Like Nobody’s Business

An Insider’s Guide to How US University Finances Really Work

ANDREW C. COMRIE
7. Student Affairs

7.1 What are the numbers for recruiting and admissions?

As we’ve seen, most universities are tuition-dependent, especially the smaller non-elite institutions, and enrollment is their financial life-blood. Effective enrollment management is therefore critical to the survival and success of a campus. Enrollment management begins with recruiting and admissions, although nowadays it goes well beyond those activities. Done strategically, enrollment management is most effective when it (i) optimizes student success in the context of the institution (diversity, location, selectivity, size, etc.) and (ii) works in close collaboration with academic programs, all of which lead to improved retention and graduation rates, greater overall enrollment numbers, and consistent and predictable tuition revenues. That said, we’ll focus on recruitment and admissions in this section, and then progress to other aspects of the incoming class in subsequent sections.

Every university needs to shape its incoming class and doing so requires a set of marketing and recruitment activities that cost money. A recent survey provides some insights into these expenditure details (Ruffalo Noel Levitz 2018), although it is unfortunately quite narrow (N=126) and limited to small privates and a range of publics. The median cost to recruit a new undergraduate enrollee in 2017, including personnel costs, was $2,357 at small privates (middle tercile of total enrollment from 1,673 to 2,992 students) and $536 at public institutions (middle tercile of total enrollment from 8,683 to 17,144). Omitting personnel costs, those medians are $1,102 and $175 respectively (Ruffalo Noel Levitz 2018) with the primary scaling being the efficiency of larger incoming class size. Backing out those numbers, the typical size of a recruiting and admissions staff is 10 to 30 FTE at small privates and 30 to 50 FTE at midsize publics, with expenditures of $2M to $3M in either case on the mix of activities shown in Figure 7.1. Marketing is the largest expenditure in this area, followed by travel and events such as admissions fairs. These latter two reflect the key role of reaching college-bound students in high school, and the special influence of guidance counselors who rank visits from university representatives as their most useful source for helping students with college planning (Ruffalo Noel Levitz 2017b). Universities also purchase lists of prospective students from vendors such as the College Board and ACT, which, at 10% of the recruiting budget, cost well into the six-figure range. Unsurprisingly, digital marketing budgets are growing faster than any
other part of the recruiting budget, with traditional marketing budgets mostly staying flat or decreasing (Ruffalo Noel Levitz 2018).

Figure 7.1. Share of FY2018 recruiting budget allocated to specific marketing and recruitment activities from a survey of 126 four-year institutions, including public institutions of all sizes and predominantly smaller private institutions. Source: RNL (Ruffalo Noel Levitz 2018).

Figure 7.2. Percentage of admitted applicants and subset of those who enrolled for FY2018, averaged by Carnegie classification and control. Source: IPEDS (2020).
The number of applicants ranges from thousands at the small colleges to tens of thousands at large universities. At most types of institutions, 50–70% of applicants are admitted on average (Figure 7.2). R1 institutions admit a lower percentage of applicants than R2 and smaller institutions across publics and privates, with the most notable being the R1 privates where the admissions rate averages only 18% of applicants. Naturally, the applicant populations differ across types of institution, so that selectivity is more stratified than it looks from these basic numbers (that’s coming up next). The subset of applicants who subsequently enroll is 16–20% (of the 50–70%) at the publics, likewise 10–13% of applicants at R2 and smaller privates, and just 6% of the 18% of admitted applicants at the R1 privates.

If we take these enrollment figures as a percentage of those admitted, we get a (widely over-used) metric known as the yield, the percentage of admissions that became enrollments (Figure 7.3). Purveyors of college rankings frequently use yield as a measure of selectivity, with a higher yield supposedly indicating a more selective institution. However, yield rates are so inconsistent as to render this approach utter nonsense. Indulge me, if you would: take a look at Figure 7.3, where we see that the R1 private universities average 34% yield, followed by all the publics in decreasing size order (30–26% yield), and then the other three types of private institution around 19–22% yield. If that wasn’t enough to demonstrate that yield is a poor index of selectivity, allow me to cite a handful of yield rates for individual institutions as a further indulgence: Harvard leads the R1 private schools at 83% yield, followed by Stanford, MIT, Chicago, Yale, etc., much as expected; things unravel from there, though, with the R1 public universities led by the University of Nebraska-Lincoln (51%), UC Berkeley and UW-Milwaukee tied for 7th place (44%), but with UW-Madison in 31st place (35%); institutions of different types also at 44% yield like UC Berkeley include the University of North Dakota, Northwestern State University of Louisiana, and Liberty University, to name just a few. With all due respect to my colleagues at these schools, I imagine they’d be among the first to agree that they are not as selective as Berkeley. So, yield is a terrible measure of selectivity, more inconsistent than not because it is a complex contextual combination of applicant pool, financial aid, reputation, competition, and more.\footnote{By the way, cynical college applicants invented the concept of yield protection (a.k.a. Tufts syndrome), which alleges that, to bolster its rankings, a university will manipulate yield by rejecting or wait-listing highly qualified applicants who will surely be accepted to higher-prestige schools. Admissions officers deny its existence, but like any good conspiracy theory, it is conveniently appealing to those rejected by their safety schools in the admissions process (Pak 2015).} OK, that was fun, but let’s get back to our regular programming.

Recruiting and admissions staff build a class somewhat like an investment portfolio, balancing applicants across a range of academic preparation, in-state and out-of-state share at the publics, enrollment targets related to size and revenue, student demographics, and the mix of need-based and merit aid from the institution to hopefully increase academic readiness, diversity and revenue. While much of this activity is aimed at high school graduates, transfer students from other universities...
and colleges are becoming an important component of the incoming class at many institutions too.

As potential future students are identified and move along the path from prospect to applicant to being admitted and matriculating, admissions staff members use several indicators to monitor and manage that path.\(^2\) At the start, these indicators include information requests, email open rates, and such, along with campus visits. A paid application fee is an early indicator of intent, and after the admission decision other similar indicators include housing deposits, orientation signup, and ultimately enrolling in courses. These are all going on simultaneously in the year or more before the student arrives, and the indicators are checked closely and regularly, with the incoming class being shaped continuously via tuning of admission and aid offers, in some cases right up until classes begin.

### 7.2 What are the academic and financial profiles of the incoming class?

Fortunately, we have a useful index of academic preparation in IPEDS, which collects information on standardized test scores. These tests, such as the SAT and ACT, which

---

\(^2\) A phenomenon known as summer melt is seen in this process, and it comes in two varieties: one is related to competition, in which students drop out of the process at one university in favor of another; the other relates to college-intending students, more typically from low-income backgrounds, who for various reasons including perceived financial issues or other unexpected obstacles, fail to make the transition to actually enrolling.
assess what might be informally described as the “three Rs” (reading, writing, and arithmetic), offer a useful common benchmarking comparison across most applicants to undergraduate programs (as does the GRE for graduate school). These tests are validated to predict first-year college grades (ACT, Inc. 2017; The College Board 2018), not college success overall or future earnings and so on; validity here is used in the narrow, technical, psychometric sense of robust statistical association. They are not perfect and display differences across demographic subgroups, largely (but not completely) attributable to differential academic preparation (ACT, Inc. 2017). First-year grades and class-rank can be similar predictors of grades in entry-level courses, but they are not standardized. It’s the latter feature that makes standardized tests useful for benchmarking (comparison), which is how we’ll employ them here. Using scores expressed as score percentiles so we can compare across tests as well, Figure 7.4 illustrates the interquartile range (from the 25th to 75th percentile) of admitted applicants. The admitted applicants to R1 private institutions are remarkably well-prepared and the middle 50% of them occupy a narrow band between the 93rd and 99th score percentiles. The 25th percentile individuals in that group score similarly to the 75th percentile individuals at the R1 publics and R2 privates. A similar step jump occurs from the latter to R3-M3 privates, with private baccalaureate colleges overlapping these last two categories. There is relatively more overlap among the different types of public institution as compared to the privates, although the same step pattern across types is still clear. This test score/academic preparation distribution pattern is a critical part of the college rankings discussion, which we’ll cover in Section 14.2.

Figure 7.4. Range of 25th to 75th percentile values of standardized test scores of admitted applicants for FY2018, expressed as score percentiles for comparison, on the SAT Evidence-Based Reading and Writing (EBRW), SAT Mathematics, ACT Composite, ACT English and ACT Mathematics tests, averaged by Carnegie classification and control. Sources: IPEDS (2020), The College Board (2018) and ACT (2019).
The consistency of score percentiles within each type of institution across the various kinds of test is worth noting too. It’s encouraging to hypothesize that the greater overlap across public versus private institutions reflects the public university mission of greater accessibility and inclusion. Again, we are fortunate that IPEDS collects the necessary data to test that hypothesis, in this case income levels of first-time, full-time undergraduates, illustrated in Figure 7.5, where I’ve expressed them relative to the US average household income distribution. These data are just as illuminating as the standardized test data. Public universities are indeed much more representative of the national income distribution than the privates, and starkly so in some cases. In a result that you might not expect, the R1 public universities and public baccalaureate colleges are within just a few percent of the US population across all income bands. Lower- and upper-income bands are relatively over- and under-represented at R2 and R3-M3 publics by roughly 10% and 30% respectively. At R1 and R2 private institutions, incoming undergraduates in the income band of $110,000 or more are over-represented by 60–80%, those in the $30,000 to $75,000 band by 20–30%, and those in the lowest income band under $30,000 are 30–46% under-represented on average. The patterns are similar, but not as extreme, for the smaller private institutions. There is so much that can be said about these two sets of data in conjunction, but I’ll keep it brief. Of course, the privates by their nature are more expensive and will therefore have more students from wealthy backgrounds, especially the smaller tuition-dependent privates that are struggling for revenue. Still, the extent of the imbalance is nonetheless glaring,

Figure 7.5. FY2017 representation of first-time, full-time undergraduate degree-seeking students (including those awarded and not awarded aid) by family income level, expressed as percentage difference from the corresponding distributional share of the US average household income, averaged by Carnegie classification and control. Sources: IPEDS (2020) and IPUMS (Flood et al. 2018).
particularly at relatively well-endowed R1 privates that often profess inclusion. A recent study found that students from families in the top 1% of the income distribution are 77 times more likely to attend an Ivy League college than those from families in the bottom income quintile (Chetty et al. 2017). Still, the fact that R1 publics can achieve a balanced mix of income bands while attracting well-prepared students demonstrates that it can be done.

7.3 How much aid are incoming students awarded by income level?

We looked at financial aid broadly in Chapters 3 and 4, and here we focus on aid awards stratified by student family income. Overall, we would expect relatively more students from less wealthy backgrounds to receive aid and to receive larger aid awards, ceteris paribus. The data show that these statements are indeed true. Figure 7.6 shows that over 90% of students with family income levels less than $75,000 receive financial aid at all types of university. At public institutions, the share is 70–80% in the $75,000 to $110,000 income band, while only 50–60% of students in the band greater than $110,000 receive aid. In contrast, at private institutions, virtually all students receive financial aid, over 90% in all income bands except for the uppermost band at R1 privates at

---

3 This Latin term is one of the few things I remember from my first-year economics course, and it means “all else being equal” or “other things remaining constant.” It is typically used in a context such as this where one is positing a fundamental relationship isolated from the influence of other variables.

---

Figure 7.6. FY2017 share of first-time, full-time undergraduate degree-seeking students awarded grant and scholarship aid by family income level, averaged by Carnegie classification and control. Source: IPEDS (2020).
82% (Figure 7.6). The main reason for the public-private difference is the much higher tuition and associated institutional aid at the privates.

We can see this in the amounts of financial aid versus price paid towards the total cost of attendance (Figure 7.7). Cost of attendance is the full cost upon which financial aid is awarded, and it includes tuition as well as accommodation, food, books, supplies, transportation, etc. Cost of attendance (largely tuition) is much higher at the privates, with aid levels in all income bands set correspondingly higher to reduce the net price paid closer to that at the publics. Students in the lowest income band pay $10,000 to $11,000 per year at all types of public institution and, notably, also at R1 privates; however, these students pay roughly double at the smaller privates. Students in the highest income band pay most of the cost of attendance at the publics, about 90% on average, ranging from $17,500 to $23,000. At the privates, students in the higher income band pay 60–70% of the cost of attendance, but the amounts are roughly double in dollar terms, ranging from about $27,000 to $43,000 annually. Despite the high aid amounts at the privates, the net price paid is generally higher and therefore, as you will recall from the previous section, private institutions have relatively fewer students in the low- and middle-income bands. Of course, $10,000 per year at the publics (or R1 privates) is still a lot of money for a low-income family, with serious implications for equity (Mugglestone et al. 2019). Financial aid for low- and middle-income students has generally tracked the institutional charges, but not living expenses (St. Amour 2020).

![Figure 7.7. FY2017 amount of grant and scholarship aid and net price by family income level for first-time, full-time undergraduate degree-seeking students awarded Title IV aid, averaged by Carnegie classification and control. Amounts for public institutions are at in-state rates. Source: IPEDS (2020).](image-url)
A related policy question surfaces from time to time: do state subsidies at public universities favor the wealthy? We have now seen all the evidence demonstrating that this is patently not the case, as a thorough study has clearly found (Delisle and Dancy 2016). The argument is that state funding for public universities provides an indirect subsidy, and because that subsidy is relatively higher per student at the larger prestigious state institutions that also spend more per student than smaller, less prestigious schools, and because students attending the bigger schools are more affluent, students from high-income families must be receiving a greater public subsidy than their low-income counterparts. That logic draws over-simplified conclusions from generic per-student funding rates and doesn’t consider who receives financial aid and thus the tuition paid by family income level (Delisle and Dancy 2016). We’ve seen in Section 7.2 that the R1 (or any other size) publics do not enroll predominantly high-income students. Plus, we’ve just seen that low-income students receive grant and scholarship aid that reduces their tuition paid at all types of public university, before accounting for federal and other aid. Additionally, affluent students are more likely to attend out-of-state schools where tuition is well above the cost of education and carries no subsidy (see Section 3.6). For these reasons, the indirect state subsidy for public universities does not favor the wealthy.

Returning our attention to all types of institution, once the financial aid dust settles, the typical student pays almost double to attend a private school. The income-scaling range from lowest to highest student family income level is consistent across public institutions, with students from the wealthiest backgrounds paying roughly twice what those from the poorest backgrounds pay; that factor diverges at the privates that include both broader (R1) and narrower (R3-M3) income-scaling ranges. Naturally, because these figures are all averages, individual students each receive aid and pay a net price that is more or less unique, based on their combination of academic preparedness, family income, and fit to the university’s overall portfolio for its incoming class. Up to this point we’ve ignored the type of aid awarded, so we’ll look at the split between need-based and merit aid next.

7.4 How much aid goes to need versus merit?

Institutional financial aid, as distinct from federal, state, and other forms of aid, is divided into need-based and merit (non-need based) components and, as the name implies, is controlled by the institution. As we saw in Section 2.8, institutional aid is a typically hidden portion of a university budget because, as a discounting device, it is subtracted from gross tuition revenue to obtain the commonly used net tuition revenue. Institutional aid of both types is vital at all universities, but especially at private institutions where it is the dominant form of aid (Figure 7.8). At the publics, total aid per student averages $10,000-$15,000 and institutional aid is 10–20% of that amount while at the privates, in contrast, institutional aid makes up 40–60% of the
$20,000 to $30,000 total aid amount. The R3-M3 institutions award the lowest average proportion of institutional aid relative to other types within the public and private groups.

Let’s take a brief detour to mention so-called need-blind admissions, where the notion is that the admission decision is made before, and independently of, the financial aid decision—“If you’re good enough to get in, you get in regardless of your financial situation, and we’ll figure out the money later.” The intent of the concept is to signal to prospective students of high ability that cost should not scare them away. Only a small number of the most elite schools can cover all need; most institutions do not have enough resources to meet the full financial need of all accepted students without including impractical loans in a need-blind offer. Therefore, most institutions are instead need-aware, and they do consider need in the admission decision. Importantly, this enables them to meet the financial need for all those who are accepted—“If you get in, we’ll make sure you can afford to attend.” Both terms are easy slogans but, outside of the most elite institutions, each has trade-offs and neither one is inherently better.

So, how do institutions split their investments in need-based versus merit aid? Figure 7.9 illustrates undergraduate institutional aid partitioned into need-based, merit and athletic scholarships (the latter are a non-academic subset of merit aid). At the R1 privates, over 75% of institutional aid goes toward financial need. Recall from Section 7.2 that essentially all students at these institutions are academic superstars, so
merit is less of a differentiator than at other types of universities. The split is near half and half at private baccalaureate colleges and R1 publics, and around 30% need-based at the other types of institution.

![Bar graph showing institutional aid partitioned into need-based, merit, and athletic scholarships for different types of institutions.](image)

Figure 7.9. FY2016 share of undergraduate institutional aid partitioned into need-based, merit, and athletic scholarships, averaged by Carnegie classification and control. Source: NPSAS:16 (National Center for Education Statistics 2018a).

It’s tempting to think that many institutions are, if you’ll pardon my bluntness, effectively “buying” meritorious students. While that isn’t entirely untrue, there is an additional psychology at work. For the same dollars, a school can make an offer seem more prestigious by framing all or part of the overall award as a merit scholarship. Most financial aid is “stackable” and that is certainly true of the institutional aid portion. Doesn’t it sound more appealing to be offered a presidential scholarship or an our-mascot-name-here award for your high-school achievements? Then, that merit award is topped up with a need-based award as necessary. Of course, this is all done in a competitive environment and schools, especially those that wish to project prestige, must be careful not to undermine perceptions of brand quality.

I’ve included the athletic scholarships here largely for comparison and as a teaser for Chapter 12, which deals with athletics. It’s interesting to see that at the publics, except for the baccalaureate colleges, 10–15% of institutional aid goes towards athletics scholarships; it’s about half that share at the privates, but their institutional aid budgets are about ten times bigger, thus netting out athletic scholarship spending at about five times the amount of the publics, which is considerably more than what it takes to cover any tuition differential. Let’s leave it at that until later.
7.5 How is tuition discounting used?

The tuition discount rate, usually referred to as simply the “discount rate,” is derived by calculating the total amount of institutional grant aid (need plus merit) as a percentage of gross tuition and fee revenue. Essentially, it’s what the institution awards (in cash and waivers) as a share of what it would have collected had it charged full tuition and fees (a.k.a. “sticker price”) to every student, like this:

\[
\text{Discount Rate} = \frac{\text{Total Institutional Aid to Incoming Students}}{(\text{Sticker Price}) \times (\text{Number of Incoming Students})}
\]

It’s literally the percentage discount off the sticker price, reflecting not only what the average student pays after institutional aid (not counting federal aid, loans, etc.) but also the complement to (and a key lever of) net tuition revenue. Note that this doesn’t include room and board, textbooks, etc., just tuition and fees. The version above is for the incoming undergraduate class, which tends to run a few percentage points higher than the discount rate that can be calculated similarly for undergraduates overall.

Enrollment managers have an extremely tough job to build a class of the desired quality, size, and diversity. On top of that, they have the weighty responsibility of controlling the discount rate elements that supply the institution’s net tuition revenue. It’s their version of optimizing the “iron triangle” (see Section 14.3): obtain the desired quantity at maximum quality and minimum cost. The unfortunate psychology of the college recruiting marketplace is that (i) higher sticker price is perceived to signal high quality and (ii) everyone expects a discount. Pricing and discount strategies have therefore evolved with the market, which has shifted from low-tuition/low-aid a generation ago to high-tuition/high-aid in recent decades.

That shift means higher discount rates, which are exactly what we see in the data (Figure 7.10). Two patterns are immediately clear: one, the trends are all upward, about 7 to 15 percentage points higher over the almost two decades of data depending on the type of institution; and two, the privates discount at almost double the rate of the publics. The current average discount at the publics is 23–34%, whereas it is 41–53% at the privates. Of course, the privates have much higher tuition, but the higher discount rates bring the average tuition paid comparatively closer to that at the publics, as we saw when looking at net price by income level in Figure 7.7 (although those numbers include all aid, not just institutional aid, but the general patterns are the same).

This is a good juncture for us to return briefly to “skyrocketing” tuition increases of 3–4% annually. We saw earlier that, after accounting for rising enrollment and inflation, net revenues and expenditures have been rising at 1% or less (see Sections 2.10 and 3.4). We also saw that the explanation for those latter increases over general inflation

---

4 The dependence of the discount rate on (the semi-arbitrary) sticker price is the subject of a recent critique, which notes that it is a flawed metric for following university finances (Levine 2019).
7. Student Affairs

Figure 7.10. Trends in tuition discount rates for full-time first-time undergraduates, averaged by Carnegie classification and control. Values for public institutions are weighted to account for proportions of in-state and out-of-state students. Source: IPEDS (2020).

were fundamental economic forces related to being in a labor-intensive industry and the continual pursuit of quality in a competitive marketplace (see Section 3.7). Still, after accounting for all of those (roughly 2% inflation and 1% labor and quality), where has the remaining approximately 0.5–1% of the annual sticker-price tuition increase gone? The answer is in the apparently irresistible shift to a high-tuition/high-aid model with the associated prestige and discounting that the marketplace has encouraged and supported.

7.6 Why do students drop out and what proportion are retained?

A retained student, and better yet a graduate (see the next section), is not only a successful outcome for the individual but is also more financially efficient and effective for the university. A retention costs three to five times less than a fresh recruit (Cuseo 2010), and improved retention rates lead directly to the success of the institution in graduating a greater proportion of its students. Attrition, the opposite of retention, arises when students drop out of higher education. If this occurs, state appropriations yield lower returns, students diminish their lifetime incomes, and universities lose revenue (Johnson 2012).
Box 7.1. College Dropouts Get Mostly A’s and B’s

Contrary to popular misconception, inadequate academic preparation or performance are minor causes of students dropping out of four-year universities and colleges (Bound et al. 2010; Johnson 2012). Overwhelmingly, students drop out because of other life issues, and not because they are having academic problems (Figure B7). A major longitudinal study found that for students with unfinished degrees, 80% left in good standing, most of those with A and B grades, and with the majority departing in the first two years (Johnson 2012). Effective student-success support systems are expressly designed to address not only academic support, such as early warning and tutoring services, but also to assist to the degree possible with the many other reasons that students drop out, e.g.: by providing counseling services; by supplying financial advice and supplementary aid; and, if a student must leave, such as when a personal crisis hits, assisting with how to withdraw formally (rather than the student just leaving with default failing grades), which makes it easier to resume studies at a later date.

Figure B7. Reasons cited for leaving higher education by students in the 2003–04 cohort of the Beginning Postsecondary Students Longitudinal Study who had left without a degree by 2008–09. Note the relatively low frequency of academic problems. Source: Delta Cost Project (Johnson 2012).

Ensuring the success of students involves a multidimensional set of activities across many aspects of administration and student life, many of them embedded within a student affairs division: recruiting, marketing, application, admissions, transfer, financial aid, orientation, registrar, residence halls, dining, tutoring, advising, student analytics, success interventions, student organizations, mental and physical health, career services, and graduation. The contemporary student affairs portfolio, and by extension the strategic enrollment management portfolio, embody the transition from the pre-1980s
“weeding out” mentality to the “student success” approach over the last few decades. Naturally, to provide this support, student affairs expenditures and personnel have grown accordingly (see Section 7.8). The results of the change have been small but steady gains in retention and graduation rates despite counteracting forces such as increasing enrollments, rising student financial need, and lower state investment with attendant increases in student-faculty ratios at smaller public institutions (Bound et al. 2010).

First-year to second-year retention rates are highest at R1 institutions and decrease by Carnegie classification, with the highest rates in the mid-90% range at R1 privates, followed by R1 publics and R2 privates in the mid to high 80s, and the smaller publics and R3-M3 privates just over 70% (Figure 7.11). We look at retention/attrition from first to second year because it is typically the largest jump—subsequent years tend to have progressively smaller attrition rates. The primary reason for students leaving is not academic performance (see Box 7.1) but having to deal with other life issues. At the institutions with higher attrition, an important contributing factor is the lower income profile of students that reduces their resilience when inevitable challenges occur, such as having to care for a family member or work longer hours at a job because another family member lost income. The relative lack of financial security means that the other pressures of life place greater demands on a student’s time. As we’ll see in the next section, students who are not retained do not always drop out permanently; a sizable number of them transfer and graduate from a different institution, while others “stop out” instead and return to complete their studies later. We’ll also see that these behaviors are more prevalent at lower-retention institutions.

Figure 7.11. Full-time retention rate, defined as the percentage of the fall full-time first-time cohort from the prior year that re-enrolled at the same institution in the current year, for fiscal years 2005 and 2018, averaged by Carnegie classification and control. Source: IPEDS (2020).
7.7 What are the patterns and trends in graduation rates?

The official federal graduation rate is, unfortunately, the source of much confusion and myth because non-specialists who quote it don’t realize how narrowly it is defined. The graduation rate required to be reported by law is the share of students completing their programs within 150% of the standard time (i.e., six years for a four-year bachelor’s degree) at, and here’s the kicker, the same institution where they started as full-time, first-time students. So, if you go out of state for college, decide you’d rather transfer closer to home and then complete your degree locally, you don’t count. If you take a year off for medical reasons and then finish your degree, you don’t count. If you struggle in your first year, go to community college for a semester to improve your grades, and then return and complete your degree, you don’t count. Consequently, it isn’t the percentage of students who graduated in six years as many people might imagine that number, it’s a considerably more conservative version thereof that assumes a standard single-institution continuous conveyor-belt model.

While the choice of such a model is understandable, it is most applicable at the kind of institutions for which it is typical: selective schools with primarily eighteen- to twenty-two-year-old students who are financially well-supported. It should be no surprise, then, that non-selective institutions catering to older and/or working students do not fare as well on this metric. Such institutions tend also to have higher proportions of students who are part-time, as well as those who are taking individual courses without the intention of completing a full credential (most notably at community colleges). Thus, the conventional graduation rate has a built-in bias that under-represents student success for types of schools and students with these latter types of completions.

Also, the regular graduation rate is “institution following” rather than “student following,” meaning that, strictly speaking, it can provide only the aggregate numbers of students attending, graduating or otherwise departing an institution. The regular graduation rate does not provide the graduation outcomes of students independently of institutions attended, including those that transferred, suspended and resumed their studies, or never completed a degree. Because of these concerns, calls for national student unit-record data are made from time to time, although they are often opposed due to privacy concerns (Kreighbaum 2017). Alternative non-government systems

---

5 There were no publicly available national data on graduation rates until the Student Right-to-Know and Campus Security Act of 1990 was passed. It was originally intended to inform student athletes about graduation rates at their prospective programs, which at the time were known to be lower than for all students (Cook and Pullaro 2010). One of the sponsors was US Senator Bill Bradley, a former college and professional basketball player (and Rhodes scholar). In addition to requiring graduation data to be published, the security part of the act similarly required disclosure of campus safety policies and statistics. That section was amended in 1998 and renamed the Jeanne Clery Disclosure of Campus Security Policy and Campus Statistics Act, known as the Clery Act, named for a student who was sexually assaulted and murdered in 1986 at Lehigh University. Her parents argued that, had they known of the many violent crimes on campus in previous years that had not been made public, she never would have attended (Nelson 2008).
have developed in the higher education community instead, notably the National Student Clearinghouse (2019) and associated initiatives such as the VSA and SAM (Voluntary System of Accountability 2019; Student Achievement Measure 2019).

One last bit of throat-clearing before we get to the numbers: graduation rates are not the same as attainment rates, which measure the percentage of the population with postsecondary degrees.6

Graduation rates are based on entering cohorts from six (or more) years earlier, with a standard method to define who is included or not, and from which completion rates for different times can be computed. In recent years, IPEDS has included additional numbers beyond just the cohort size and count of graduates, such as transfers, students still enrolled, and those not enrolled; these values for FY2018, which tracks the entering cohort from Fall 2011 (i.e., FY2012), are illustrated in Figure 7.12. Most students graduate in four years, a further share in five years, and a small share in six years, although these proportions vary by type of institution. Graduation rates are lower at the publics and higher at the privates. Average four-year graduation rates at private R1, R2 and baccalaureate schools exceed those at all public institutions, including the R1 publics that have a graduation rate close to the R3-M3-privates. The relative proportions of students completing in five or six years are lowest at all types of private institution; for example, students graduating on the “five-year plan” range from an additional 8–26% beyond the number who finish in four at the privates,

Figure 7.12. FY2018 rates (Fall 2011 entering cohort) for completion of bachelor’s or equivalent degrees in four years or less, five years, and six years, students still enrolled, known transfers out to another institution, and individuals no longer enrolled, averaged by Carnegie classification and control. Source: IPEDS (2020).

6 The US educational attainment rate reflecting the share of the population aged twenty-five and over with a bachelor’s degree or higher was 35% in 2018 and 4.6% in 1940 (US Census Bureau 2019a).
while the corresponding range at the publics is 36–70%. Six-year full-time first-time graduation rates average 90% at R1 privates, in the 70s at private R2 and baccalaureate schools, and 61% at the R3-M3 privates. The R1 publics average a 74% full-time first-time graduation rate, with the subsequent types down the scale at 56%, 50% and 49% respectively.

But, as I discussed above, this is an undercount of the percentage of students who ultimately finish with a degree. While the portion of students still enrolled at the same institution where they started after six years is just a few percent of the original cohort, the share that were known to have transferred to another institution is sizable at most institutions, 13–18% overall at the medium and small publics and 13% at R3-M3 privates. What fraction of those go on to graduate? About two thirds to three quarters, it turns out, if we look at the Clearinghouse data (See Figure 7.13). An additional 8–10% of students transfer and graduate at a different four-year institution, and a further 2–3% graduate from a two-year institution. If we went beyond six years, several more percent would be added from those still enrolled. The Clearinghouse six-year graduation rates are in the mid-60% zone for students who started at publics and the mid-70s for those who started at privates. Lest we start slipping back into thinking that the smaller schools are somehow “worse” at graduating students than bigger or more selective institutions, or that their students are somehow “weaker” at their studies, this is a good time to repeat the information from the retention section on the reasons why students don’t finish their degrees: most students leave with As and Bs, and they leave to deal with other personal, financial and family issues that are more challenging to resolve for students with lower incomes. The proportion of students in these situations

![Figure 7.13. Six-year outcomes by starting institution type for the Fall 2012 cohort based on National Student Clearinghouse data. Source: NSC Research Center (Shapiro et al. 2018).](image-url)
is the leading reason for the differences in both retention and graduation rates across types of institution. Effective initiatives to improve graduation rates therefore must grapple with and address these underlying challenges.

Challenges notwithstanding, graduation rates have been on an improving trend for several decades. The reportable rate is available in IPEDS only from FY2005 to the present, so to extend the general trends further back in time, I’ve calculated a simple proxy metric using data that are available for a longer period, degrees awarded per (current) enrollment, and shown them both relative to starting values (See Figure 7.14). While they differ in their annual variability, the long-term trends are roughly linear, showing that graduation rates are about 15% higher today than three decades ago averaged across private institutions, and over 35% higher across public institutions. Similar trends are seen in attainment rates (the percentage of the population with a degree, as mentioned above), with a rise from 33.6% of people aged twenty-five to thirty-four years old in 1987 to 52.4% of that age cohort in 2017, a 56% increase (Garrett 2019). By either measure, these are dramatic improvements, even more so given that many of the challenges for students are non-academic in nature, and these trends constitute valuable evidence that parallel activities to increase student success (and access) have indeed paid off.

![Figure 7.14. Trends in two bachelor's degree graduation metrics, the six-year graduation rate for the total cohort (available since FY2005) and degrees awarded per enrolled student (available since FY1987), both expressed relative to their starting values to enable comparison, averaged by fiscal year across public and private institutions. Source: IPEDS (2020).](image-url)
7.8 What are the trends in student services spending?

What are the investment trends in student services (and possibly in student success) that have coincided with improving retention and graduation rates? As discussed in Section 7.6, these activities include transactional student services activities (e.g., admissions, registrar, records) as well as success-oriented activities such as tutoring, developmental courses, counseling services, student organizations, special advising, as well as student performance monitoring, data analytics and intervention. In FY2017, institutions of all types spent about 40% of their student services budget on personnel (around 50% if fringe benefits are included) versus other operational costs such as recruiting, marketing, consultants, analytics services, etc. The trends in overall student services budgets have been strongly upward for several decades and are visible in a variety of metrics. Figure 7.15 illustrates these student services investment trends using expenditures per student FTE and share of the overall E&R budget. Over the last three decades, inflation-adjusted student services spending per FTE has doubled at the publics and tripled at the privates. In Chapter 3 we saw that overall E&R spending per FTE has been increasing over time, and if we calculate student services spending as a share of those amounts, we see that student services spending still increased relative to other E&R spending, from 9.3% to an 11.6% share at the publics (a 25% increase) and from 10.5% to a 14.9% share at the privates (a 42% increase). For comparison, trends in academic support spending (libraries, media services, academic administration and IT, as well as course and curriculum development) were about one half (public)
to one quarter (private) of these increases and for the last two of the three decades, essentially flat or decreasing shares of E&R spending.

Unfortunately, there are no easily available national figures on recruitment versus retention budgets and, based on relative costs of these activities (Cuseo 2010), we must assume that recruitment expenditures comprise a substantially larger portion. That means that much (but not all) of the growth in student services budgets has likely been in recruiting-related activities, which makes sense in a tuition-dependent environment. Still, while retention budget trends cannot be easily determined, there is little doubt that retention initiatives and activities are now widely practiced (Ruffalo Noel Levitz 2017a) and have seen an increase over time.

7.9 What is the total cost of attendance with room, board, and books?

The full cost, by which we strictly mean price, of attending university extends beyond tuition and fees (after subtracting aid) to include books and supplies, room and board, and other expenses. One can reasonably argue that individuals will incur room and board costs whether they are attending university or not—they would still be paying for rent and food if they were working a job instead—but, as a practical matter, students and parents want to know how much the entire experience will cost them.

The formalized way that institutions provide estimates of the total cost of attendance is stratified by a student’s lodging arrangement: on campus, off campus staying with family, and other options. The distribution of students across these categories is shown in Figure 7.16.

Figure 7.16. FY2017 share of first-time full-time students living on campus, off campus (not with family) and living with family. Source: IPEDS (2020).
and off campus living independently (not with family). First-time full-time students stay predominantly on campus at all types of institutions and we see this proportion vary with the different missions and student bodies they serve (see Figure 7.16), averaging from 98% living on campus at R1 privates to 64% at R3-M3 publics. At many, but not all, schools the share of students living on campus (in residence halls) is highest in the first year and diminishes in the second and subsequent years as students seek to live off campus. In the first year, only 5–10% of students live off campus independently, whereas a notably higher share of first-year students live with family (2–26% depending on the type of institution).

Figure 7.17 shows that the average costs for living on campus or independently off campus do not differ much; naturally, students living with family typically will not incur any additional costs for lodging at home although their marginal food costs will still be a factor. The room/board split for on-campus students is roughly 60/40 (about $6,500 and $4,800 on average). Room and board costs are based on a student sharing a room with one other student and a specified number of meals per week (about 20), using institutional room and board charges for on-campus students and area market estimates for off-campus students. Other expenses averaging $3,000 to $4,000 include items such as laundry, transportation, entertainment, and furnishings; the average amount is slightly larger for off-campus students largely because of higher transportation costs. Books and supply costs can vary widely by program, and the average for students in programs without specialized requirements is currently estimated by institutions for financial aid purposes at about $1,200 per year. The institutional estimate definition is an important caveat as we’ll see in Section 7.11 about textbooks; spoiler alert, the book portion is only about half this total.

Figure 7.17. FY2017 non-tuition costs of attendance for the full academic year by lodging arrangement for first-time full-time students, averaged across all types of institution. Room and board charges are shown separately for on-campus students and are not provided for students living with family. Source: IPEDS (2020).
Adding all these components to sticker-price tuition results in the total cost of attendance, illustrated in Figure 7.18 as amounts weighted by the mix of students living on campus, off campus and with family at each school. This is the gross (rather than net) amount and, because tuition is the largest component, we see the stratification across institution types familiar to us from earlier sections on tuition. The average net price paid after accounting for all grant and scholarship aid (federal, state, local, institutional), but not loans, is also illustrated in Figure 7.18. We examined net price by income level in Section 7.3 and here we see it split into in-state and out-of-state versions for the public institutions, which reveals an interesting pattern: the net price paid by out-of-state students at the publics is remarkably comparable to that for students at the privates, $25,000 to $35,000 annually, while it is significantly less ($13,000 to $16,000, about half as much) for in-state students at the publics. These are the actual average costs to students and families, and while they are not small and have grown over time, they are also not the headline-grabbing extreme amounts sometimes cited in the media. We’ll look at affordability of these costs in the next section.

Figure 7.18. FY2017 total cost of attendance and component costs of published tuition and required fees (left and right columns are in-state and out-of-state for public institutions), books and supplies, and weighted averages for room and board and other expenses (weighted by the mix of students staying on campus, off campus and with family), as well as net price (total cost after deducting total federal, state, local and institutional grant aid), for first-time full-time undergraduates for the full academic year. Total aid is the upper portion of each column not covered by net price. Source: IPEDS (2020).

Talking of cost increases over time, though, let’s finish up this section with exactly that, the trends in inflation-adjusted component costs of attendance (Figure 7.19). Room charges have risen just a little slower relative to sticker-price tuition, both having grown more than 1.5 times over almost two decades. This is interesting because room
charges are part of the local housing market, with the implication that they cannot
differ greatly from local market rental rates (to avoid over- or under-subscription).
It turns out that inflation-adjusted median rents grew 1.4 times over this period (US
Census Bureau 2019b), a similar amount to tuition and room rates (noting that these
are broad national census data not tied to university-area markets). Meal charges grew
less rapidly, about 1.3 times, although this increase is above the inflation-adjusted
national average for food away from home of 1.1 times since FY2000 (US Bureau of
Labor Statistics 2019a). In contrast, the inflation-adjusted costs of books and supplies
as well as other expenses has remained essentially flat, increasing slightly before the
recession and decreasing in recent years.

![Figure 7.19. Trends in component costs of attendance expressed relative to their FY2000 amounts in inflation-adjusted dollars, averaged across all types of institutions (using in-state amounts for publics). Source: IPEDS (2020).](image)

The cost of food can become a budget trade-off for low income students, leading to
a much greater prevalence of food insecurity in recent years. National data on food
insecurity are not available, but a recent comprehensive government review estimates
that more than 30% of all students are food insecure (Harris 2019), although other
studies present much larger numbers and another recent study challenges these
high figures (Smith 2019). Campuses have begun to address this issue by opening
food pantries and making sure that students are aware of their eligibility for the
Supplemental Nutrition Assistance Program (SNAP), widely known as food stamps
(Harris 2019).
7.10 How has affordability changed?

Affordability in our context is the net price relative to the ability to pay, which we can index to median family income for trend purposes. This makes sense because substantial portions of financial aid are tied to income-based need. Inflation-adjusted median family income was flat in the decade leading up to the Great Recession, dipped by almost 10% for several years thereafter, and only since FY2016 has it recovered to pre-recession levels near $70,000 per year (Figure 7.20). The median value doesn’t convey the underlying (and widely-documented) further separation in inflation-adjusted income inequality between the lower percentiles (flat trend) and upper percentiles (over 10% growth) of the income distribution since FY2000 (US Census Bureau 2018a). As it happens, median family income increased by about $5,000 over this period, and the net price for public and private institutions increased by roughly the same amount (Figure 7.20) with the familiar pre-recession rise, then fall, and rise again pattern.

![Figure 7.20. Trends in median family income and in net price for four-year public and private institutions, by fiscal year (median family income is for the previous calendar year), in 2016 dollars. Sources: US Census Bureau (2018b) and College Board (Ma et al. 2018).](image)

Looking at net price trends as a share of median family income accounts for shifts in timing and relative amounts (Figure 7.21), showing that the privates have held steady near 35% since rising in the early 2000s, while net price at the publics rose from 12% to about 20% of median family income through FY2013 and it has since remained at that level. Therefore, and this is a big deal because it is contrary to popular perception, university affordability relative to income has remained flat for at least the last seven years, twice that length at the privates.
Like Nobody’s Business

Figure 7.21. Trends in net price as a share of median family income for four-year public and private institutions, by fiscal year (median family income is for the previous calendar year), in 2016 dollars. Sources: US Census Bureau (2018b) and College Board (Ma et al. 2018).

Box 7.2. How Free is Free College?

The lexicon surrounding college affordability has become complicated in recent years, especially around what is meant by “free college” during elections. Here’s a handy guide (Kreighbaum 2019b; Mangan 2019):

- **First Dollar**: program funds applied before grant aid that can then be used for living costs (rare);
- **Last Dollar**: program funds applied after grant aid (most common);
- **Last Dollar Plus**: like Last Dollar, with extra program funds for living costs (rare);
- **Tuition-Free**: program funds cover only tuition;
- **Debt Free**: Tuition-Free with extra funds for living costs, thereby avoiding loans;
- **Debt Cancellation**: program funds applied to reduce or zero-out existing loans for all or for lower-income subgroups with loans.

Some of these options can be expensive, e.g., First Dollar. Yet others can be controversial too, such as Debt Cancellation, which is criticized as unfair by those who’ve just paid off their loans and/or those who worked more during college to avoid accumulating debt.
You might be wondering if students, especially those from low-income families, can offset the net price and cost to families by working part-time during college. Decades ago, when net price was much lower relative to median family income, a part-time job was often an effective solution. Unfortunately, that is no longer the case. A recent study (Anthony et al. 2019) shows that at four-year institutions, a student working ten hours per week at the minimum wage would still be $6,550 short of the net price or, alternatively that the student would need to work twenty-six hours per week to offset the net price (with large differences in both of those figures across states). Unlike a generation or two ago, students and families must now bridge this affordability gap with savings or by incurring debt through loans.

7.11 How much debt do students have at graduation?

“As you walk across campus and see students moving between classes, remember that they and their families took out loans to pay our salaries.” I’ve made this point many times in campus meetings to underscore, even in the large public research university where I work, that we are a tuition-dependent institution and the extent to which we rely on and must serve our students. The reality of paying the net price (i.e., after aid) for attending university, while considerably lower than the sticker price, means that students must foot that remaining bill by working, by using their parents’ savings, and/or by borrowing the money. We looked at student loans for first-time full-time (FTFT) students in Section 4.5, and here’s a quick recap:

- Not all FTFT students have debt and the share who do ranges widely from about one quarter at R1 privates to almost three-quarters at R3-M3 privates, while the share is roughly half at other types of institutions;
- The average loan is just over $7,000 (plus/minus about $1,000 depending on type of school, in FY2016 dollars) for those FTFT students with loans;
- Most student loans are federal loans, but there is a small portion of students, 4–10%, with much larger other loans averaging $10,000 to $20,000 (by type of school);
- Four years at the average loan amount is about $30,000 of cumulative debt for students who have borrowed. I underline again that this kind of number is frequently misquoted and misperceived as the average debt of all students, but because only half of all students borrow, it follows that (if someone truly wants that figure) the average cumulative debt per graduating student is also half, about $15,000;
- The trend in the share of FTFT students borrowing has been relatively flat, increasing slightly after the recession and then decreasing in recent years;
- The amount borrowed has remained flat since the recession for federal and student loans, except strong increases for that small percentage with other types of loans.
Now, instead of FTFT students, we’ll move to the completion of their studies and examine cumulative debt for students that earned undergraduate and graduate degrees. The share of degree recipients with debt and the amount of debt per individual are illustrated in Figure 7.22 (note that these data are from student NPSAS
surveys and are not directly comparable to the institutional IPEDS data in Section 4.5). Starting with bachelor's recipients, at most types of institutions about 60–70% graduate with debt, although that share is 75% at R3-M3 privates and much lower, 43%, at R1 privates. The average debt amount for graduates with debt is quite similar across institution types, $26,000 to $29,000 at the publics and a few thousand more, $28,000 to $34,000, at the privates.

For master's recipients, the share with debt is centered around 50% depending on type of school, but with a large public-private difference in the average debt amount, $32,000 to $45,000 at the publics and $44,000 to $68,000 at the privates. Bear in mind (i) that students may be awarded assistantships for master's degrees in the arts and sciences, but financial aid is less common for professionally-oriented master's degrees that can also be priced higher, and (ii) these debt amounts are accumulated in the two years or less that it takes to complete a master's degree.

Students graduating with a Ph.D. or other research doctoral degree will take four to eight years (some requiring a master's, some not, depending on field) and they are the most likely graduate degree level to be awarded assistantships and other aid. Thus, although the degree takes two to four times longer than a master's, the share of Ph.D. graduates with debt is the lowest for all levels of degree (although it is concerning that this share at R3-M3 institutions is double that at R1 schools). Debt amounts for the generally smaller share of Ph.D. graduates with debt are more than for master's graduates, but not as much as time-to-degree would imply.

Professional practice doctor's degrees include the MD, JD, PharmD, DVM, etc.; 70% or more of these degree recipients have debt on average, and those individuals have the highest average debt amounts of all graduates, approaching $120,000 at the publics and $180,000 at the privates. This level of average debt is breathtaking for those who haven't seen the numbers before. It also highlights the issue of repayment: the starting salary and future earnings of an MD graduate will likely make repayment feasible but starting salaries for veterinarians and several others in this category are under six figures—those individuals will struggle with their debt for many years. We'll cover repayment in the next section.

7.12 What are the rates of student loan repayment?

Repayment rates have slowed in recent years, and they differ by who is paying. The repayment rate is the share of borrowers who are making progress paying down their loans (at least one dollar of the initial balance), measured within a given window (e.g., three, five or seven years) since they entered repayment. Borrowers may enter repayment in a different year than when they left the institution because of a six-month grace period, being granted a deferment for hardship, or for attending graduate school; repayment rates are reported for undergraduate debt (US Department of Education 2019a). Five-year repayment rates by institution type are shown in Figure 7.23 and,
logically enough, they track the corresponding student/family income profiles (see Section 7.3). Repayment rates are lower for those who left the publics (60–75%) than the privates (68–88%), while they are highest for R1 school leavers and lowest for R3-M3 school leavers. For leavers from all types of institution, repayment rates have declined by 5–10% in recent years, especially for those borrowers who left the institution since the recession.

Figure 7.23. Five-year repayment rates on federal student loans by ending fiscal year for two-year averages (i.e., borrowers entering repayment in FY2006 and FY2007 comprise the FY2012 amount, and likewise those entering in FY2011 and FY2012 comprise the FY2017 amount), averaged by Carnegie classification and control. Repayment is defined as paying down at least one dollar of loan principal after five years. Source: College Scorecard (US Department of Education 2019a).

Students who graduate are, as expected, better able to repay their student loans than those who do not complete their degrees (Figure 7.24), with non-completers repaying at rates that are 15–20% lower than completers at the same type of school. Similarly, students who are financially dependent on their families have a better repayment record than those who are financially independent without family resources (Figure 7.24), with a parallel difference of 10–20% between the two groups. Note that these data reflect whether a borrower has paid down at least $1 of the loan within five years; they do not reflect if the loan has been completely repaid or those individuals who begin repayment after five years.

While we are not including for-profit institutions in our analyses, a lot of media attention has been devoted to their repayment rates, which are only about half of those at public and private four-year schools; two-year colleges are in-between (Baum et al. 2018a). Most national reports on student indebtedness and repayment include these
Figure 7.24. Five-year repayment rates on federal student loans for the two-year averages of borrowers entering repayment in FY2011 and FY2012 (i.e., five years ending FY2017), by degree completion status and dependency status, averaged by Carnegie classification and control. Repayment is defined as paying down at least one dollar of loan principal after five years. Source: College Scorecard (US Department of Education 2019a).

other types of institutions where the statistics are quite dismaying. Loans to student’s parents through the Parent PLUS program have been a particular focus of attention, because those loans do not have the same protections as federal undergraduate loans like loan forgiveness and income-based repayment (Kreighbaum 2018; Looney and Lee 2018). As with undergraduates, the data show that large-balance graduate student borrowers attended for-profit schools that tend to have worse repayment outcomes (Lee and Looney 2018). Overall, the growth in borrowers acquiring high debt with low earnings prospects leads to unsustainable levels of indebtedness, that in turn lead to higher costs for the federal loan programs and for students.

7.13 What is going on with textbook prices and spending?

Like rising tuition, “skyrocketing” textbook prices generate considerable consternation that is further confounded by conflated questions and confusing data sources. Textbook prices (and consequent antipathy toward publishers) rather than other course materials have fueled the concerns and drawn most of the attention, so we’ll begin with them.

Two core questions: how much have textbook prices risen, and how much are students spending on them? Curiously, the answers are (i) a lot, and (ii) less and less. The best data on prices are literally part of the CPI (consumer price index): the
Like Nobody’s Business

educational books and supplies component goes back decades, while college textbooks as a subset thereof were broken out in FY2002. It turns out that they track closely, providing a fascinating trend pattern (Figure 7.25). After adjusting for inflation with the overall CPI exactly as we’ve done for other dollar trends, we see that new textbook prices were flat from the 1960s through the mid-1980s, then doubled in price over the next thirty years, and that trend has abated only in the last few years. The other data source for textbook prices is the National Association of College Stores (NACS); its surveys show comparable but slightly lower increases in inflation-adjusted new textbook prices and flat prices for used textbooks (Figure 7.25).

While new textbook prices have climbed, students have been spending progressively less on their overall basket of textbooks and course materials. Three independent surveys all converge on approximately the same number, which after adjusting for inflation is currently about $500 per year, down from about $850 in FY2002 (Figure 7.26). Data for the last five years show that the mix of materials purchased has shifted too. Of the four types, the shares of new and rented textbooks have remained roughly flat, the used textbook share has shrunk, and the digital text share has grown to make up the difference (Figure 7.27). These are noisy survey responses and not national summary data, but this latter switch is nonetheless consistent with an important trend in textbook publishing: unlike paper books, digital textbooks cannot be resold, and students can only purchase them new. While a growing trend in online versus paper
texts is expected nowadays, this shift also happens to be a way for publishers to reclaim a portion of the used textbook market that otherwise does not accrue to them.

Figure 7.26. Student-reported spending on textbooks from three surveys, each averaged across all types of institution, by fiscal year in FY2016 dollars. Sources: Student Monitor/SM (Kestenbaum 2014; Business Wire 2018), NACS (2019b), and NPSAS 2016 (National Center for Education Statistics 2018a).

Figure 7.27. Share of student-reported spending on types of textbooks by fiscal year. Source: Student Monitor (Business Wire 2018).
The curious part of all this is that despite the decades-long increase in textbook prices, students are spending about 60% less on textbooks than they did just over a decade ago. Are they getting the same books for less using other means, or are they just opting out of buying them altogether? It appears to be a bit of both. We saw above that used textbook purchase amounts are down. The same survey shows that while renting expenditures are flat, the percentage of students renting has virtually doubled to about 40% over almost a decade (Business Wire 2018). About half of students responding purchased at least one new textbook; 39% of those bought it significantly cheaper than list price from a mix of sources, 61% from the campus bookstore, 41% from Amazon, and 21% from other bookstores and online retailers (Business Wire 2018). When it comes to all course materials of any type, not only new, 77% of students purchase from the campus bookstore, 42% from Amazon, and 25% from other sellers (NACS 2019b). Only 12% of students (Business Wire 2018) reported that one or more of their classes used an open educational resource (OER). OERs are public domain or freely usable materials, typically online, that include textbooks as well as course modules, videos, tests, etc. While almost half of all faculty members are now aware of OERs, only 13% of those teaching all courses and 22% of those teaching introductory courses require OERs (Seaman and Seaman 2018). About 30% of students do not buy or rent at least one of their required materials, and on average these students skip buying three required texts in one semester; price was cited by 30% as a reason for not acquiring the text, the other responses being that either the individual, the professor or others said it was not necessary (Hill 2015). What do students do without a text? Apparently, 57% just use class notes, 47% borrow from friends or the library, and 19% obtain material illegally (Hill 2015). Consistent with all the above, the number of books bought per student was down from 13 in 2001 to 8.5 in 2013 (Kestenbaum 2014).

In addition to required texts and course materials, students also need to purchase non-required (but practically necessary) technology such as a computer and other school supplies; the FY2019 average spending on these items was $527 (NACS 2019b), which is $496 in 2016 dollars for comparison to the textbook amounts. So, together, student-reported annual spending on books and other supplies total about $1,000 on average. That’s not too different from the roughly $1,200 amount for books and supplies listed in IPEDS that is subsequently republished by the College Board (Ma et al. 2018) and widely-cited by the media and interest groups. However, it’s worth repeating the easy-to-miss distinction between the source of these amounts that I flagged in Section 7.9: the underlying IPEDS amount does not come directly from student-reported amounts and instead is a broad estimate for financial aid purposes made by the institutions.

The vicious cycle of increasing textbook prices and purchase avoidance by students is reflected in campus bookstore sales figures. Campus stores are often owned and run by the institution or its student association, and they are sometimes contracted to a company (NACS 2019a). Although textbooks are just one part of college store sales
(that also include stationery, logo items and apparel, and technology), overall total and per-student sales have declined almost 20% during the decade since the recession (Figure 7.28). About 22% of a textbook’s price goes to the bookstore, of which almost one quarter (6%) is profit after costs, which is a modest amount; about 11–15% of the price goes to author royalties, and the rest goes to the publisher to cover costs and generate a profit (Crockett 2013).

Figure 7.28. Recent trends in inflation-adjusted US college store sales and sales per postsecondary student (Fall enrollment), by fiscal year. Sources: NACS (2019a) and IPEDS (2020).

The textbook publishing industry, after the long run-up of price increases, now finds itself pressured by all the alternative options mentioned above as well as mergers, acquisitions and associated debt necessitated by a rapidly changing market. The recent merger announcement between Cengage and McGraw-Hill will rival the largest publisher, Pearson, with this consolidation resulting in a duopoly that will dominate market share (McKenzie 2019a). A new subscription-based model is emerging, aimed at institutions and departments, with content morphing from static textbook information to digital courseware that includes personalized, adaptive learning technology (McKenzie 2018a; Blumenstyk 2019b).

There is one other dimension to the college textbook business worth mentioning. Faculty-authored textbooks are sometimes assigned by those authors in their own courses, which can create an actual or perceived conflict of interest. Many universities and the AAUP have statements and policies on the necessity of avoiding such conflicts while enabling the material to be used. Remedies include an approval process, eliminating or donating (typically minor) royalties, and discounting the cost of the book (American Association of University Professors 2005; Quintana 2018).