

PART I

*Societal and Demographic Factors
Underlying First-Year Student Success*

CHAPTER I

*Exploring the Role of Affordability in First-Year
Student Access and Persistence*

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Is College Affordable – and for Whom?

Countless discussions – around kitchen tables, throughout statehouses, in Congressional offices, and ingrained within colleges – center on college affordability. While many would issue a resounding “no” in response to questions about whether college is affordable, the true answer warrants far more nuanced analysis. The truth is that college *is* affordable for some, yet remains out of financial reach for others – primarily low-income students.

The common rhetoric claims a college affordability crisis, and this rhetoric is not without merit. College tuition and fees rose 570% between 1982 and 2011, outpacing inflation, wage growth, and even healthcare costs (Reimherr, Harmon, Strawn, & Choitz, 2013). At the same time, financial aid has failed to keep pace, leaving students and their families to bear the brunt of these increased expenses. All students have witnessed this rapid price inflation, but higher income families are better equipped to absorb the costs than are families of modest means. In fact, in 2012, low-income families needed to find a way to finance an amount equivalent to 67% of their family’s annual income to pay for the first year at a public two-year college – *after* accounting for grants and scholarships. To attend a four-year public institution, the burden is even higher, at 86% for low-income students, and college costs exceed 100% of a low-income student’s family income at four-year private nonprofit institutions (140%) and at all for-profit institutions (213%). Students from the highest-income families, although still facing high costs, only need to devote 8% of their family’s income to pay for community college, or need up to 18% to pay for the most expensive option, a four-year private nonprofit college (U.S. Department of Education, 2012).

It is not surprising, then, that college enrollment among low-income students in 2013 was lower than that of their high-income classmates 40 years earlier (49% vs. 64%) (Aud et al., 2010; Kena et al., 2015). For

many low-income students, an inability – real or perceived – to pay college costs is an obstacle that dissuades them from applying to college in the first place. For those who do pursue college, finding and applying to institutions that are a good academic and environmental fit and that also offer affordable net prices – the combination of either low tuition or sufficient financial aid to cover higher tuition – provides its own challenge. Partially because of the financial burden, 60% of low-income students eligible for acceptance into a highly selective institution attend less selective colleges than their qualifications merit, and some forgo college altogether (Bowen, Chingos, & McPherson, 2009).

For some students who enroll in college as freshmen, gaining access to college does not provide a permanent solution to their affordability problems. After students enroll in their first year of college, any number of factors can intervene. Some students' financial circumstances change, and others may have received one-time grants or scholarships for the first year that leave them scrambling to find replacement aid sources to cover rising tuition for later years (Miller, 2015). Furthermore, some of these grants and scholarships come with minimum grade point average thresholds or other academic requirements that can not only influence the program of study a student chooses, but also may leave students without funding midway through their degree programs (Carruthers & Özek, 2013). For many students, paying for college creates an anxiety that continues until the student either completes college or is forced to drop out. Indeed, low-income students graduate from four-year colleges at rates 16% lower than their higher income peers (U.S. Department of Education, 2009).

What Is Affordability?

Before digging deeper into the degree to which students face affordability challenges, it is important to define the term *affordability*. Affordability, in essence, is based upon a comparison of the student's cost of attendance and the student's family and grant resources available to pay those costs. There is no single common definition for college affordability, though we will explore multiple frameworks for understanding this phenomenon.

Affordability is based upon the balance between students' available financial resources and the prices they must pay to attend college. Student resources generally are divided into two categories: income/assets and financial aid. By definition, high-income families have greater income and assets than their low-income counterparts, so low-income students are more reliant on financial aid. However, not all financial aid is targeted to

low-income students. For example, grants that are not need-based, many of which exist at the state and institutional levels, do not consider financial need, and thus may end up supporting students who would be able to pay for college even without grant aid. Need-based grants, however, are targeted towards low- and moderate-income students.

The balance between resources and prices underlies the concept of affordability, and various organizations have attempted to define and quantify the nuances of affordability in concrete ways. For example, in 2015, Lumina Foundation convened an expert working group of college affordability scholars and policy influencers to develop an affordability benchmark to provide guidelines for what makes college affordable. Guided by experts in education and related fields (e.g., housing, health-care, retirement savings), the Affordability Benchmark focuses on what resources families have at their disposal to pay for college. It centers on three components that comprise “the Rule of 10:”

- Students should not be required to pay more than they or their families can set aside for college over the 10 years prior to enrollment.
- Middle- and high-income families can expect to save 10% of their discretionary income during this 10-year period, and use those savings to pay for college.
- Students can afford to work an average of 10 hours per week throughout the calendar year (500 hours per year), and will contribute those earnings to pay for college (Lumina Foundation, 2015).

By defining savings based on a student’s or family’s discretionary income, the benchmark proposes that students with a family income at or below 200% of the federal poverty limit are not able to save money in advance of college, but can still be expected to work ten hours per week. Emerging research assesses the viability of the Affordability Benchmark for various students across different institutions (Poutré, Rorison, & Voight, 2017; Huelsman, 2016; Akers, Dancy, & Delisle, 2017). This ongoing and future research will help to refine the parameters for reasonable college affordability.

Conversely, in 2011, the Education Trust released *Priced Out*, a report that explored college affordability based on charging low-income students the same share of their family income as middle-income students had to pay (Lynch, Engle, & Cruz, 2011). In 2011, the typical middle-income student attending a four-year college devoted an amount equivalent to about 27% of the family income towards college costs. If low-income students were to spend the same proportion of their family income on college

expenses, they would pay \$4,600 per year. The *Priced Out* analysis assessed how many institutions maintained this net price for low-income students, actually served a substantial share of low-income students (30% or more receiving Pell Grants), and had a six-year graduation rate higher than 50%. Only five institutions passed all three criteria that year. These results provided compelling evidence that low-income students face immense hurdles and limited options when trying to access affordable colleges (Lynch, Engle, & Cruz, 2011).

Free or debt-free college proposals and policies provide a third and fourth method for examining college affordability. Conversations about making some or all colleges free or debt-free dominated much of the 2016 Democratic primary debates vis-à-vis college affordability, with several candidates weighing in on the prospect of free college. In addition, federal and state policymakers have offered suggestions for how to eliminate tuition from some or all public institutions. However, the two types of policy differ dramatically.

“Free-college” proposals and “free-community college” proposals, such as the Tennessee Promise, offer free tuition to all qualified students, but do not distinguish benefits based on financial need or account for living costs (Tennessee Promise.gov, n.d.). Effectively, free-college proposals set *affordable* as a zero-tuition guarantee for students of all economic backgrounds. As a result, all students who benefit from these programs do not pay tuition, but students must still find the resources to pay living costs, a challenge that can be substantial for low-income students. Furthermore, most free-college proposals and policies use a “last dollar” design that applies financial subsidies *after* accounting for other aid like Pell Grants. Because the maximum Pell Grant covers a large proportion of tuition at community colleges, Pell recipients actually receive little to no financial subsidy from free community college programs, whereas non-Pell recipients receive large subsidies. One critique of proposals like the Tennessee Promise is that the public funding could be better targeted toward covering tuition, fees, and living costs for those students with the greatest financial need. Another critique is that these proposals generally cover the first two years of public education, which clearly do not remove financial barriers for students seeking to continue their education beyond those two years to earn a four-year degree. These proposals may encourage income-constrained students to attend community college even if qualified for a four-year institution (Cooper & Voight, 2015).

On the other hand, debt-free or no-loan proposals, also promoted by some politicians and institutions, define an affordable education as one

that a student can earn without incurring debt (FinAid.org, n.d.). Unlike free-college proposals, debt-free proposals account for the full cost of college by claiming that students should not need to borrow for any educational expenses. These proposals also expect higher-income students to pay what they can afford towards college costs. Though these proposals are more equity-focused, they suffer from two drawbacks. First, because not all students incur the same costs, it is not as easy – or politically popular – to advertise them as “free college for all.” Second, programs that focus exclusively on low-income students are prone to criticism from middle- and high-income families.

In addition, institutions across the country offer promise programs to help level the playing field for students from low-income families. Although many of these programs have been lauded by policymakers, the media, and the institutions themselves, it is important to note that institutional promise programs have been prone to funding limitations and, in cases like the University of Virginia’s Access UVA program, are not guaranteed from one year to the next.

Clearly, researchers and policymakers consider affordability through a variety of lenses. However, two key themes hold across three of these four affordability frameworks. First, the Lumina benchmark, the Ed Trust framework, and the debt-free college proposals maintain that all college expenses – tuition, fees, room, board, books, and supplies – should be accounted for when evaluating affordability. Second, these three frameworks also set different price points for affordability, based on a family’s ability to pay. The free-college framework is the only one to differ on these fundamental points. Throughout this chapter, we adopt these two key themes for evaluating affordability:

1. Accounting for all college costs, rather than for only tuition and fees.
2. Accounting for family ability to pay.

With these guiding principles and their underlying frameworks in mind, we can explore the level of affordability faced by today’s students.

Key Terms and Data Sources

To measure affordability, we must evaluate the total cost of attendance (COA) for attending college against the resources – grant aid and family contributions – that students have to pay those costs. The United States Department of Education defines cost of attendance as the sum of tuition and fees, room and board (separately for residential and commuter

students living with or without family), books and supplies, and transportation, as well as additional expenses (U.S. Department of Education, 2015a). Each institution calculates a COA and uses it to distribute federal, state, and institutional financial aid. The U.S. Department of Education also calculates an expected family contribution (EFC) for every student who files the Free Application for Federal Student Aid (FAFSA). Although most families do not actually pay the exact EFC, it is designed to account for family financial resources, is used to determine financial aid eligibility, and gives an estimate of family ability to pay.

Two additional commonly used concepts to evaluate college prices are net price and unmet need:

$$\begin{aligned}\text{Net Price} &= \text{Cost of Attendance} - \text{All Grant Aid} \\ \text{Unmet Need} &= \text{Cost of Attendance} - \text{All Grant Aid} - \text{EFC} \\ &= \text{Net Price} - \text{EFC}\end{aligned}$$

Net price represents the amount students need to finance through family contributions, loans, and student work in order to attend college. Unmet need, on the other hand, shows how much financial need students have after accounting for grant aid and for the student's and family's expected contribution (Janice & Voight, 2016). Many students cover their unmet need through student loans.

For this chapter, we evaluate results from the 2011–12 National Postsecondary Student Aid Study (NPSAS:12), a nationally representative sample of college students, to explore how COA, grant aid, net price, and unmet need vary across students and institutions of higher education (U.S. Department of Education, 2012). These data provide a national snapshot on the current state of affordability within the United States, illuminating trends, bright spots, and areas in need of policy or practice intervention.

To examine first-year student enrollment and persistence, we analyzed data from the 2012–14 Beginning Postsecondary Students (BPS:12/14) study, which follows a subset of students from the NPSAS:12 sample who were first-time students during the NPSAS collection year (U.S. Department of Education, 2009). BPS:12/14 completed its first follow-up in 2014, with a second follow-up in 2017. For completion data, we used the prior wave of BPS data (BPS: 04/09), which surveyed students who entered college in 2003–04 and followed up with them in 2006 and 2009.

Our analyses throughout this chapter focus exclusively on dependent students, as more than three-quarters of all first-time students in 2011–12 were dependents. In addition, while independent students face a wide

variety of challenges related to college affordability, the data suggest that the gaps between income quintiles are much narrower for independent students, indicating that most of them have substantial financial need and can be classified as low-income. More than 80% of independent students have incomes less than \$49,000, placing them into the two lowest income quintiles for dependent students (U.S. Department of Education, 2012). Thus we see that independent students face many of the same affordability challenges that we discuss in this chapter for low-income dependent students.

How Affordable – or Unaffordable – Is College?

As discussed, first-year students face different levels of affordability, depending on their family income. Among dependent students, the cost of attendance and net price are higher for high-income students and lower for low-income students, on average. These trends hold largely because high-income students tend to attend more expensive institutions than low-income students do, and because low-income students receive larger total grant awards, on average, driven in part by the substantial federal investment in the need-based Pell Grant program.

However, once family resources are factored into the analysis, we see that college places a far greater financial strain on low-income families than on their high-income counterparts (see Table 1.1). Although the typical first-year dependent low-income student must finance a net price of about \$13,000, half the price that high-income students must pay, low-income students simply have fewer resources from which to draw to pay that price. Even though the net price for low-income students is lower, to cover that price, low-income students must finance an amount equivalent to 103% of their family income for *one year* of college, compared with high-income students, who must spend a more manageable 14% of their family income on college costs for one year. In other words, unmet need is far larger for low-income students. The typical first-year students in the bottom income quintile confront nearly \$13,000 in unmet financial need – *after* accounting for the grant aid they receive and the amount their family can afford to pay. Students in the highest income quintile are far less burdened by college prices. In fact, they have an *overmet* need of more than \$9,000 in their first year, meaning their family resources and grants combined more than cover their college expenses.

Low-income students bear the greatest financial burdens across all sectors of higher education, but the magnitude of that burden does vary

Table 1.1 *Average College Affordability for Dependent Students at All Institutions, by Income Quintile*

Family Income Range	Average Income	Average Cost of Attendance	Average Grant Aid	Average Expected Family Contribution	Average Net Price	Average Unmet Need	Average Net Price as Percent of Average Income
0–\$24,750	\$12,529	\$22,267	\$9,406	\$231	\$12,861	\$12,630	103%
\$24,751–\$49,450	\$35,504	\$23,863	\$9,129	\$1,687	\$14,734	\$13,047	42%
\$49,451–\$80,100	\$64,938	\$25,197	\$6,509	\$7,794	\$18,688	\$10,894	29%
\$80,101–\$117,450	\$96,934	\$26,470	\$5,432	\$16,335	\$21,037	\$4,702	22%
\$117,451 and above	\$184,499	\$32,158	\$5,597	\$36,039	\$25,561	–\$9,478	14%

Table 1.2 *Unmet Need of Dependent Students, by Income Quintile and Sector*

Family Income Range	Unmet Need			
	2-Year Public	4-Year Public	4-Year Private Nonprofit	For-Profit
0–\$24,750	\$7,866	\$11,030	\$18,001	\$24,409
\$24,751–\$49,450	\$7,997	\$11,894	\$19,891	\$24,512
\$49,451–\$80,100	\$4,742	\$10,096	\$18,226	\$23,240
\$80,101–\$117,450	–\$2,241	\$3,981	\$12,053	\$16,309
\$117,451 and above	–\$18,399	–\$12,064	–\$2,521	–\$3,405

(see Table 1.2). Based on unmet need, public community colleges and public four-year institutions are the most affordable options for low-income students (unmet need of \$7,900 and \$11,000, respectively), whereas private nonprofit four-year colleges (unmet need of \$18,000) and for-profit colleges (unmet need of \$24,000) place a greater strain on the budgets of first-year low-income students. Students in the second income quintile, and to a large extent those in the third income quintile, face similar levels of unmet need, whereas the highest income group has more than enough family resources and grant aid to cover college costs in every sector of higher education.

This stark inequity in college affordability exists in spite of federal, state, and institutional grant aid, some of which is offered to help minimize the

burden of paying for college. Need-based grants help address affordability barriers to college access and success, but current policies simply do not do enough to level the playing field for the underserved. Later in this chapter we discuss how federal, state, and institutional policies impact college affordability – and how they can better target the needs of low-income students to combat these very real price barriers to college access and success.

How Do Students Attempt to Navigate Affordability Challenges?

Regardless of the institutions they choose to attend, low-income students are faced with relatively high average net price across all sectors, and often make difficult decisions in order to succeed in college. These decisions pay off for some students, and do not for others. Regardless, students make decisions for very real, relevant reasons, and if equipped with better information, students can make more informed decisions that can lead to better outcomes.

Faced with a strong desire to enroll and succeed in college, but saddled with unmet financial need, many low-income students turn to student loans to pay for the remaining college expenses not covered by grants and scholarships. The federal government offers subsidized loans – for which students are not responsible for paying interest while enrolled – to low- and moderate-income students and offers unsubsidized loans with relatively low interest rates to all students. However, under our framework of evaluating affordability as the relationship between price and family resources to pay, the availability of loans does not make college more affordable, but instead shifts the timing of payment. Student loans may address unmet need in the short term, but they are merely delaying the payment of college costs until after the student has graduated or, worse, left without a degree. Students who do not graduate are still required to repay their student loans, which can make the decision to borrow a justifiably daunting one.

Notwithstanding, a large share of low-income students do take out a combination of federal, state, institutional, and private student loans to finance their postsecondary education (see Table 1.3). With the exception of students attending community colleges, more than half of students in the lowest three income quintiles are taking out federal loans. A substantial proportion of students in the highest income band are borrowing as well, though these loans are likely covering part of the EFC that these students' parents could reasonably be expected to pay. Nearly 63% of the