

# Financial Constraints & Collegiate Student Learning: A Behavioral Economics Perspective

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Financial constraints are a major barrier to college completion for many students. This paper examines the impact of financial constraints on college student learning outcomes, using a behavioral economics perspective. We find that students with financial constraints are more likely to be at-risk, have lower GPAs, and are more likely to drop out of college. These findings suggest that financial constraints have a significant negative impact on college student learning outcomes.

degree.<sup>2</sup> Socioeconomic disparities in college completion are pronounced and growing. Over half of the youth born into the top income quintile earn a bachelor's degree by age twenty-five compared with fewer than 10 percent of youth born into the bottom income quintile.<sup>3</sup>

Historically, much of the focus on improving student success once enrolled in college has been on students' academic experience, including several essays in this volume that address the classroom experience. In other work, both policy-makers and researchers have pointed to developmental education as an impediment to student persistence and completion. Two-thirds of community college students enrolling in 2003–2004 took at least one remedial course, as did about 40 percent of students enrolling at public four-year institutions.<sup>4</sup> Yet the evidence on the effectiveness of remedial courses is mixed. Some studies find that students who take remediation are more likely to persist in college,<sup>5</sup> while others find null or even negative effects of remedial courses.<sup>6</sup> Furthermore, disparities in college completion remain even upon controlling for academic achievement.<sup>7</sup>

In parallel, there have been numerous initiatives aimed at improving academic advising to increase completion rates. Coaching and mentoring programs yielded more consistent results than remediation at improving student performance and persistence, though advisors often address myriad student needs, not just promoting academic engagement.<sup>8</sup> Many community colleges have also invested in developing “structured” or “guided” pathways for students that include specialized course plans that help clarify for students what courses will count toward their intended degree or transfer path, as well as increased advising and monitoring of student performance to trigger early interventions.<sup>9</sup> While there exists a correlation between structured pathway participation and student persistence, few research studies have captured the effects of these innovations.

More recently, there has been growing recognition that making college affordable to students does not on its own ensure that students will have the financial resources to complete postsecondary education. While the Pell Grant and numerous state grants are renewable, students may lose aid because they do not maintain sufficient academic performance, because they fail to reapply for aid each year, or because they take too many courses that do not count toward their degree and use up their aid eligibility before they graduate. Even for students who maintain their aid and use it efficiently, rising college costs mean that many students face gaps between their grant aid and the cost of attendance, which students may have to fill through a combination of loans, work, and family resources. Furthermore, many students face a host of costs not directly related to pursuing their degree— transportation, child care,

food— that they may not be able to cover through financial aid and income they earn while in school. Low-income students also arrive on campus with fewer insights into the academic resources available to them and often struggle to feel a sense of belonging among their more advantaged peers, which hampers their ability to engage with their studies.

While large, structural policy changes are necessary to combat many of the challenges students encounter in their pursuit of a postsecondary credential, insights from the behavioral sciences also provide a lens through which researchers, practitioners, and policy-makers can understand how students move through the postsecondary system. Over the past fifty years, numerous studies in behavioral economics, neuroscience, and social and cognitive psychology have explored how individuals make decisions, particularly under uncertainty. Recently, higher education scholars have applied lessons from these disciplines to better understand how students and their families make decisions about the investment in a college education. In this essay, we explore how behaviorsm[(Wha6.eh.i2avestmenthelp )0.5 (ctitioners, and polnd )0.5 (secently)75



examined the longer-run outcomes of students from different classrooms with similar academic achievement at the elementary level. The researchers found that the students at the top of their class have higher test scores, have more confidence, and are more likely to pursue science and technology careers compared with students with similar academic performance but that had joined higher-achieving classes in which they were at the bottom of their immediate peer group.<sup>21</sup> In higher education, particularly for courses with heterogeneity in average performance across course sections or discussions, similar peer effects may manifest as similarly performing students encounter different average peer environments.

One particularly powerful heuristic that policy-makers and businesses fre-

higher depending on how much individuals are earning. While anyone can opt-in to the income-based repayment plan, due to individuals' strong preference for the default option, many students who would benefit from the flexible and often lower payments under income-based repayment end up starting with the standard, fixed monthly repayment plan, and given the status quo bias, few students switch. Federal interventions have proven that targeted outreach sharing information about income-based repayment plans and particularly messaging that highlights loss aversion can increase take-up of the income-based plans, though advocates argue that setting it as the default repayment option would be more effective.<sup>28</sup>

**R**esearch on the psychological effects of scarcity inform why low-income students and their families may have an even harder time engaging with the necessary steps to maintain financial aid, remain enrolled, and succeed in college. When Congress established the Pell Grant in 1972 to ensure that financial barriers would not prevent academically prepared students from enrolling in college, the average award covered nearly

prior to the harvest, suggesting that financial stress impedes individuals' ability to access their various cognitive resources and knowledge.<sup>32</sup> In the college context, one experiment found that when college students were prompted to think about the financial burden of college, they performed worse on cognitive tasks.<sup>33</sup> Interestingly, when students were reminded of the financial burden of college— the costs— but concurrently prompted to think about their future occupation— the benefits— this cognitive impairment was lifted, sug-

low visibility and may not effectively reach students.<sup>42</sup> This combination of limited time on campus, limited attention because of other demands in their lives, limited access to advising, and ineffective institutional communication channels may mean that students are simply unaware of opportunities to earn guaranteed admissions to four-year universities in their state.

In addition to these large factors affecting student engagement and access to advising, low-income, adult, and student parents also face challenges in individual course engagement. When it comes to course success, the broad strokes formula is straightforward: show up to class, pay attention, and study.<sup>43</sup> Insights from behavioral sciences help explain why students in general might not complete these steps. For example, time-inconsistent preferences might sway a student to sleep a few additional hours after an overnight shift rather than go to class.<sup>44</sup> But additional responsibilities (such as a full-time job) and costs (such as children) outside of the college context introduce other obstacles to success and exacerbate behavioral responses to these challenges. For instance, student parents need to secure another adult to watch their children during class; 60 percent of student mothers and 38 percent of student fathers are single parents, requiring them to find other family members



can also personally answer a host of questions their child might have about academic success strategies), parents of low-income college students often lack the information necessary to advise their children. In addition, students in a community college setting may not have peers with high levels of faculty interactions and course engagement to anchor their behavior to.<sup>48</sup>

**S**ince the early 2000s, there has been broad recognition among educators, researchers, and policy-makers that informational and behavioral barriers associated with completing the FAFSA can impede college-ready, financially eligible students from receiving need-based federal or state financial assistance for postsecondary education.<sup>49</sup> Ten percent of college freshmen who would be eligible for means-tested financial aid do not fill out the FAFSA, and other academically prepared high school students may not make it to college because they do not complete the FAFSA and thus do not receive aid that would make college more affordable for them and their families.<sup>50</sup>

Awareness of the barriers created by the FAFSA has led to numerous initiatives to simplify the application, to make the process of applying for aid

students at residential colleges and universities are often living away from home for the first time and are no longer as closely connected to school counselors or other mentors on whom they may have relied for assistance applying for financial aid. The lack of regular connection with family, professional support, or mentors may mean that reapplying for financial aid is less at the top of students' minds. Even for students who remember that they need to refile the FAFSA, the lack of access to trusted sources of assistance may mean that students indefinitely put off FAFSA refiling in favor of more demanding or immediate tasks. This is particularly the case among students new to college, who may have limited attention to devote to FAFSA refiling amidst an array of new academic and social commitments. The behavioral challenge of refiling their FAFSA is likely to be particularly daunting for students at community colleges. Advising resources at community colleges are often severely limited and students typically have to work through confusing bureaucracies to get one-on-one academic or financial counseling.<sup>52</sup> The nonresidential aspect of community college also translates into students spending less time on campus than do their peers at residential four-year institutions, making it more difficult to find time to meet with financial aid support staff. These obstacles contribute to Pell Grant recipients at community colleges being almost ten percentage points less likely to refile their FAFSA than their peers at four-year institutions, holding constant other student and institutional characteristics.<sup>53</sup> In addition to the direct complexities and behavioral barriers associated with refiling the FAFSA, students may not maintain financial aid because they do not believe they are still eligible for financial support. More than half of all Pell Grant recipients report not reapplying for financial aid because they thought they were no longer eligible.<sup>54</sup> This may be due in part to institutions informing students that they are not maintaining satisfactory academic progress (SAP). In order to maintain eligibility for federal financial aid, students typically have to maintain a 2.0 GPA or higher and complete at least two-thirds of the credits for which they enroll. Yet SAP requirements may not be communicated clearly or proactively to students when they first matriculate to college, and, while enrolled, they may not receive timely updates that could serve as early indicators that they need to access additional academic support like tutoring. As a result, students may not understand the link between their academic performance and their ongoing access to financial aid.

is at risk of not meeting SAP requirements because their GPA is too low. The authors find mixed evidence on how failing to meet SAP requirements affects students' persistence in or completion of college, but the interplay of academic per

as a sign of weakness and confirmation of their self-doubts about belonging

students and institutions that have experienced the biggest drops in per-pupil appropriations over the past decade. We caution, however, that the mixed effects of performance-based funding suggest that policies that differentially target institutions by student composition or student outcomes often have unintended consequences for equity and the types of credentials colleges encourage students to pursue.<sup>68</sup>

In addition to increased state appropriations in public higher education institutions, the federal government has the ability to increase investment in and availability of federal financial aid programs. The federal government has made some progress on this front, recently restoring “year round Pell Grants” (YRP), which allow recipients to access up to 50 percent of their annual award for summer studies (for a total academic year use of 150 percent of an award). Quasi-experimental research shows that YRP availability results in increased summer enrollment, higher associate’s degree graduation rates, and greater benefits for older students.<sup>69</sup> However, to the point that students often struggle to refile the necessary paperwork to access fall/spring semester federal financial aid, low-income students and students enrolling part time or living off campus may struggle to connect with financial aid offices to access YRP aid, motivating additional interventions to increase awareness of the program. States, localities, and institutions also have a role to play in providing financial aid to supplement federal investments, with many merit-based programs and place-based full-tuition “promise” programs positively affecting student enrollment and graduation.<sup>70</sup>

States and institutions also have opportunities to invest in targeted support programs and offer additional advising resources to students to mitigate the costs of college enrollment and increase the likelihood that students will succeed in the classroom. Programs such as the Accelerated Study in Associate Programs (ASAP) at the City University of New York (CUNY) community colleges combine institution-level investments in intensive advising and structured pathways with student financial support (such as subway cards, textbook assistance, and tuition waivers) that have significant effects on students’ persistence and degree attainment, as measured in a large-scale randomized controlled trial.<sup>71</sup> While access to high-quality advising can lead to substantial improvements in students’ postsecondary outcomes,<sup>72</sup> many college advisors are overworked and unable to address all students’ needs, and advising resources are often particularly limited at the broad access public institutions attended by most students.<sup>73</sup>

There are also some state policies that, at face value, target improving on-time graduation and students’ academic engagement but have unintended consequences. Excess credit hour (ECH) state policies act as a “stick” incentive



found that sending students postcards about peer tutoring programs on campus resulted in a 23 percent increase in tutoring attendance over the control group, with most students induced to attend multiple tutoring sessions.<sup>81</sup> The intervention was low-cost, at about \$4 to \$15 per student, but while the intervention succeeded in increasing student take-up of tutoring services, there was no effect on students' grades.<sup>82</sup> Behavioral interventions that address students' time-inconsistent preferences in signing up for tutoring can effectively change behavior, but the effectiveness of these interventions is limited by the quality of the services students are nudged to participate in.<sup>83</sup>

Improving student learning and the value of the college experience requires multifaceted solutions, including targeting policies that less obviously affect students' daily course engagement. The rising costs of college, challenges acquiring and maintaining aid, the changing landscape of who goes to college and where, and the vast inequality and psychological stress students experience at even the most well-resourced schools all point to policy solutions that improve the financial well-being of students so that they may fully dedicate themselves to their studies.

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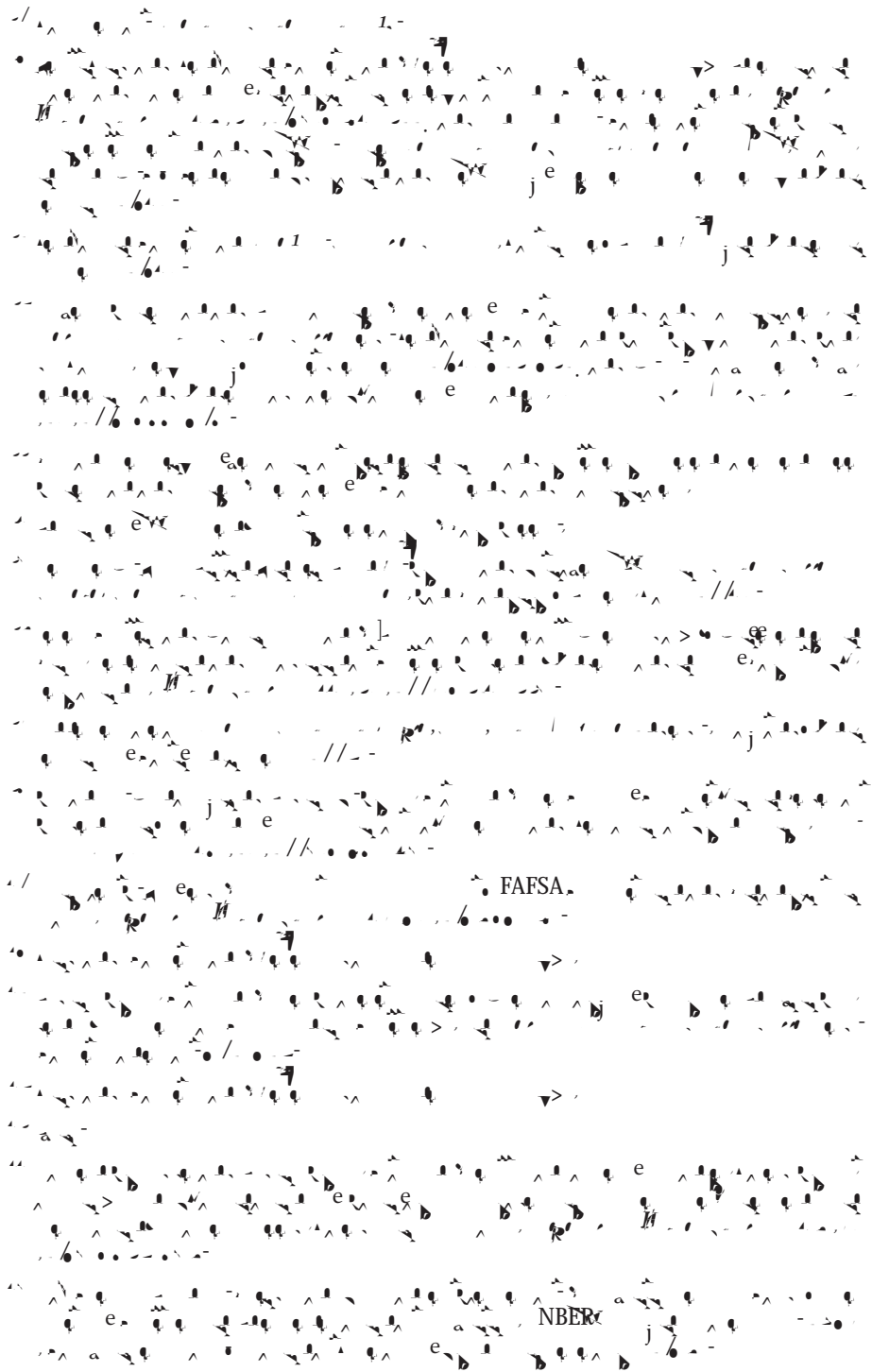
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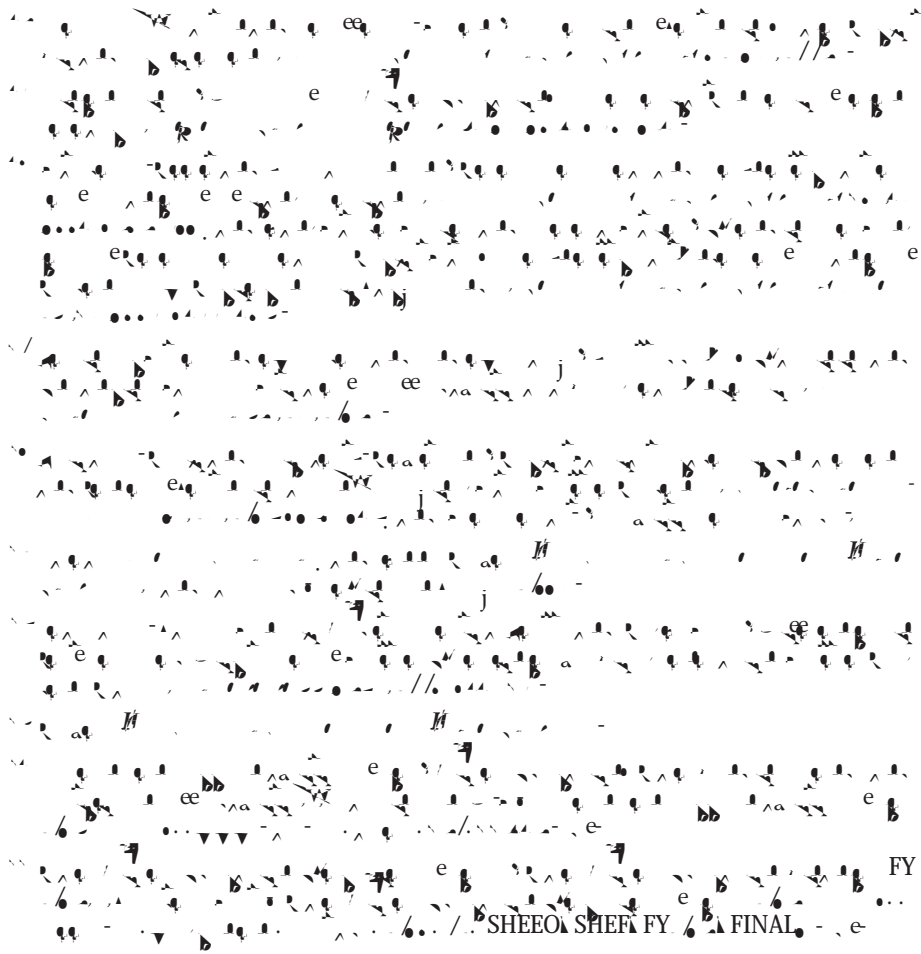


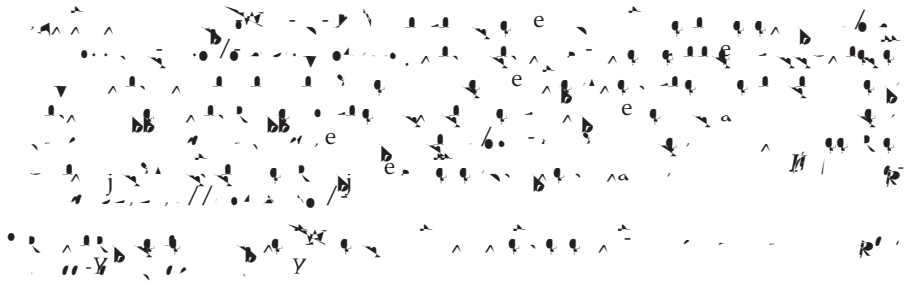
The image displays a complex musical score, likely for a large ensemble or orchestra. It consists of approximately 10 staves of music, each filled with a dense array of notes, rests, and various symbols. The notation is highly detailed, featuring many small notes, some with stems and flags, and several larger symbols that could be articulation marks or performance instructions. The overall appearance is that of a highly technical and intricate musical composition.

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