CHAPTER 1

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

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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

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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, healthcare, 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

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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

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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

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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

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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

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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

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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

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Table 1.3 *Percentage of First-Time, First-Year, Full-Year Dependent Students Taking Out Student Loans, by Income and Sector*

Family Income Range	2-Year Public	4-Year Public	4-Year Private Nonprofit	For-Profit
0–$24,750	18.1%	62.6%	79.6%	81.8%
$24,751–$49,450	16.4%	65.6%	76.4%	90.2%
$49,451–$80,100	28.2%	69.1%	75.9%	87.7%
$80,101–117,450	22.5%	65.3%	68.7%	82.7%
$117,451 and above	22.2%	47.9%	49.5%	67.5%

lowest-income students borrow at four-year public institutions, and even more low-income students borrow at four-year private nonprofits (80%) and at for-profit institutions (82%; U.S. Department of Education, 2012).

Although the proportion of students who rely on loans is troubling, the amount of money they borrow offers insights as well. For students trying to finance bachelor's degrees, four or more years of borrowing adds up quickly. Cumulative student loan debt is at an all-time high. The typical bachelor's recipient who graduated in 2014 amassed nearly $30,000 in student debt, according to The Institute for College Access and Success (TICAS), in 2015. Low-income graduates bear an even greater debt burden at graduation. Of Pell recipients who earned bachelor's degrees in 2012, 84% left their institutions with student loan debt averaging over $27,000 at public institutions, and over $34,000 at private nonprofit institutions. In comparison, 46% of non–Pell bachelor's recipients borrowed, graduating with cumulative debt averaging just under $23,000 at public institutions and just over $30,000 at private nonprofit institutions (Huelsman, 2015). Student loan borrowing has become so prevalent that by 2011, the sum of all student loan debt in the United States exceeded the sum of all credit card debt for the first time (Draut et al., 2011).

In recent years, the federal government has introduced a number of different income-driven repayment plans to help students who graduate with federal student loan debt. Programs such as Pay as You Earn (PAYE), Income-Contingent Repayment (ICR), and Income-Based Repayment (IBR) ensure that borrowers pay a relatively small percentage of their earnings toward their federal loan balances each month, with the balance of their loans forgiven after 20 to 25 years. However, while these repayment

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plans provide important back-end support for borrowers after they leave college, they do not address the root issue of affordability: prices are too high relative to students' financial resources. These plans also do not address the burden of repaying private student loans.

Low-income students, as well as Hispanic and Asian students, tend to be more averse to taking out loans in order to pay for college than White students are, which can hurt their chances for postsecondary success (Calderone, Johnson, & Hare, 2010). This attitude is not entirely irrational, especially given the level of debt required in relation to their family's income. Low-income students who choose not to borrow are more likely to choose to prioritize lower costs over other institutional criteria, including academic rigor and degree offerings. This decision not to borrow may have a negative impact on degree attainment for this group of individuals, particularly for students who choose community colleges instead of four-year institutions based on costs alone (Cunningham & Santiago, 2008).

Low-income students use a variety of additional strategies to pay for college, regardless of whether or not they choose to take out student loans. Many low-income students choose to work excessive hours to make ends meet. In the 2011–2012 academic year, 61% of students in the lowest income quintile worked, and the average working low-income student put in over 25 hours per week at one or more jobs. A similar share of the highest income students also had jobs, but they worked an average of approximately 20 hours per week (U.S. Department of Education, 2012). A growing body of literature on working college students suggests that students who work more than 15 to 20 hours per week are likely to suffer academically, as this work takes time away from their studies and self-care (Adelman, 2006; Perna, 2010).

Other students may choose to drop to part-time status, which may lead to a reduction in their grant aid, thus increasing their unmet need. In addition to this added potential financial burden associated with part-time attendance, other consequences of part-time attendance have been well documented. Part-time students are far less likely than those attending full-time to persist through graduation, and have a much longer time-to-degree if they do finish (Adelman, 2006; Chen & Carroll, 2007). Students who base the decision to attend part-time solely on financial factors may be doing themselves a disservice, but do so only because they feel it is the best option given daunting financial circumstances.

In addition to the very real barriers presented by college prices and unmet need, low-income students face additional financial challenges that make enrolling in and completing college very difficult. Although nearly

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every college and university in the United States is federally mandated to report its own COA, research indicates that over half these institutions underestimate nontuition costs (Kelchen, Hosch, & Goldrick-Rab, 2014). And oftentimes, low-income students have additional financial burdens that extend beyond the federally defined cost of attendance. Family circumstances can present more immediate challenges to college affordability and financial stability. Prior research suggests that students from low-income families are often expected to contribute to family finances to finance expenses that are not included in COA calculations, and some students report using grants or loans to help support their families. These expenses can include purchasing school supplies and clothes for younger siblings and buying groceries for the family. These individuals may feel perfectly comfortable helping provide for their family members, but this experience nonetheless imposes an additional financial burden that low-income students are less capable of shouldering than their more affluent peers are. Contributing to the household demands significant financial investment as well as investment of nonmonetary resources such as students' time (Rorison, 2014).

Before even enrolling in college, many low-income students also struggle with applying for financial aid. One of the most-cited barriers to financial aid is the FAFSA, which all students seeking federal financial aid must complete. Most critics of the FAFSA have noted the timing of the application, as well as the length and complexity of the form itself (Burd, 2015). However, the U.S. Department of Education has recently implemented a series of new features to the FAFSA to mitigate those concerns. An important upgrade to the FAFSA is the introduction of skip logic for the online version of the form and a feature that allows students to import their tax records through the IRS Data Retrieval Tool (DRT). Implementation of skip logic has reduced the estimated time it takes to complete the FAFSA by more than 30 minutes, helping address the criticism that the form is too long and asks redundant questions of some students (Field, 2015). Similarly, the IRS DRT reduces the need for students to answer questions on the FAFSA that they already answered on their tax forms. As of October 2016 students are able to use prior-prior year (PPY) tax data to complete the FAFSA, which allows them to apply for aid – and use the DRT – in the fall, as opposed to having to wait for their parents to file taxes and fill in the FAFSA information manually (Field, 2015). One major benefit of PPY is that, if used, it enables students to learn about their financial aid eligibility earlier in the college application process, allowing them to factor financial aid prominently into their college decisions. In addition, the

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earlier timeline of PPY allows all students the opportunity to use the IRS Data Retrieval Tool feature in the FAFSA, which is not possible for students who file their FAFSA before their current-year tax returns have been uploaded to the tool. Despite these improvements, the FAFSA form is still criticized for its length, but absent a complete overhaul of the formula used to assess financial need and federal, state, and institutional financial aid application processes, additional streamlining may be more complex.

Even after students successfully file a FAFSA and matriculate at the institution of their choice, the road to receiving financial aid – in the first year and beyond – is not without barriers. Once students receive their financial aid packages, they oftentimes must interact with the institution's financial aid administrators (FAAs). From making adjustments to students' aid packages to assisting students with student loan entrance counseling (when applicable), financial aid administrators play an important role in facilitating access for students. The literature on student/FAA interactions is mixed, but suggests that FAAs have a number of different responsibilities that preclude them from giving as much individual, quality attention to students as may be ideal (Burdman, 2005). Furthermore, once students are enrolled, their interactions with financial aid administrators vary widely, but are more likely to be infrequent and of lower quality, given the priority on serving entering students (McKinney & Roberts, 2012).

Many of the challenges low-income students face in learning about financial aid, completing the FAFSA, and working with their financial aid administrators stem from information barriers. These students often attend K-12 schools with limited resources, where counselors have inadequate time to give individualized attention to each student and have inadequate training to ensure that students are equipped to complete college admission and financial aid applications (Vargas, 2004). Students from low-income families are often the first in their families to attend college, and as a result, do not have family or community networks to leverage in lieu of school counselors throughout the college search and application processes (Choy, 2001). In addition, high school students whose parents attended college appear to be more likely to discuss issues of financial aid with their parents rather than struggle to understand the topic on their own (De La Rosa, 2006).

The federal government has taken steps in recent years to address these financial aid information gaps. The Higher Education Opportunity Act, signed into law in 2008, requires all institutions to make net price calculators available on their websites to help students understand what they likely will need to pay. However, these net price calculators often require

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students to input detailed financial information – to which they often do not have easy access – to get an estimated net price (TICAS, 2012). In 2012, the U.S. Department of Education introduced a new federal Financial Aid Shopping Sheet that institutions can use voluntarily to help students compare institutions' costs in a common format. Findings from a qualitative evaluation of the Shopping Sheet suggest that while the document has many helpful elements, parents and students found its directions to be unclear and were critical of its failure to break out the direct costs, e.g., tuition and fees, from indirect costs, e.g., living expenses (JBL Associates & National Association of Student Financial Aid Administrators, 2013). In September 2015, the U.S. Department of Education released a revamped College Scorecard website in an effort to better promote overall transparency about institutional performance, including a number of indicators related to net price, borrowing, and student loan repayment. As the Scorecard is still relatively new, little is known about how low-income students are using its data to help inform their college choices.

How Does Affordability Impact College Access for First-Year Students?

Low-income students tend to enroll in different colleges than their higher income classmates, and affordability likely is one reason why. Results from analysis of the 2012–14 Beginning Postsecondary Students (BPS) survey show that the most frequent college choice for first-year, low-income, dependent students is community college, where 42% of beginning low-income dependent students enroll. Another 28% begin at public four-year colleges, 17% at for-profit institutions, and only 11% attend private nonprofit four-year colleges. Enrollment trends among the highest-income students are dramatically different. They are most likely to begin at a four-year public college (48%); 34% attend a four-year nonprofit college, only 16% attend community colleges, and a mere 1% begin at a for-profit institution. These higher-resourced students are about three times as likely to attend a private nonprofit college or university as their lowest income peers (see Table 1.4).

A variety of factors contribute to this income stratification across colleges and universities. Certainly academic preparation plays a role, as our K-12 system continues to be plagued by inequities that provide low-income students with the least access to rigorous coursework (Bromberg & Theokas, 2014, 2016). However, preparation does not tell the full story. Affordability also is central to low-income students' college attendance patterns. Low-income students often attend colleges that are less selective

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Table 1.4 *First-Year Student Enrollment Distribution, by Sector and Income Quintile (Dependent Students)*

Family Income Range	2-Year Public	4-Year Public	4-Year Private Nonprofit	For-Profit	Other
0–$24,750	42.1%	28.2%	11.1%	17.1%	1.5%
$24,751–$49,450	41.3%	31.8%	15.3%	10.5%	1.1%
$49,451–$80,100	41.8%	35.9%	16.7%	4.9%	0.7%
$80,101–117,450	35.9%	41.9%	19.6%	1.9%	0.6%
$117,451 and above	16.4%	48.3%	33.7%	1.2%	0.4%

than their academic credentials suggest they qualify for, and this trend is true for the highest-achieving students as well as those with more modest qualifications (Baum, Ma, & Payea, 2013). As discussed earlier and shown in Table 1.2, community colleges and public four-year institutions offer the lowest cost of attendance, net price, and unmet need for low-income students, so it is no surprise that they enroll in these types of institutions in large numbers. On the other hand, even high prices at private institutions are manageable for students in the highest income quintile – and to a large extent those in the fourth quintile – opening a wider array of college opportunities for these higher-resourced students.

The actual prices and sheer ability to pay heavily influence these enrollment trends. However, the different ways in which students and families think about college affordability also play a role. In combination with the true dollars-and-cents burden of college prices, differences in perceptions about affordability and understanding of price structures also can impact postsecondary enrollment across income groups. We provide four general classes of student approaches to college enrollment and affordability:

1. *The College Knowledgeables*: Students, regardless of income, who have a full understanding of college costs and available financial aid resources and use the information they have to make informed decisions. Most of the students who fall into this category are likely to come from high-income families, and are thus less likely to face affordability challenges.
2. *The Sticker-Shock Undermatchers*: Students from low-income backgrounds who may think that college is not affordable, when it really is, through financial aid. These students may rely on institutions' "sticker prices" to make their decisions, not understanding that financial

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aid – such as the federal Pell Grant and state and institutional grants – can reduce the student's cost of attendance substantially.

3. *The Make-It-Work Optimists*: Students, often from low- or moderate-income backgrounds who may think that certain colleges are affordable, when in fact the student will need to take on large amounts of debt or work long hours to pay the net price. These students select expensive institutions that may or may not provide a long-term return on investment.
4. *The Disgruntled Afforders*: Students from middle- and high-income families who think college is unaffordable for them, when it is not. Although college prices continue to rise, these families have the resources to pay, but see the prices as unreasonable.

The ways in which students and families perceive college affordability highly influence where and when a student will decide to enroll in post-secondary education. Using finances as a decision factor can manifest very differently for students with varying degrees of advice and knowledge on the college process. Those with more advice and knowledge – the College Knowledgeables – might consider affordability when making their decision, but will explore the net price rather than only the sticker price and likely will weigh prices against expected outcomes at different institutions. However, those without that advice and knowledge – the Sticker-Shock Undermatchers – may focus more on sticker price of a program, which may not be indicative of the true price or the value the students will receive in return for their investment. They often are swayed towards community colleges, where students may pay lower tuition, but have lower chances of graduating and higher average unemployment rates, even if they do complete an associate's degree (Ginder & Kelly-Reid, 2013; U.S. Department of Labor, Bureau of Labor Statistics, 2016).

The Make-It-Work Optimists thoroughly understand the value that a college degree can provide them and their families, but may not have enough information to distinguish which institutions are most likely to offer a quality education at a reasonable price. In some cases, they are willing to go to great lengths to earn that college degree – even if it means that the student or parent takes on large amounts of debt. For example, these students may be captivated by catchy marketing and unsubstantiated promises of a high payoff for their degree from for-profit institutions, and may end up attending a truly unaffordable college.

Finally, the Disgruntled Afforders can afford to attend nearly any college or university, but are frustrated by the high prices and often voice

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Table 1.5 *Six-Year Attainment Rates for Dependent Students, by Sector of First Institution*

	No Degree	Attained Certificate	Attained Associate's Degree	Attained Bachelor's Degree
2-Year Public	61.1%	6.2%	16.2%	16.5%
4-Year Public	32.4%	1.4%	3.5%	62.7%
4-Year Private Nonprofit	26.2%	1.0%	3.7%	69.0%
For-Profit	50.5%	31.9%	12.5%	5.1%

their concerns to institutional and political leaders, influencing financial aid policy. For these families, paying for college may not come without some sacrifice and a need to plan and save, but paying the costs is certainly feasible.

Unfortunately, cost and perception drive college decisions and concentrate students from different socioeconomic backgrounds into different types of postsecondary institutions. They maintain persistent societal inequities in terms of who attends college, who graduates, who accumulates debt, and in what state individuals enter the workforce and postcollege society.

How Does Affordability Impact College Success for First-Year Students?

Enrollment stratification is of critical importance because the institutions at which students enroll greatly influence their chances of success. Although a large share of the lowest-income first-year students enroll in either community colleges (42%) or for-profit institutions (17%), these institutions typically have lower graduation rates than public and private nonprofit four-year institutions (see Table 1.5). Whereas 69% of students who enrolled at a four-year private nonprofit institution in 2003 and 63% of students who enrolled in four-year public institutions earned a bachelor's degree within six years, only one-third of students who started at a community college earned an associate's degree or transferred to a four-year institution and earned a bachelor's degree within that six-year span. The picture for for-profit institutions is even bleaker. Only 18% of those who start at these institutions earned an associate's or bachelor's degree within six years. However, nearly one-third of students who started at a for-profit institution did earn a one-year certificate within six years.

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Notwithstanding, affordability clearly plays a role in students' ability to complete college, as price barriers make it exceedingly difficult for low-income students to access the colleges and universities where they have the greatest chance of succeeding, and price hurdles can lead students to drop out before completion. In the case of for-profit institutions, which come with both high price tags and poor outcomes, students may believe that their low selectivity makes these schools the only viable option for enrollment, thus justifying the expensive price tag (Rorison, 2014).

Revisiting our classes of students, we expect the College Knowledgeables and the Disgruntled Afforders, because of their likely ability to afford to pay for college and because of their access to four-year public and private nonprofit institutions, to be well-represented among bachelor's degree recipients. The Sticker-Shock Undermatchers, by definition, have enrolled in institutions that are less selective. If they end up in community colleges, they may thrive and earn associate's degrees, but the odds are stacked against them for earning a bachelor's degree. Outcomes of the Make-It-Work Optimists are slightly less certain. Because these students are willing to put everything on the line in order to succeed in college, they may seem destined to succeed. However, the reality of their situation is that large sums of cumulative debt, heavy work schedules, and low institution-level completion rates are risk factors for noncompletion.

How Can Federal, State, and Institutional Policies Promote Affordability in Ways that Advance Access and Persistence?

The federal government, states, and institutions all play important roles in promoting or limiting affordability for students, mostly through tuition and financial aid policies. Research clearly shows that investments in need-based grant aid increase access and success for low-income students, and each of these actors distributes grant aid resources to students, giving them the chance to improve student opportunities. However, some policy actors and practitioners are doing a better job of directing funds towards the students who most need the support.

At the federal level, the foundational financial aid program is the need-based Federal Pell Grant program, which was first created in 1972 as the Basic Educational Opportunity Grant (Pell Institute for the Study of Opportunity in Education, 2016). Its primary goal is to provide need-based financial aid to low-income undergraduate college students, as well as to limited, specific types of postbaccalaureate students (U.S. Department of Education, 2015b). This well-targeted program is the first piece in the

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financial aid puzzle for about 8.6 million undergraduates (U.S. Department of Education, 2015c). Unfortunately, despite recent increases to the maximum grant, the purchasing power of Pell Grants has fallen over the last few decades (U.S. Department of Education, 2015d) to a 40-year low that only covers about 30% of the average cost of attending a public four-year college and even less at private four-year colleges (Reich & Debot, 2015). These grants simply have not kept pace with rising college prices and can no longer guarantee affordability for low-income Americans as they did in the 1970s and early 1980s. As a result, many low-income students rely increasingly on state and institutional aid, as well as on loans to cover college costs (The Reimagining Aid Design and Delivery Consortium for Higher Education Grants and Work-Study Reform, 2014).

States influence affordability in two distinct ways – through direct funding to institutions that help keep tuition low and through student grant aid. State appropriations have been declining for over 30 years now (Cahalan, Perna, Yamashita, Ruiz, & Franklin, 2016). In fact, declining state appropriations often are cited as the primary driver behind rising college prices at public colleges. However, a few states, such as North Dakota, Wyoming, and Nebraska, have bucked this trend and have made efforts to devote more resources to higher education in the years following the end of the Great Recession (State Higher Education Executive Officers Association, 2016). Most states also offer grants to students, and can use these grant dollars to directly benefit low-income students. In 2013–14 academic year, the National Association of State Student Grant Aid Programs (NASSGAP) reported that 9 states offered only need-based grants, 39 states offered both need-based and non–need based grants and only 1 state – Georgia – offered only non–need based grants (NASSGAP, 2014). The range of awards was also quite broad; New Hampshire did not offer any grant aid of any type, while South Carolina offered an average of $1,888 per full-time equivalent (FTE) undergraduate enrollment (NASSGAP, 2014). However, many states have made substantial shifts in the amount of funding that is dedicated to merit aid programs, as opposed to need-based aid programs. Between the 2003–04 and 2013–14 academic years, non–need based grant aid grew by 28% nationwide, signaling an increased priority on awarding financial aid based on merit (NASSGAP, 2014). Although there are many priorities facing states, improving equity should rise to the top of the list. States can use need-based grant aid to help make college affordable for students with the greatest financial need. However, states like Georgia, which offers grant aid exclusively based on grades and standardized test scores, are part of a larger trend moving away from need-based grant aid and

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toward policies that are not targeted at helping low-income students. The Georgia HOPE Scholarship, which is funded by lottery revenues, takes a generous pot of state funds and directs it almost entirely to the middle class (Finney, Perna, & Callan, 2012). The HOPE Scholarship perpetuates inequity when, if awarded based on need, it could level the playing field substantially for low-income students. Nationwide, non–need based aid programs like HOPE have gained political popularity, and have grown significantly. Between 2003 and 2013, non–need based grant awards more than doubled in 14 states (NASSGAP, 2014).

A final way in which states can have an indirect impact on college affordability is through their outcomes-based funding (OBF) formulas. Not all states have OBF policies, but by 2015, 35 states had either implemented OBF policies or were developing them (Snyder, 2015). Although outcomes-based funding has its fair share of both champions and critics, the practice of basing state higher education appropriations on student outcomes is likely going to continue for many years. State policymakers can use their OBF formulas in equity-minded ways, which will encourage institutions to serve their low-income students well. For example, if a state adds a measure rewarding institutions that enroll and graduate low-income students to its OBF formula, it will apply pressure to the institutions to ensure that the students are given the supports – financially and otherwise – to be successful. If the state does not craft its OBF policy carefully, however, it can easily go in a direction that encourages institutions to either not admit a large number of low-income students or to not work to graduate them at the same or higher rates as they do higher-income students. OBF systems should include equity measures to preserve access and promote affordability while also providing clear signals to institutions to prioritize completion.

Finally, institutions – and in many states, systems – play a pivotal role in ensuring that affordability is not an insurmountable barrier to access and persistence. Institutions and systems decide how to distribute their own grant aid, and in many cases they could be directing it more effectively towards needy students. In 1995, public four-year institutions spent over twice as much on low-income students as on those from high-income families. But, by 2012, they were spending almost 20% more on high-income students than on low-income college-goers. By 2012, private nonprofit colleges were spending almost twice as much on high-income students (U.S. Department of Education, 1996, 2004, 2008, 2012).

Recent research suggests that private nonprofit institutions are using their financial aid to compete with peer institutions by enticing highly

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qualified – and often middle- to high-income – students to enroll. Low-income students end up on the losing end of this "merit aid arms race," as institutional grant aid that could be used to meet their need is going to students who would be able to attend without the grants (Burd, 2014). This phenomenon is not exclusive to private institutions. In the 2014–15 academic year, approximately one-third of all financial aid awarded by public research universities went to non-need scholarships, some with the goal of attracting out-of-state students to generate additional tuition revenue. Eight of these public universities spent every dollar of their institutional aid on non-needy students (Burd, 2016). Institutions that award institutional aid to students without financial need are making deliberate choices about how to use their available resources, and in the process are signaling that equity is not an institutional priority. For public institutions, which in some cases use taxpayer dollars for institutional aid, this is particularly troubling.

Despite some of these problematic trends, there are many colleges and universities that are committed to improving affordability for low-income students. In 1999, Princeton University became the first institution to offer low-income students financial aid packages that did not include loans. In the years since, dozens of other institutions – mostly highly selective, wealthy not-for-profits – have followed suit in an attempt to remove financial barriers for students with family incomes below a certain threshold. However, research suggests that these programs are not well known by students, as the institutions generally do not do an effective job of promoting them (Perna, Lundy-Wagner, Yee, Brill, & Tadal, 2010). Nonetheless, the emerging research on no-loan programs suggests that these policies have modestly increased the proportion of low-income students enrolling at these institutions (Hillman, 2012).

Other colleges and universities have prioritized not only making college affordable for low-income students, but also fulfilling a responsibility to serve a large proportion of these students. For example, there are the five institutions that the Education Trust identified as having met three benchmarks – maintaining a net price for low-income students under $4,600, serving a student body of which 30% or more received Pell Grants, and having a six-year graduation rate above 50%:

- University of North Carolina at Greensboro
- CUNY Queens College
- California State University, Fullerton
- CUNY Bernard M. Baruch College
- California State University, Long Beach

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The combination of these institutions' relatively low tuition and fees and relatively generous state and/or institutional need-based grant programs made attaining a four-year degree possible for low-income students, illustrating the institutions' commitment to promoting equitable outcomes for all students, regardless of income (Lynch, Engle, & Cruz, 2011).

Berea College presents a special case of an institution that has a clear, unwavering focus on eliminating affordability barriers for low-income students. A small liberal arts college in Kentucky, Berea boasts a first-year class comprised almost entirely of Pell Grant recipients (91% in 2013–14), with every single student receiving a full scholarship to cover the balance of tuition and fees. Because Berea has a very low average net price ($1,990, to cover living expenses) only 28% of first-year students at Berea took out a student loan, with the average loan totaling $1,713. Most impressively, Berea not only serves large numbers of low-income students, but serves them well, with a first-year retention rate of 84% and a six-year graduation rate of 66% (U.S. Department of Education, 2016). Berea's leadership attributes this success to their mission to serve low-income students, targeted academic supports, and use of work requirements and community-building opportunities to provide students with a sense of belonging on campus (Lynch, Engle, & Cruz, 2011). Berea College provides compelling proof that public institutions and incredibly wealthy universities are not the only institutions equipped to make college affordable for low-income students.

Conclusion and Suggestions for Improving Student Success

Affordability is a major obstacle to access and success for first-year college students, particularly for low-income students. Although some high-income students may perceive it to be unaffordable, most of these students can find the means to pay for college. For low-income students, affordability issues are real. Within our national higher education landscape, certain sectors – private nonprofit and public four-year institutions – have significantly better completion rates than community colleges and for-profit institutions, so the institutions to which students have access will play a major role in those students' outcomes. It is not acceptable to expect the poorest families to pay more than 100% of their income to send their children to the colleges where they are most likely to succeed, or to expect these families to send their children to less expensive or less selective colleges with less hope of earning a degree, despite the students having worked hard to become qualified for more selective colleges. Many low-income students enroll in institutions with high net prices and will use student

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loans to cover their unmet need, but in doing so, they are only delaying their payments until they have graduated or dropped out of college.

Beyond actually paying for college, low-income students face additional obstacles to affordability. Many low-income students face additional financial pressures away from school that strain their wallets, as well as their time to focus on academics. Before students even make it to college, they must overcome information barriers to complete a FAFSA that – while much improved in recent years – can still be daunting. Once students enroll, they oftentimes must ensure that they understand their financial aid packages and reapply for aid for subsequent years, with or without the help of financial aid administrators.

Federal, state, and institutional policies must work in concert to make college affordable for our neediest students. Tuition and fees continue to increase across all sectors. Need-based grant aid was once a great equalizer for ensuring affordability for low-income students, but the purchasing power of the federal Pell Grant has not kept pace with rising college prices. States and institutions generally have not fully filled in the gaps, though some states and institutions are doing a better job than others in this regard. States and institutions that choose to award grants to students without financial need are only perpetuating equity gaps, and must think critically about how they can better serve low-income students. State policies, such as outcomes based funding, may have the potential to create incentives for states to focus on equity. Institutions can look to peers like Berea College and to those featured in research and policy reports as models to learn from when doubling down efforts to keep prices low.

There are many ways in which institutions can support first-year students on the road to persistence, and ultimately, graduation. A number of institutions have demonstrated how using data can help to identify roadblocks that students face, both in terms of general trends and in triaging individual students' challenges (Rorison & Voight, 2016). Academic advisors, student affairs administrators, and financial aid officers can also play important roles in increasing first-year student persistence. Many students from low-income families need guidance to navigate the financial obstacles they face in college. Helping students create and adhere to budgets is one helpful strategy (Rorison, 2014). In addition, it is critical to understand that working long hours while enrolled can harm a student's chance of persistence. A wide body of research on this topic notes the potential consequences of working beyond 15 to 20 hours per week (Adelman, 2006; Perna, 2010). Many students may feel that they need to have the income from working long hours, but they must understand the trade-offs and

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should have knowledgeable mentors on campus to provide that guidance and to work to develop solutions.

College affordability is a subject that will continue to feature in policy debates indefinitely, and rightly so. Until the day when every qualified low-income student can afford to enroll in a college or university that provides a quality education with a strong likelihood for timely completion, we must continue to craft federal and state policies and institutional practices that strive to better serve all of America's students.

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