A Primer on College Cost

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No start of an academic year goes by without renewed anxiety about the ever-increasing price of a college education. Although parents, students, and policymakers have voiced their concerns for years about colleges raising tuition and fees at rates far in excess of inflation, the global pandemic brought about by COVID-19 has exacerbated those concerns.

A survey of college students conducted early in 2021 found that 71% of respondents were worried about being able to cover the costs of college for the spring term and upcoming 2021–22 academic year.[1] In response, students took on additional work, moved home, or took on more debt, and parents tapped into retirement and other savings, took on additional work, or took out parent student loans.

For the 2021–22 school year, the average published tuition and fees for in-state undergraduates at public four-year colleges was $10,740, up 1.6% from the 2020–21 school year. For private non-profit four-year colleges, the average published tuition and fees was $38,070, up 2.1% from the previous year. And for public two-year colleges, the average published tuition and fees was $3,800, up 1.3% from the previous year.[2] Over the last decade, published tuition and fees at four-year public colleges increased 9%; at private non-profit four-year colleges, they increased 14%; and at public two-year colleges, they rose 7%.[3]

As the price of college has risen, so has the number of students who need financial assistance. Between 2008 and 2020, the number of Pell Grant recipients has risen from 5.5 million to 6.2 million, though down from a peak of 9.4 million in 2011. Additionally, in the last decade, the federal government's investment in student aid through federal grants, loans, work-study, and tax credits and deductions, adjusted for inflation, has decreased by 36% from $208.9 billion in 2010–11 to $134.3 billion in 2020–21.[4] These dramatic changes have led many to conclude that the current system of higher education costs and spending has grown unsustainable for students, parents, and the American taxpayer.

The Price of College

When students and parents think about college, one of the first questions they ask is, "How much is it going to cost?" The answer to this seemingly simple question is, "It depends." There is a sticker price (i.e., the published price) and then an actual price (i.e., the net price) that is often lower and not readily known to the public. This price is determined on the basis of various individual factors (e.g., family income) that lead to a discounted price for many students and their families.

Three-quarters of all students enrolled in higher education in the U.S. attend two- or four-year public colleges and universities. Historically, the federal government, states, and local communities have provided significant support to public colleges—and this continues to be true. But, at nearly all of these institutions, students and their families are expected to assume some of the costs of delivering the education by paying tuition and fees. The share that the students and their families pay to attend two-year public colleges has been relatively flat for the last 15 years before declining between 2017 and 2020. The share paid to attend four-year public colleges and universities had been increasing through 2015 before declining slightly since. Any increase in the "student share" can add to the burden families carry when paying for postsecondary education and can lead to additional borrowing to pay tuition, fees and/or living expenses. [5]

1 https://www.intelligent.com/paying-for-college-covid-19-survey

2 The College Board's Trends in College Pricing does not have a comparable data set of tuition data for for-profit institutions. https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf

3 https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf

4 https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf All data in this paragraph is from this link. Student aid expenditures do not include any funding from the Higher Education Emergency Relief Funds.

5 National Center for Education Statistics, Various Years of Enrollment in Postsecondary Institutions, Fall 20xx; Financial Statistics, Fiscal Year 20xx; and Graduation Rates, Selected Cohorts, 20xx-20xx, available at nces.ed.gov/pubsearch/

Tution & Fees Charged by Control of Institution & Race/Ethnicity of Student (2018)

	ALL UNDERGRADUATES		PUBLIC UNDERGRADUATES		PRIVATE, NON-PROFIT UNDERGRADUATES		PRIVATE, FOR-PROFIT UNDERGRADUATES	
	Tuition and fees paid	Student budget (attendance adjusted)	Tuition and fees paid	Student budget (attendance adjusted)	Tuition and fees paid	Student budget (attendance adjusted)	Tuition and fees paid	Student budget (attendance adjusted)
Total	$ 10,484	$ 20,882	$ 6,371	$ 16,500	$ 27,431	$ 40,047	$ 10,824	$ 18,611
Race/ethnicity (with multiple)								
White	$ 11,137	$ 21,491	$ 6,797	$ 16,721	$ 27,690	$ 40,279	$ 11,421	$ 19,680
Black or African American	$ 8,800	$ 18,588	$ 5,554	$ 15,347	$ 20,550	$ 32,052	$ 11,293	$ 18,929
Hispanic or Latino	$ 7,535	$ 17,906	$ 4,585	$ 14,981	$ 23,699	$ 35,907	$ 10,411	$ 17,672
Asian	$ 14,609	$ 26,035	$ 8,331	$ 19,274	$ 37,131	$ 51,608	$ 9,589	$ 17,064
American Indian or Alaska Native	$ 7,231	$ 16,314	$ 5,308	$ 14,939	$ 15,825	$ 25,167	$ 7,913	$ 14,919
Native Hawaiian/other Pacific Islander	$ 11,427	$ 22,297	$ 8,393	$ 19,343	$ 26,354	$ 40,891	$ 11,494	$ 17,984
More than one race	$ 12,484	$ 23,450	$ 7,709	$ 18,327	$ 32,215	$ 45,267	$ 10,503	$ 19,462

Source: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study-Administrative Collection: 2018, Undergraduates (NPSAS-AC).

Sticker Price

Sticker price is the published price. This is a non-discounted price and does not take into account what a student or family must actually pay out of pocket after accounting for grant and scholarship aid.

Over the last several decades, sticker price rose sharply and well outstripped increases in the rate of inflation and increases in wages. In the 1980s and 1990s, the highest rate of increase in the sticker price for tuition and fees occurred among private non-profit four-year colleges and universities. [6] In this most recent decade, private non-profit four-year institutions held the lead with their published tuition and fees rising 14%, compared with 9% for public four-year institutions and 7% for public two-year institutions. [7]

The next table shows the average published charges (sticker price) by type of institution for the 2019–20 and 2020–21 school year, as well as the percent and dollar amount changes from the prior year.

TABLE CP-1 Average Published Charges for Full-Time Undergraduates, 2020-21 and 2021-22

	Sector					Carnegie Classification					
						Public Four-Year			Private Nonprofit Four-Year		
	Public Two-Year In-District	Public Four-Year In-State	Public Four-Year Out-of-State	Private Nonprofit Four-Year	For-Profit	Doctoral	Master's	Bachelor's	Doctoral	Master's	Bachelor's
Tuition and Fees											
2021-22	$3,800	$10,740	$27,560	$38,070	—	$11,620	$9,000	$8,940	$45,830	$29,670	$38,290
2020-21	$3,750	$10,570	$27,150	$37,270	$15,780	$11,430	$8,880	$8,880	$44,840	$28,900	$37,720
$ Change	$50	$170	$410	$800	—	$190	$120	$60	$990	$770	$570
% Change	1.3%	1.6%	1.5%	2.1%	—	1.7%	1.4%	0.7%	2.2%	2.7%	1.5%
Room and Board											
2021-22	$9,330	$11,950	$11,950	$13,620	—	$12,500	$10,980	$11,060	$15,530	$12,800	$12,640
2020-21	$9,150	$11,720	$11,720	$13,310	—	$12,230	$10,790	$10,840	$15,210	$12,550	$12,330
Tuition and Fees and Room and Board											
2021-22	$13,130	$22,690	$39,510	$51,690	—	$24,120	$19,980	$20,000	$61,360	$42,470	$50,930
2020-21	$12,900	$22,290	$38,870	$50,580	—	$23,660	$19,670	$19,720	$60,050	$41,450	$50,050
Percentage of Undergraduates Enrolled Full Time											
Fall 2020	35%	80%		82%	68%	83%	75%	53%	87%	75%	87%

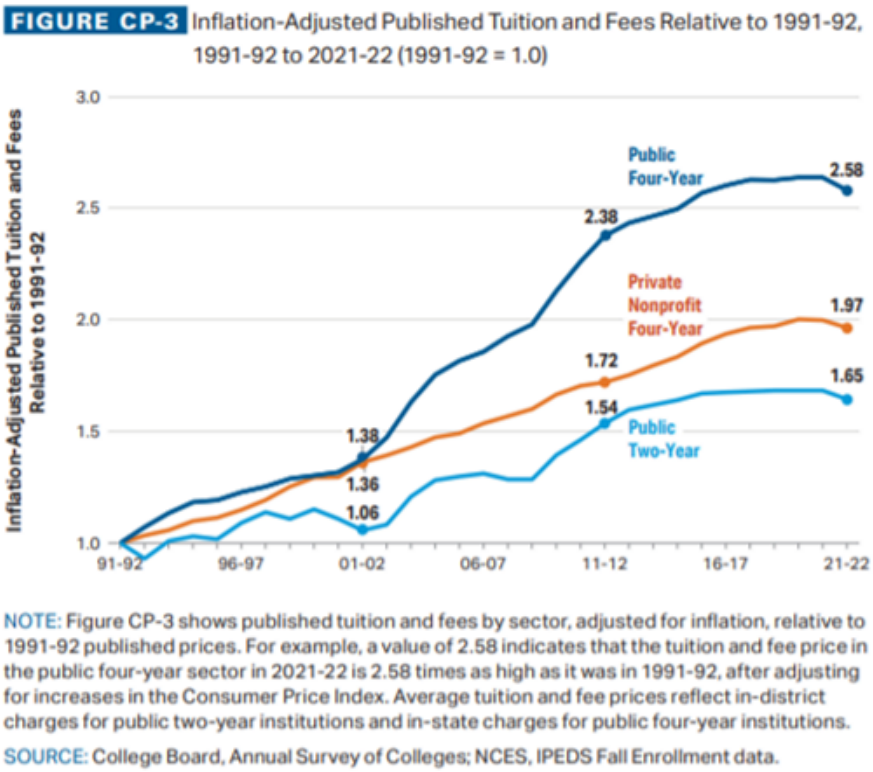
NOTE: Prices in Table CP-1 are not adjusted for inflation. Tuition prices reported for 2020-21 have been revised and may differ from those reported in *Trends in College Pricing and Student Aid 2020*. The latest tuition and fee estimate available for the for-profit sector is for 2020-21. Carnegie groupings are based on 2018 Carnegie classification, which categorizes more institutions as doctoral than previous years' Carnegie classification.

Source: College Board, Trends in College Pricing 2021

6 Government Accountability Office. State Funding Trends and Policies on Affordability (December 2014). http://www.gao.gov/assets/670/667557.pdf.

7 Trends 2021

While the trend lines shown in the following chart demonstrate a rather smooth, upward increase in college tuition, it is also useful to look at patterns in year-to-year increases in college tuition and fees. There, we see a far more erratic pattern of small annual percentage increases sometimes followed by sharp double-digit percentage increases.



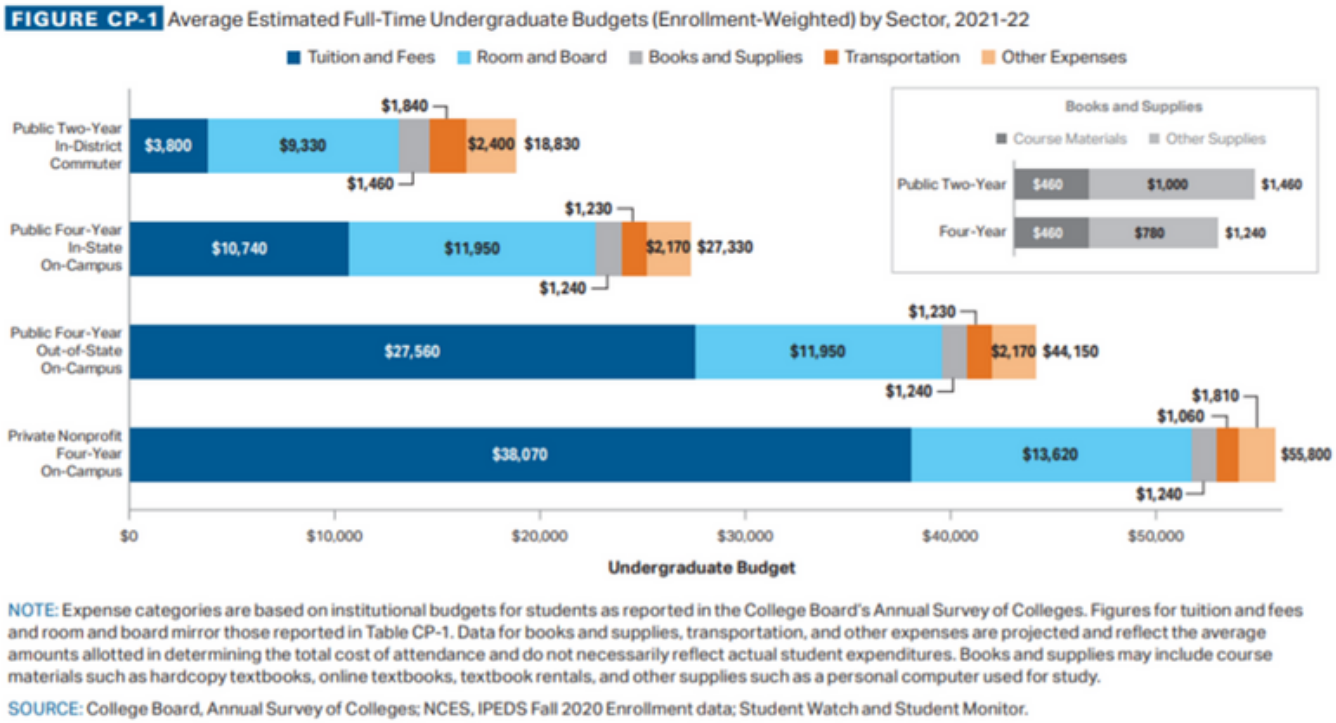
Source: College Board, Trends in College Pricing 2021.

In addition, over the last few decades, a small subset of institutions froze or decreased tuition for a year or more. Unfortunately, these freezes were often followed by large increases in tuition and fees to make up for previous dips in revenue. This rather erratic pattern of the rate of increase in published tuition and fee rates has made financial planning for students and their families exceedingly difficult, as there is no clear pattern for predicting how much or how little tuition will go up in any given year.

Although the media most often reports on the sticker price at the most expensive colleges and universities in the nation, typically the $40,000 and above club, it is useful to keep in mind that most undergraduates are not enrolled in the highest-priced institutions. For the 2019–20 academic year, 51% of undergraduates enrolled in four-year colleges (public and private non-profit) with a published price of less than $13,000 for tuition and fees. [8]

It is also important to keep in mind that tuition and fees are only part of the total cost of attendance. Other expenses include books and supplies, room and board, health insurance, and transportation. At a public four-year institution, students can expect these kinds of expenses to add an additional $15,000 on top of tuition and fees. See the next graphic for the average estimated undergraduate costs for the 2021–22 school year, broken down by sector.

8 Trends 2019 https://research.collegeboard.org/pdf/trends-college-pricing-2019-full-report.pdf



Source: Trends in College Pricing and Student Aid 2021.

Net Price

As discussed earlier, the published/sticker price is not the price many students and their families actually pay. Net price is the price a student or family pays after subtracting the amount of grant and scholarship aid they receive from the published price of attendance. In 2020–21, 6.2 million undergraduates received a federal Pell Grant, and 1.6 million undergraduates received a Federal Supplemental Educational Grant.[9] Although student loans may be a significant part of a student's financial aid package, because the loans must eventually be repaid out of pocket (unlike a grant or scholarship), student loans are not subtracted from the sticker price when calculating the net price.

Focusing on net price, rather than the sticker or published price, has become very popular among policymakers and college and financial aid administrators in recent years. Surveys indicate that many students and parents, especially lower-income, first-generation college students, overestimate the amount they will be required to pay out of pocket for college and underestimate the amount of financial aid for which they are eligible. This misperception deters some students from even applying for school out of a belief that there is no way they could ever afford to go to college.

9 Trends 2021

Need-Based Aid vs. Merit-Based Aid

Most federal student aid, like Pell Grants, along with much state and institutional aid, is awarded based on financial need. To receive this aid, students complete a Free Application for Federal Student Financial Assistance (FAFSA) and at some institutions a supplemental form such as the CSS Profile, which is used by over 100 colleges and universities. The information reported on the FAFSA (and any supplemental form the state or institution relies on) determines a student's relative need for aid.

Many institution, state, and private financial aid programs combine merit and need or award solely based on merit. Merit in this context can be prior academic performance, athletic abilities, or other special talents.

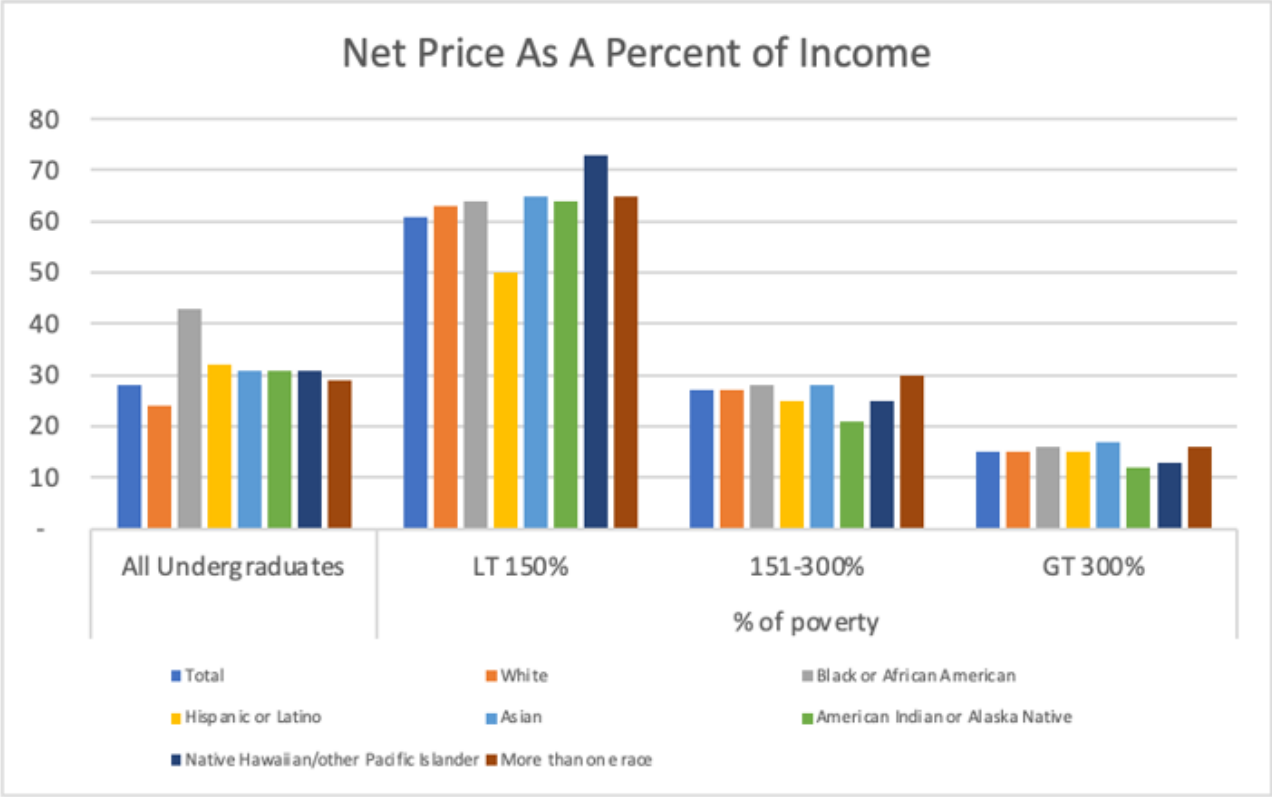
Research on financial aid awarded based on merit shows some concerning results. For example, one study showed that within three to five years of introducing a merit aid program, the top tiers of private colleges saw the share of Pell Grant recipients fall by 6 percentage points. At bottom-tier schools, the proportion of Pell Grant recipients initially rose but ultimately dropped by 2 percentage points within 10 years of the creation of such a program.

The study also found that the introduction of a merit aid program led to a reduction in the representation of black students at top-tier schools.

Differences in *state higher education* policy play a significant role. Two states, Georgia and New Hampshire, award student financial aid entirely based on merit, while seven states, including Hawaii and Rhode Island, award aid solely based on need.

The growth and prevalence of merit-based aid may also impact low-income students' perceptions of the federal aid system, leading them to believe, for example, that their grades are not good enough to qualify.

A different way to look at the question of the burden posed by the cost of college is to consider the percent of a family's income that would be needed to meet the net price after all grants are subtracted. Across all institutional types, income levels, and races/ethnicities of students, 28% of a student's and their family's income would be needed to meet college costs. It is important to remember that, often, students borrow some or all of these costs under the federal student loan programs. For those from low-income backgrounds—i.e., those whose families have a total income below 150% of the federal poverty guideline—the expected share of income is 61%. Among students from families with income levels between 151% and 300% of the federal poverty guideline, the expected share of income to meet remaining net price is 27%, and for those from families with incomes over 301% of the poverty guideline, the share is 15%. Across the income categories presented, the differences by race/ethnicity are not statistically significant.



Federal Response to Increases in the Price of College

The setting of college tuition and fees is the responsibility of individual colleges and universities, but because the federal government provides substantial financial aid to assist students in paying for college, there has been discussion about the role the federal government should or might play in addressing college costs. During the last full reauthorization of the Higher Education Act, the Higher Education Opportunity Act of 2008 (HEOA), Congress included a number of provisions related to the price of college.

Net Price Calculators

In recent years, increasing attention has been given to helping families better understand the net price of college through tools such as a net price calculator. Every college and university receiving Title IV federal financial aid is now required to have a net price calculator on its website that students and families can use to estimate the net cost of attending their school. Schools have the option of using a net price calculator designed by the U.S. Department of Education or designing their own, provided they meet the minimum requirements of the statute.

Since these net price calculators are varied in design (from the very simple to the very detailed and complex), it can be difficult to know if students and families—especially those from low-income backgrounds—find them useful in planning for and making decisions about going to college. A study from the University of Pittsburgh found that net price calculators' estimates of federal and state aid do correlate highly with actual aid received, but that institutional aid estimates were much less accurate. According to this research, while these calculators can provide a ballpark estimate of expenses for low-income families, the variation in the actual cost is substantial.[10]

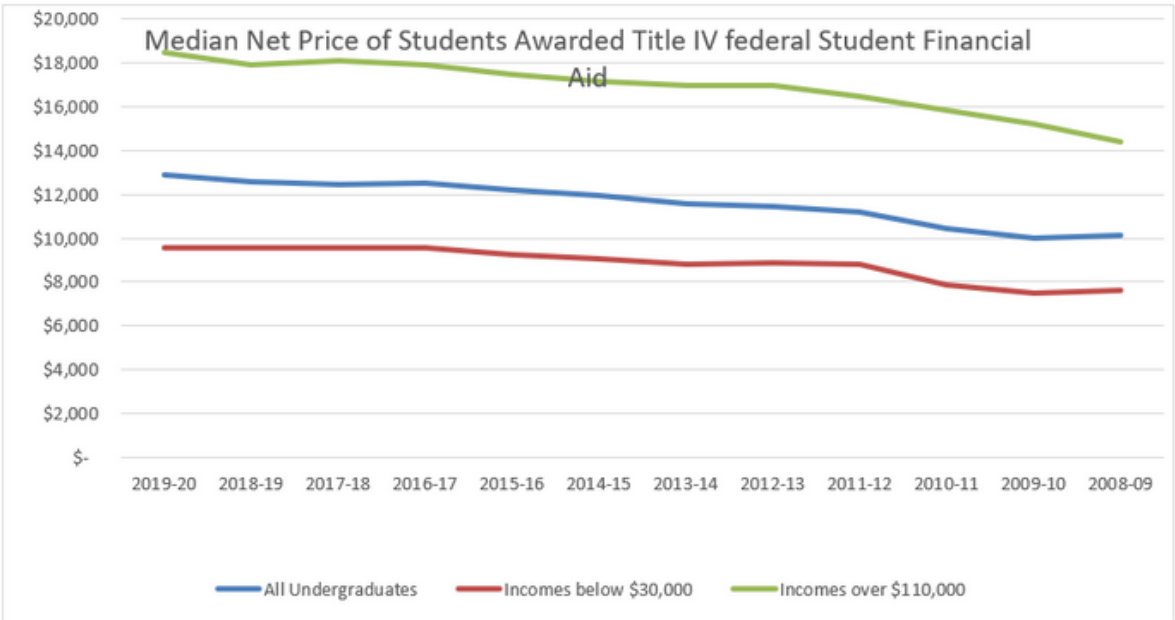
10 Aaron Anthony, Lindsay Page, Abigail Seldin. In the Right Ballpark? Assessing the Accuracy of Net Price Calculators. (University of Pittsburgh: 2015). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2555051.

An analysis from the University of Pennsylvania found that, among 80 institutions with high Pell-eligible student enrollment, 12% did not meet minimum federal requirements for displaying net price calculators online. The researchers also found that a quarter of institutions provided more than one calculator and a third of institutions did not prominently display the federally defined net price.[11]

Average Net Price

In addition to offering the net price calculator, the Department of Education reports on its College Navigatorwebsite the average net price for beginning full-time undergraduate students, disaggregated by income levels, for all institutions eligible for Title IV federal financial aid. These data can provide helpful insights into trends in the net price being paid by students and families in the period since 2008–09. These data suggest that the median net price for students awarded Title IV federal aid at public four-year colleges has risen less dramatically than the sticker price. For students from families with incomes less than $30,000, for example, the median net price at public four-year colleges rose by just $301 or a rate of 0.7% per year. Among students from families with incomes over $110,000, the median net price at these institutions rose by $984 or a rate of 1.1% per year. [12]

Federal, state, and institutional grants have helped to stabilize net price as the sticker price has continued to rise. In 2019–20, the median share of full-time, first-time undergraduates enrolled at public four-year colleges and universities awarded federal, state, local, or institutional grant aid was 86% with the median grant amount totaling $7,914. By contrast, just five years earlier—in 2024–15—the median share of full-time, first-time undergraduates awarded federal, state, local, or institutional aid was 77% with the median grant amount totaling $6,616. That represents a 12-percentage point increase in the rate of these students receiving such aid and an increase of 20% in the median amount of aid received. Notable was that the share of full-time, first-time undergraduates receiving Pell Grants remained the same (at 44%) while the median amount of Pell Grants increased by 11% from $4,405 to $4,883 between 2014–15 and 2019–20.[13]



Source: Integrated Postsecondary Education Data System (IPEDS) available at https://nces.ed.gov/ipeds/datacenter/Data.aspx

11 https://www.gse.upenn.edu/pdf/ahead/Questioning_the_Calculations.pdf

12 Author's analysis of data from the Integrated Postsecondary Education Data System (IPEDS) available at https://nces.ed.gov/ipeds/datacenter/Data.aspx

13 Author's analysis of data from the Integrated Postsecondary Education Data System (IPEDS) available at https://nces.ed.gov/ipeds/datacenter/Data.aspx

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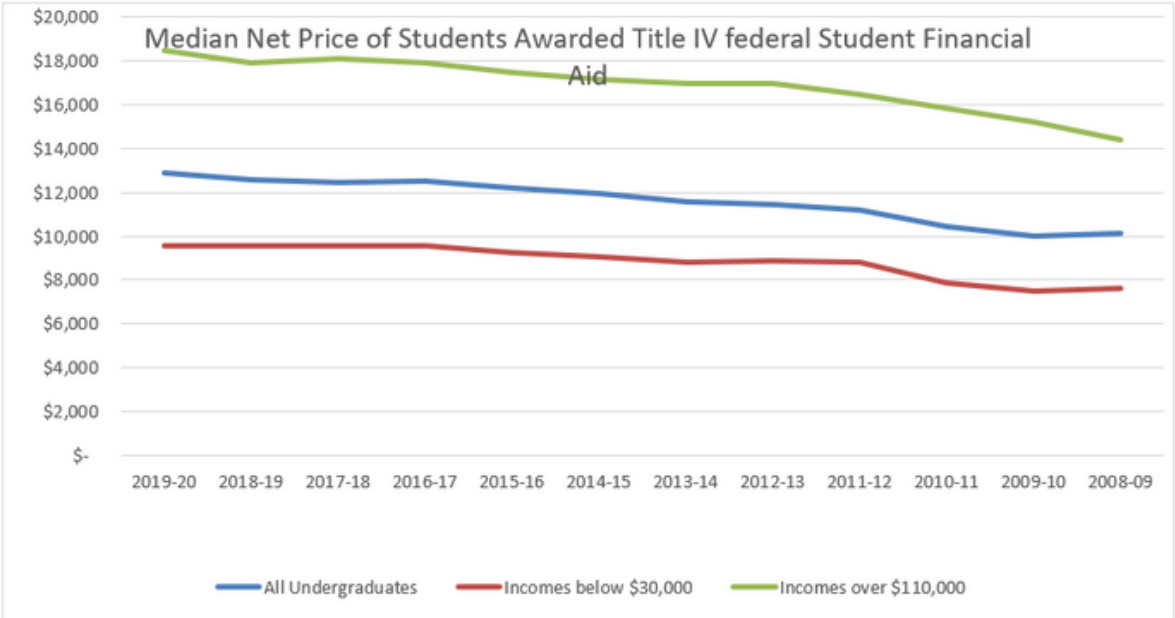

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Tuition Lists

Also included in the Higher Education Opportunity Act of 2008 is an annual requirement for the U.S. Secretary of Education to make public a list for each of the various sectors of higher education (four-year, two-year, less than two-year, public, private non-profit, and for-profit) of the top 5% of schools in each of the following categories: highest tuition and fees, highest net price, highest increase in tuition and fees, and highest increase in net price. These lists also include the 10% of schools with the lowest tuition and fees and those with the lowest net price.

The first annual reporting of these lists was released July 1, 2011, and subsequent reports may be found at the Department's *College Affordability and Transparency Center* website. Schools with the highest increases are required to file reports with the Secretary of Education detailing the reasons for the increase in cost and their plans to contain those costs.

College Cost Drivers

In recent decades, a number of drivers of college costs have been postulated. Some are more related to the cost of delivering an education while others have more to do with who is paying those costs and the price being paid.

These drivers include but are not limited to:

- Decreased state appropriations in an increasingly competitive and crowded state budget (e.g., K–12 education, Medicaid, infrastructure) (increased price paid by students and families);
- Labor costs and structures (e.g., salaries and benefits, tenure) (cost of delivery);
- Low levels of institutional efficiency (e.g., high maintenance cost facilities that are used for a small number of hours each day) (cost of delivery);
- The types of programs offered (cost of delivery);
- Development and addition of new programs (cost of delivery);
- Resistance to eliminating existing programs (cost of delivery);
- Athletic programs (cost of ancillary services); and
- Student demand for expensive services and amenities (e.g., new dorms, computer services, gyms, student centers, parking) (cost of ancillary services).

Other factors impact what students and families ultimately pay to complete a degree program. These student-centered cost factors include increased time to graduation, the need for remediation, and the difficulty or inability to transfer credits from one institution to another.

Although there is much speculation as to what is driving up the cost of college and what to do about it, little research has been conducted demonstrating what would or would not be effective in reducing the cost of providing a college education. Research on this topic is complicated by the complex and varied cost structures of individual colleges and universities across the United States (e.g., public versus private non-profit versus private for-profit, or the Tier I research institution versus the local community college) and further complicated by a lack of transparency, frequent changes to accounting standards, and lack of common reporting of college expenditures and revenues across institutional categories over time.

At present, state and institutional initiatives to reduce the cost of college are generally focused on improved cost efficiencies (e.g., consolidation of administrative functions, reduction in energy costs, and reduction in salary growth and benefit costs) and improved student learning productivity (e.g., increase in student retention and on-time graduation rates, reduction in excess degree credits, increase in number of credits accepted for transfer, and increase in acceptance of prior learning and credit-by-exam).

Other initiatives focused on efficiency include state performance-based funding, which links state monies to outcomes (i.e., retention and graduation rates). As of 2020, 41 states had adopted performance-based funding policies. These policies are highly varied with some states allocating only a small share of their funding based on performance outcomes while others link 90% or more of their funding to student success measures.[14] To date there is little evidence that performance-based funding leads to improved student outcomes. Apart from this lack of evidence, researchers are concerned that with it comes unintended consequences such as weakened academic standards and tightened admissions policies.

It is important to note that when efforts to reduce the cost of college are successful, such cost reductions may or may not result in reducing the student share of cost: Colleges may shift cost savings in one area to increased spending elsewhere in the institution. Finally, even if strategies prove to be effective for reducing the cost of college, colleges and universities have much to do to turn the tide of public sentiment on the issues of college cost and price.

Of note is a *recent study* that suggests that public attitudes on one aspect of college costs and price are shifting. As recently as 2010, over 60% of those surveyed expressed the view that parents and students should bear most of the responsibility for funding college costs. By 2019, however, that view had changed substantially with the government being expected to absorb more of the cost. Indeed, less than 40% of those surveyed held the view that parents and students should bear the responsibility for funding college costs. The researchers followed up with those surveyed and learned that the public is now more supportive of government responsibility than ever before.

Updated June 2022