Developing a Best Fit Framework for Postsecondary Success

November 2023

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Many high school students aspire to earn a college degree regardless of background. These students see college as an important lever for economic mobility. Individuals with some college or an associate degree earn approximately 14 percent more than those with only a high school diploma and those with a bachelor’s degree earn approximately 65 percent more (U.S. Bureau of Labor Statistics, 2015).

However, racially and socioeconomically minoritized students face systematic barriers to college access and completion. Despite the prevalence of college aspirations, prior research shows that only 20 percent of Chicago Public Schools (CPS) freshmen earn a bachelor’s degree within ten years. Moreover, only 10 percent of Black men, 18 percent of Black women, and 14 percent of Latino men will likely reach that milestone (Nagaoka & Seeskin, 2019). Along the lines of income, a 2016 study by the Pell Institute found that just 15 percent of students from the bottom socioeconomic quartile earn a bachelor’s degree within eight years of graduating high school, compared with 60 percent of students from the top quartile (Calahan, Perna, Yamashita, Ruiz & Franklin, 2016).

The decision of whether and where to attend college is a critical input into whether students ultimately reach their goal of degree attainment. Three primary factors interact as students decide if and where to attend college:

- **Academic match** – how the academic credentials of a student align with the selectivity of the college or university.
- **Social Fit** – The environmental aspects and additional supports that a student is looking for in a postsecondary institution based on personal preferences and identity.
- **Affordability** – a student’s financial ability to pay for the net cost of attending a postsecondary institution, incorporating the difference between a student’s financial resources (including financial aid) and the full cost of attendance.

These factors are important because they influence not only a student’s perceived and actual college options, but also their likelihood of applying, enrolling, persisting, and ultimately graduating. Prior research has shown that academic match or attending the most selective institution possible based on a
students’ academic record (often referred to as “academic match”) is associated with higher completion rates (Bowen et al., 2009; Roderick et al., 2011). More selective institutions tend to be better resourced and thus better positioned to provide the kind of student supports known to lead to high retention and graduation rates (Goolsbee et al., 2019). Social fit and developing a sense of belonging has also been shown to be important for students’ well-being and persistence in college, particularly for underrepresented students who too often confront racism, microaggressions, and more subtle cues in academic setting that signal one’s group is not normative there, such as numeric underrepresentation on a college campus (Banks & Dohy, 2019; Moragne-Patterson & Barnett, 2017; Murphy, Steele, & Gross, 2007). And the rising cost of college has made affordability a key consideration for many students deciding whether to enroll and stay in college. These increasing costs have been felt most acutely by students from families with lower household incomes, Black and Hispanic students, and first-generation college students. These students are not only likely to have fewer familial resources to cover the rising cost of tuition, but also tend to attend under-resourced high schools that are unable to provide as much support to students in navigating the confusing mix of federal, state, institutional, and private financial aid options (The Partnership for College Completion, 2019).

**CONTRIBUTION AND METHODOLOGY**

CPS has also made significant strides in its approaches to supporting students with their college application and selection process in recent years, with specific focus on supporting students in navigating the academic match, social fit, and affordability aspects of college choice. At the same time, the college landscape that students face continues to evolve. Admissions criteria at many institutions have become increasingly selective, the costs of college have continued to rise, and available financial assistance has lagged behind. Concerns about accruing large amounts of debt have led some to ask if enrolling in college is even worth it.

Given all of this change, this paper is intended to provide an update on our understanding of how academic match, social fit, and affordability interact to influence college application, enrollment, and persistence. To this end, the research team drew on both quantitative and qualitative data as follows:

1. An analysis of CPS student records, as well as data from Naviance, the National Student Clearinghouse (NSC), CPS’ Senior Exit Questionnaire (SEQ), the Integrated Postsecondary Education System (IPEDS), the U.S. Census, student financial aid award letters, and an estimation of the net costs of all the colleges students applied to and enrolled in for the class of 2018 (n=27,148).
2. Semi-structured interviews with CPS alumni who attended City Colleges of Chicago (CCC) focused on student background (K-12 education, parent/guardian information, SES); college readiness (course taking, high school support, other resources), college choice/social fit (what college characteristics were important), and obstacles and financial considerations (EFC from FAFSA, loan options) (n=51).

KEY FINDINGS

Our mixed methods study led researchers to unveil nine key findings on the various phases of the college journey, spanning from aspirations to access, application, enrollment, and persistence. These findings serve as a compass for understanding the barriers, trends, and disparities that influence the educational trajectory of CPS students and provide a basis for informed discussions and targeted interventions.

College Access and Application
A college degree remains the goal for the vast majority of CPS students, but barriers continue to thwart this goal for many. While 81 percent of the class of 2018 intended to enroll in college when they were seniors, only 57 percent enrolled in college within one year of their high school graduation, and 43 percent returned to college for a second academic year (76 percent of those who initially enrolled).

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All CPS Seniors in SY18</td>
<td>100%</td>
<td>27,148</td>
</tr>
<tr>
<td>Seniors who applied to at least one college</td>
<td>76%</td>
<td>20,734</td>
</tr>
<tr>
<td>Students who enrolled in college within one year</td>
<td>57%</td>
<td>15,489</td>
</tr>
<tr>
<td>Students who persisted to the second year</td>
<td>43%</td>
<td>11,796</td>
</tr>
</tbody>
</table>
While most students applied to at least one college, many expressed a desire for more time and support in applying to a set of colleges that would be a social, academic, and financial fit. Roughly 76 percent of the class of 2018 applied to at least one college. This suggests that most of the 81 percent of seniors who report that they intend to enroll directly in a post-secondary institution following their high school graduation are completing this critical step to making that goal a reality. On average, students from the class of 2018 submitted six applications. However, interview respondents stressed that while they understood the basic outlines of the college application process, they did not have a good sense of how much time the process would take and wished they had developed a well thought out list of schools to apply to to ensure that they would have had multiple strong options when it came time to choose where to enroll.

Students with higher GPAs and test scores submitted more college applications overall, and more applications to institutions that were an academic match. Students who based on their high school GPAs and test scores were likely to be admitted to more selective colleges, applied to more schools overall and more schools that were an academic match than their peers with lower GPAs and test scores. This suggests that targeting application support to students in the academic middle could be a valuable investment of district and non-profit resources.

**Average Number of All Applications and Match/Overmatch Applications by Student Selectivity Level (n=8,922)**

Students from low-income backgrounds submitted a majority of applications to institutions that would be considered unaffordable even after accounting for expected financial aid. Drawing on data from IPEDS and students’ estimated household income based on data from the census, the research team estimated the annual net cost (tuition and fees less financial aid) students would likely face at each
institution they applied to. Moneythink, a national non-profit organization focused on college finance, defines net costs of over $7,000 unaffordable for students who are Pell eligible. Based on this metric, 67.5 percent of applications submitted by Pell eligible CPS seniors were submitted to institutions that are unaffordable.

**College Enrollment**

Over half (62 percent) of students who enroll in college do so at a school that is an academic undermatch. Students for whom English is a second language, those who do not complete the FAFSA, and whose high school credentials gave them access to less selective four-year colleges are most likely to enroll in an undermatch institution. A substantial share of this undermatch was driven by enrollment in two-year colleges.

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**Percent of 2018 CPS Seniors Who Enrolled in Undermatch vs. Match/Overmatch Colleges in Total and by Subgroup (n = 8,922)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Undermatch</th>
<th>Match/Overmatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=8,922)</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Asian (n=425)</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Black (n=3,154)</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>Hispanic (n=4,552)</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>White (n=677)</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Other races (n=134)</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Female (n=5,099)</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Male (n=3,822)</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Free or reduced lunch (n=7,560)</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Complete FAFSA (n=8,030)</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>No/Incomplete FAFSA (n=876)</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Pell ineligible (n=2,975)</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>Pell eligible (n=5,650)</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Grade repeater (n=213)</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>English as a second language (n=500)</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Special education (n=716)</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Homeless/STLS (n=535)</td>
<td>65%</td>
<td>35%</td>
</tr>
</tbody>
</table>

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Black students were substantially less likely to enroll in college in the year following high school than their peers. Only half of Black students enrolled, compared to 78 percent of Asian students, 68 percent of white students, and 59 percent of Hispanic students. Similarly, roughly half of male students (49.7%) enrolled in college in the year following high school compared to 64.3 percent of female students. This suggests that targeting college enrollment support to Black young men, in particular, might be an important strategy to consider.

Students, especially those who undermatched, enrolled in institutions where they would face lower net costs than the other institutions they applied to, suggesting that financial considerations are driving undermatch. Financial considerations, including a desire to remain debt-free, were the driving factors for students who enrolled in CCC despite having the academic credentials to access more selective institutions. As one student put it, “It’s like the first thought is what school best fits me financially? It’s not, what school best fits me for my degree or for my personal choice? Unfortunately, it is financial.”
College Persistence
Students who enrolled in a school that was an academic match or overmatch were more likely to persist to a second year of college than students who enrolled in a school that was an academic undermatch. Overall, 77 percent of students who enrolled in a college that was a match or over match compared to 69.4 percent of students. The persistence advantage associated with enrolling in a match institutions held for students access levels. However, students who, based on their high school GPAs and test scores had access to somewhat selective colleges and less selective four-year colleges saw the biggest difference in persistence rates by match/undermatch enrollment.

Percent of Undermatch vs. Match/Overmatch Students Who Persisted to the Second Year in Total and by Student Selectivity Level (n=8,922)

Institutions that charge high net prices also have higher rates of persistence, suggesting students face a tradeoff between the costs of college and the likelihood that they will receive a degree. Student interview respondents stressed the importance of affordability and avoiding debt in their college decisions. However, institutions with lower the out of pocket costs also had lower year-to-year persistence rates. This may in part be driven by the fact that less expensive institutions also have fewer resources available to support students through to completion.
Black students who enroll in Historically Black Colleges and Universities (HBCUs) are more likely to persist in college than Black students who enroll in non-HBCUs. Over 78 percent of Black students who attended an HBCU persisted to a second year of college compared to 67.3 percent of Black students who attended non-HBCUs. These differences in persistence rates could be driven by a variety of differences between these two types of institutions, including campus cultures that promote greater social belonging, greater institutional resources, and the fact that all HBCUs that CPS students attended were out of state. Interestingly, the same relationship did not hold for Hispanic students who attended Hispanic Serving Institutions (HSIs).
DISCUSSION AND NEXT STEPS

Findings from this report demonstrate that the perceived and actual costs of college are constraining students’ college choices, too frequently pushing them to either not enroll in college or to enroll in colleges where they may be less likely to persist and ultimately graduate. To address these challenges, we recommend the following:

Providing students information about the costs of college earlier in the college application process. Our research suggests that once students have received their acceptance letters, they are too often deciding between schools that are an academic match or social fit and schools that are affordable. By considering cost earlier in the application process, students may be able to identify schools to apply to that are both the best fit for them individually and likely to offer the financial support needed to make them affordable.

Target additional financial resources to students who stand to benefit most. Our research shows that students who, based on their high school grades and test scores, have access to somewhat selective and less selective four-year colleges tend to face the sharpest tradeoffs between academic match and affordability. By better understanding the unmet financial needs among CPS graduates and which students are likely to face the steepest costs, funders could craft financial supports that enable students from low-income households to attend the colleges that are the best fit for them regardless of cost.

Simplifying the financial aid process. Our country’s decentralized and complicated system of attaining financial support for college-going is an added barrier for students and their families, who must navigate a complicated financial aid application process and sort through inconsistent communications from schools and scholarship programs that often obscure the true cost of college. Future work by our research team will focus on exploring how financial award letters themselves might be standardized and streamlined to ensure that students can make sense of the financial supports schools are offering.

A growing research literature, including a randomized controlled trial conducted by IEL of the One Million Degrees program, finds that providing comprehensive support services can dramatically improve outcomes for students attending less selective institutions (Weiss et al., 2019; Sommo et al., 2018; Evans et al., 2017; Bertrand et al., 2022). Expanding access to these supports should be a central component of ensuring that every CPS graduate enrolls in a college that is both affordable and where they have the support they need to succeed.
**Glossary**

**ACADEMIC MATCH**
How the academic credentials of a student align with the selectivity of the college or university.

**AFFORDABILITY**
A student's financial ability to pay for the net cost of attending a postsecondary institution, incorporating the difference between a student's financial resources (including financial aid) and the total cost of attendance.

**CHICAGO PUBLIC SCHOOLS (CPS)**
The fourth-largest school district in the United States.

**CITY COLLEGES OF CHICAGO (CCC)**
The most extensive community college system in Illinois, whose colleges offer associate degrees, certificates, free courses for the GED, and free English as a second language courses.

**COLLEGE ENROLLMENT**
Enrollment at a two-year or four-year college within nine month of high school graduation.

**CPS MATCH GRID**
A grid that displays the minimum GPa and SAT/ACT scores that CPS graduates would need for a high likelihood of acceptance to certain selectivity classifications of colleges.

**EXPECTED FAMILY CONTRIBUTION (EFC)**
An index number used to determine a student’s eligibility for federal student financial aid.

**FREE APPLICATION FOR FEDERAL STUDENT AID (FAFSA®)**
A form completed by current and prospective college students in the United States to determine their eligibility for student financial aid.

**LEARN.PLAN.SUCCEED. (LPS)**
A CPS high school graduation requirement intended to help guide students in reaching postsecondary success.

**MATCH**
A student’s GPA and SAT/ACT scores meet a school's admission criteria and are similar to those of the average incoming freshman in this category of schools.

**OVERMATCH**
A student’s GPA and SAT/ACT scores do not meet a school’s admission criteria are lower than those of the average incoming freshman in this category of schools, or the school is a “selective institution” that admits a small percentage of the students who apply for admission.

**UNDERMATCH**
A student’s GPA and SAT/ACT scores exceed a school’s admission criteria and those of the average incoming freshman, and the school is one in which a student is very likely to be accepted.

**PERSISTENCE**
Students who directly enroll in a two-year or four-year college within nine months of high school graduation and are still enrolled at any point during the following academic year.

**SOCIAL FIT**
The environmental aspects and additional supports that a student is looking for in a postsecondary institution based on personal preferences and identity.
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