree recipients who graduated from the institution at which they began their studies, 54% had borrowed some combination of federal and nonfederal

**Table 10:** Average Total Debt Levels of Bachelor's Degree Recipients from Public Four-Year Institutions, in Constant 2010 Dollars, 1999-2000 to 2009-10

	Average Debt per Borrower	Average Debt per Bachelor's Degree Recipient	Percentage Who Borrowed
1999-00	\$19,800	\$10,700	54%
2000-01	\$19,400	\$10,100	52%
2001-02	\$19,500	\$10,100	52%
2002-03	\$19,800	\$10,500	53%
2003-04	\$20,000	\$10,800	54%
2004-05	\$20,500	\$11,200	55%
2005-06	\$20,800	\$11,500	55%
2006-07	\$20,500	\$11,300	55%
2007-08	\$20,500	\$11,300	55%
2008-09	\$20,100	\$11,100	55%
2009-10	\$22,000	\$12,300	56%

Note: Debt figures include both federal loans and loans from nonfederal sources that have been reported to the institutions. Only students who graduated from the institution at which they began their studies as first-time students are included.

Source: The College Board, *Trends in Student Aid 2011*, Figure 10a, based on data reported in the College Board's *Annual Survey of Colleges*.

education loans (Table 10). The average total debt of these borrowers was \$19,800 in 2010 dollars. When averaged across all graduates, including those who did not borrow, average debt per student was \$10,700. A decade later, in 2009-10, the percentage of students graduating with debt had increased only slightly, to 56%.

Average debt per borrower was \$22,000 in 2009-10, an increase of 11% (\$2,200 in 2010 dollars) over 10 years. Average debt per graduate was \$12,300 in 2009-10, an increase of 15% (\$1,600 in 2010 dollars) over 10 years.

**Table 11:** Distribution of Cumulative Debt Among 2009 Bachelor's Degree Completers, by Last Institutional Sector Attended

	Sector	Cumulative Debt Level					Students (in 000s)
		\$0	First Quartile (\$1–\$9,882)	Second Quartile (\$9,883–\$17,288)	Third Quartile (\$17,289–\$27,978)	Fourth Quartile (>\$27,978)	
Dependent	Public Four-Year	40%	13%	16%	17%	14%	720
	Total Four-Year	37%	11%	16%	18%	18%	1,082
Independent	Public Four-Year	32%	11%	12%	18%	27%	27
	Total Four-Year	25%	8%	10%	13%	44%	58
All	Total Four-Year	36%	11%	15%	18%	19%	1,140

Note: Debt figures include both federal loans and loans from nonfederal sources. Included here are students whose last institution attended was a four-year college or university.

Source: The College Board, *Trends in Student Aid 2011*, Figure 9a, based on data reported in *Beginning Postsecondary Students: 2009*.

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**Table 12:** State Appropriations for Higher Education: Total Appropriations in Constant 2010 Dollars (in Billions), Appropriations per Public FTE Student in Constant 2010 Dollars, and Public FTE Enrollment (in Millions), 1980-81 to 2010-11, Selected Years

Academic Year	Appropriations per FTE	Appropriations per FTE Excluding Federal Stimulus	Appropriations (Billions)	Appropriations Excluding Federal Stimulus (Billions)	Public FTE Enrollment (Millions)
1980-81	\$8,300		\$55.3		6.6
1985-86	\$9,300		\$61.8		6.7
1990-91	\$8,800		\$66.6		7.6
1995-96	\$8,200		\$63.5		7.8
2000-01	\$9,300		\$76.5		8.3
2005-06	\$8,400		\$78.4		9.4
2010-11	\$7,200	\$6,900	\$78.9	\$76.1	11.0

Source: The College Board, *Trends in College Pricing 2011*, Figure 10b.

Average debt levels conceal considerable variation in borrowing patterns. Typical college graduates are able to repay average debts with little difficulty, but some students borrow much more than the average and they are more likely to struggle to meet their repayment obligations. In 2009, among dependent bachelor's degree recipients, 40% of those from public institutions and 37% overall had no education loans, while 14% from public institutions and 18% overall graduated with more than \$28,000 in debt (Table 11). In contrast, 27% of independent students from public institutions and 44% from all sectors combined owed this much.

The majority of public two-year college graduates do not graduate with education debt. In 2007-08, 62% of associate degree recipients and 70% of certificate recipients from this sector had no debt. Only 5% of associate degree recipients and 2% of certificate recipients borrowed \$20,000 or more (not shown). (*NPSAS*, 2008)

### Revenue Sources

Appropriations from state and local tax revenues have historically been a key revenue source for public colleges and universities, allowing them to charge tuition far below the actual cost of educating students. Although total appropriations have grown in constant dollars over time, the growth has not been adequate to keep pace with rising enrollments. Appropriations per full-time equivalent student were about \$8,300 (in 2010 dollars) in 1980-81, \$8,800 in 1990-91, \$9,300 in 2000-01, and \$7,200 in 2010-11 (Table 12). If the federal government had not supplemented state funds for institutions in 2010-11, that figure would have been only \$6,900.

In addition to state and local appropriations, public colleges and universities rely on tuition revenues, as well as federal appropriations and government grants and contracts. Tuition revenues constitute an increasing proportion of total revenues at all types of public institutions.

**Table 13:** Institutional Revenues per FTE Student in Constant 2009 Dollars at Public Institutions, by Revenue Source, 1998-99 to 2008-09, Selected Years

	Net Tuition and Fee Revenue	State and Local Appropriations	Federal Appropriations and Federal, State, and Local Grants and Contracts
<b>Public Doctoral</b>			
1998-99	\$5,593 (25%)	\$10,896 (49%)	\$5,642 (25%)
2003-04	\$6,921 (28%)	\$9,415 (38%)	\$8,665 (35%)
2008-09	\$8,438 (32%)	\$9,017 (34%)	\$9,105 (34%)
<b>Public Master's</b>			
1998-99	\$4,217 (33%)	\$7,223 (56%)	\$1,371 (11%)
2003-04	\$5,197 (38%)	\$6,417 (47%)	\$1,963 (14%)
2008-09	\$6,080 (43%)	\$6,072 (43%)	\$1,982 (14%)
<b>Public Bachelor's</b>			
1998-99	\$3,673 (31%)	\$6,593 (56%)	\$1,534 (13%)
2003-04	\$4,529 (37%)	\$5,672 (47%)	\$1,903 (16%)
2008-09	\$5,597 (41%)	\$5,632 (42%)	\$2,259 (17%)
<b>Public Two-Year</b>			
1998-99	\$2,197 (22%)	\$6,338 (64%)	\$1,351 (14%)
2003-04	\$2,586 (26%)	\$5,894 (58%)	\$1,627 (16%)
2008-09	\$2,928 (27%)	\$6,109 (57%)	\$1,626 (15%)

**Note:** The institutional averages reported here are weighted by FTE enrollments. The averages reported by the Delta Cost Project are unweighted averages across institutions.

**Source:** The College Board, *Trends in College Pricing 2011*, Figure 12a.

Net tuition revenues are most important at public master's institutions, where they increased from 33% to 43% of total revenues between 1998-99 and 2008-09 (Table 13). This revenue source constituted only 27% of the total at public two-year colleges in 2008-09, an increase from 22% a decade earlier.

State and local appropriations are the most important at public two-year colleges, where they declined from 64% to 57% of total revenues between 1998-99 and 2008-09. This revenue source constituted only 34% of the total at public doctoral institutions in 2008-09, a decline from 49% a decade earlier.

Federal, state, and local grants and contracts, combined with federal appropriations, ranged from 14% of total revenues at public master's institutions to 34% of the total at public doctoral institutions in 2008-09.

The growth in net tuition revenues per student corresponds to an increase in the percentage of total educational expenditures covered by student payments (which include financial aid from noninstitutional sources). Nonetheless, in 2008-09, over half of the cost of educating students at all types of public institutions came in the form of subsidies from other sources — primarily state

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**Table 14:** Net Tuition Revenue per Full-Time Equivalent (FTE) Student as a Percentage of Total Educational Expenses, Subsidy per FTE Student, and Educational Expenditures per FTE Student, Selected Years

Carnegie Classification	Net Tuition Revenue per Full-Time Equivalent (FTE) Student as a Percentage of Total Educational Expenses			Subsidy per FTE Student, 2008-09	Educational Expenditures per FTE Student, 2008-09
	2002	2005	2008	2008	2008
Public Doctoral	39%	48%	48%	\$8,290	\$16,730
Public Master's	36%	46%	46%	\$6,290	\$12,370
Public Bachelor's	32%	41%	42%	\$6,240	\$11,840
Public Two-Year	24%	29%	29%	\$6,400	\$9,330

**Note:** Net tuition revenue is the amount of tuition revenue an institution takes in from students (including fees) net of all institutional grant aid provided to students.  
**Source:** Delta Cost Project.

**Table 15:** Percentage Changes in Inflation-Adjusted Average Faculty Salary, Average Total Compensation, and Average Published Tuition and Fees, by Sector, 1989-90 to 1999-2000 and 1999-2000 to 2009-10

	Salary 1989-90 to 1999-2000	Salary 1999-2000 to 2009-10	Total Compensation 1989-90 to 1999-2000	Total Compensation 1999-2000 to 2009-10
Public Two-Year	-1%	-1%	9%	4%
Public Four-Year	2%	1%	3%	4%

**Source:** The College Board, *Trends in College Pricing 2011*, Figure 22a.

**Table 16:** Number of Full-Time Equivalent (FTE) Staff per 100 FTE Students in Degree-Granting Public Colleges and Universities, 1976, 1999, and 2009

	1976	1999	2009
Instructional	6.6	7.3	6.8
Other	10.6	12.0	10.6

**Source:** The College Board, *Trends in College Pricing 2011*, Figure 22b.

and local appropriations. Net tuition revenues equaled 48% of total educational expenditures at public doctoral institutions in 2008, but only 29% of those expenditures at public two-year colleges (Table 14). However, because educational expenditures per student are highest at doctoral institutions, where 24% of students are graduate students, the per-FTE-student subsidy ranged from \$6,240 at public

bachelor's institutions to \$8,290 at doctoral institutions.

### **Institutional Expenditures**

The decline in the percentage of expenditures covered by state and local appropriations is explained by a combination of the decline in appropriations per student described above and increases in per-student

**Table 17:** Average Salaries of Full-Time Faculty on 9–10 Month Contracts by Carnegie Classification (and Percentage of Faculty in Each Sector), in Constant 2008-09 Dollars, 1979-80 to 2008-09, Selected Years

	Percentage of Faculty, 2008-09	1979-80	1989-90	1999-2000	2008-09
Private Doctoral	12%	\$ 69,100	\$ 84,500	\$ 94,200	\$ 97,700
Public Doctoral	30%	\$ 64,700	\$ 75,300	\$ 79,600	\$ 81,500
Private Master's	11%	\$ 54,500	\$ 60,600	\$ 64,600	\$ 67,200
Public Master's	17%	\$ 59,900	\$ 67,900	\$ 66,700	\$ 66,700
Private Other Four-Year	7%	\$ 47,600	\$ 55,300	\$ 60,400	\$ 65,500
Public Other Four-Year	3%	\$ 53,500	\$ 60,100	\$ 60,900	\$ 62,500
Public Two-Year	20%	\$ 56,600	\$ 58,200	\$ 61,200	\$ 61,400
Public/Private Doctoral		94%	89%	85%	83%
Public/Private Master's		110%	112%	103%	99%
Public/Private Other Four-Year		112%	109%	101%	95%

Source: The College Board, *Trends in College Pricing 2011*, online Figure 22f.

**Table 18:** Educational Expenditures per Full-Time Equivalent Student in Constant 2008 Dollars, by Carnegie Classification, 2002 Through 2008

	2002	2003	2004	2005	2006	2007	2008	Average Annual Rate of Growth
Public Doctoral	\$14,500	\$14,220	\$14,060	\$14,320	\$14,780	\$15,170	\$15,620	1%
Public Master's	\$11,590	\$11,390	\$11,250	\$11,300	\$11,550	\$11,840	\$12,190	1%
Public Bachelor's	\$12,090	\$11,880	\$11,770	\$11,770	\$12,100	\$12,490	\$12,930	1%
Public Two-Year	\$10,090	\$9,600	\$9,500	\$9,550	\$9,910	\$10,250	\$10,400	1%

Source: Delta Cost Project.

expenditures. However, these increases have been much smaller than the increases in tuition and fees.

Compensation for faculty and staff constitutes a large percentage of the educational expenditures of colleges and universities, but salaries have risen slowly, if at all. Average faculty salaries at public two-year colleges declined by 1% in inflation-adjusted dollars from 1989-90 to 1999-2000 and again the following decade (Table 15). At public four-year institutions, average

faculty salaries increased by 2% in constant dollars over the decade from 1989-90 to 1999-2000 and by 1% the following decade. Because of the rising prices of health insurance, average total compensation, including both salary and benefits, grew more rapidly.

Total expenditures on personnel depend not only on average salaries but also on the number of faculty and staff per student. While the numbers of both instructional and other staff per student

increased between 1976 and 1999, by 2009 they had declined to approximately their level 23 years earlier (Table 16).

The slow (or negative) growth in salaries has created a large gap between faculty salaries in the public sector and those at similar private colleges and universities. In 1979-80, the average salary for full-time faculty at public doctoral institutions was 94% of the average at private doctoral institutions (Table 17). By 2008-09, that ratio had fallen to 83%. Salaries at other types of public four-year institutions were higher than those in the private sector in 1979-80, but slightly lower in 2008-09.

Total educational expenditures include all spending for instruction and student services, plus a portion of spending for academic and institutional support and for operations and maintenance of buildings. This measure includes spending on both undergraduate and graduate students and is an estimate of the full cost of educating students. Expenditures on research, public service, hospitals, and auxiliary enterprises such as dormitories are not included.

Educational expenditures per FTE student are about 50% higher in public doctoral institutions, where 24% of the students are graduate students, than at public two-year colleges (Table 18). Between 2001-02 and 2007-08, educational spending grew at an average annual rate of 1% per year beyond general inflation at all types of public institutions.

**About Trends in Higher Education**

The Trends series helps answer critical questions on college affordability. Are college prices rising at an unprecedented rate? How much does student financial aid help students cover the costs of attending college? The data provided in Trends and the accompanying commentary can inform policymakers, researchers, student advocates, and others in their analyses of these issues.

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