

SIMPLIFYING BARRIERS ALONG THE BRIDGE TO COLLEGE

While past approaches to helping students transition to college have focused on increasing financial aid, the college application process itself presents a barrier to college access. Relatively low-cost programs to simplify this process and support students through this transition can increase college enrollment and persistence.



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KEY RESULTS:

- Making the application process easier and more convenient to complete can increase college enrollment and persistence. Relatively inexpensive interventions can achieve substantial impacts.
- Personalized assistance and fee waivers are key elements of effective programs designed to smooth the application process.
- Merely providing generic information about college is typically not enough to encourage college enrollment. However, timely and specific reminders, like text message reminders to admitted students about tasks required for matriculation, can help students enroll in college at higher rates.
- Students with limited access to other supports benefited the most from support with the transition to college.
- Most students who enrolled under these programs stayed in college after matriculating.
- Social norms shaped student decisions on college preparation.

Whether to go to college, where to go to college, and what to study in college are important decisions that high school students face. These choices shape where people will live, who their friends and colleagues will be, how they will contribute to society, and how they will earn a living.

While a wide range of evidence suggests that a college education leads to large benefits, such as higher earnings, lower unemployment, and better health, growth in the number of students completing college has slowed over the last decade. At the same time, disparities in college enrollment by family income have increased. As of 2015, only 12 percent of low-income youth in the United States completed bachelor degrees by age 24, compared to 58 percent of youth from the highest income quartile.¹

Many students, especially low-income students and those who will be the first in their families to attend college, face multiple barriers to college access. Many academically qualified students who express interest in attending college do not complete all of the necessary steps required to enroll in college. Some students do not apply for the financial aid for which they are eligible, others do not submit college applications, and yet others are accepted to college but ultimately do not complete required pre-enrollment tasks.

In order to attend college, students must navigate a complex application process. This process can include written applications, standardized tests, high school course requirements, letters of recommendation, interviews, and application fees. Students in financial need must also apply for financial aid. The US federal financial aid application for college, the Free Application for Federal Student Aid (FAFSA), requires students to answer over ninety detailed questions. Once accepted, students must complete an assortment of matriculation and financial aid paperwork, register for classes, and pay fees and tuition. This process is highly complex, and yet many students do not receive much support navigating the application and enrollment process and overcoming barriers along the way. Moreover, low-income students typically have less access to college counseling and school-based support than their wealthier peers. Underrepresented minorities face additional barriers, including segregated high schools and both implicit and explicit discrimination. Barriers can also compound throughout the process, especially for low-income, minority, and first generation college students.

In light of these issues, an emerging body of evidence suggests that relatively inexpensive interventions that simplify the college application process and provide personalized guidance can substantially increase college enrollment and persistence. Effective interventions can help students navigate institutional barriers and overcome the common tendency to focus too much on the present or top-of-mind concerns. The findings from six randomized evaluations highlight that students' decisions about postsecondary education are highly sensitive to the degree of support and information received, the cost of applying, and the social context.



EVALUATIONS

This bulletin reviews five randomized evaluations of interventions designed to improve college access and persistence in the United States and Canada and one randomized evaluation of the influence of social norms on academic decisions.

Researchers tested a variety of programs designed to provide support at each stage of the college application and enrollment process. For example, tested programs provided mailings on college options, one-on-one or classroom-based application assistance, individualized assistance on financial aid forms, text message reminders about required steps, and/or fee waivers for applications. Researchers tested the impact of combined and separate interventions, such as school-based workshops with fee waivers versus without fee waivers, to better understand what works and why. Across these studies, interventions varied widely in the degree of personalization provided—some programs provided generic information about college or financial aid, others sent customized information and reminders, and yet others provided direct in-person assistance (see call out boxes for examples).

Table 1 summarizes the six randomized evaluations, numbered (1) through (6), included in this bulletin. More information about the motivation for and details of each intervention is included in the appendix.

EXAMPLES: GENERIC INFORMATION WITHOUT SPECIFIC ACTION STEPS

- Letter from the New Hampshire Community College System highlighting the benefits of college and providing a link to the online application (2)
- Printout to encourage students to complete the FAFSA, including personalized financial aid predictions based on information from tax returns and tuition prices of nearby colleges (1)

EXAMPLES: DIRECT PERSONALIZED ASSISTANCE

College and financial aid applications

- Weekly meetings between a high school senior and an undergraduate mentor for advice and assistance in selecting schools to apply to and completing college applications (2)
- Three school-based workshops with a customized online platform to help students select schools they would likely be eligible for, find application websites, calculate predicted financial aid, and complete financial aid applications (3)
- One-time, individual financial aid assistance from a tax professional to transfer information from participants' tax returns into financial aid forms and then help participants complete remaining questions (1)

Matriculation requirements

- Outreach from undergraduate peer mentors during the summer before college to offer support with the college transition and ask about completion of required enrollment steps (5)

EXAMPLES: CUSTOMIZED INFORMATION WITH TIMELY AND SPECIFIC REMINDERS

College and financial aid applications

- Semi-customized mailings with information about college options, including information on average graduation rates for a few colleges, timely and customized reminders about application requirements, and explanations of online college-search tools (4)
- Semi-customized mailings with personalized information about net costs after expected financial aid for a few colleges, as well as information about the financial aid application timeline (4)

Matriculation requirements

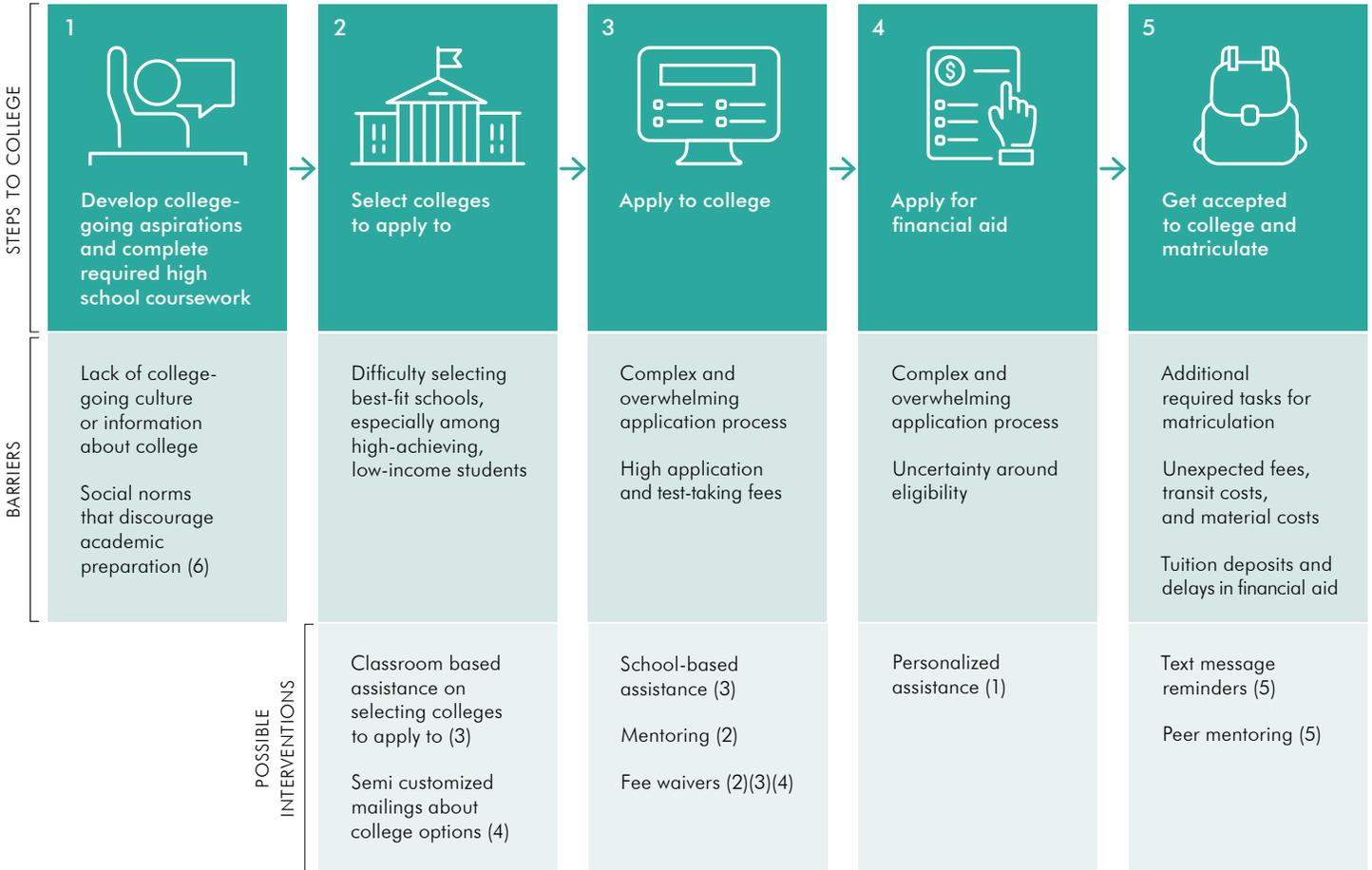
- Ten automated text messages during the summer before college to remind students of tasks required for matriculation and connect them to an advisor or school counselor who could provide individualized assistance if necessary (5)

¹ "Indicators of Higher Education Equity in the United States." 2017. University of Pennsylvania's Alliance for Higher Education and Democracy and the Pell Institute for the Study of Opportunity in Higher Education. https://www.ahead-penn.org/sites/default/files/Indicators_of_Higher_Education_Equity_2017.pdf.

EVALUATIONS

FIGURE 1. POTENTIAL INTERVENTIONS TO ADDRESS BARRIERS TO APPLYING FOR AND ENROLLING IN COLLEGE

Many students face multiple challenges to day-to-day academic success, including under-resourced high schools, low expectations from teachers, lack of self-confidence, competing responsibilities at home, hunger, and violence in communities. On top of these factors, many specific barriers exist within each step of the complex college application process. Researchers evaluated several programs designed to help students overcome these barriers and succeed in each step of the transition to college.



WHY USE RANDOMIZED EVALUATIONS TO STUDY COLLEGE ACCESS?

Randomized evaluations can be used to show which programs work, which work best, and why. When programs, such as personalized FAFSA assistance, are randomly assigned to some students, as if through a lottery, researchers can compare outcomes for students who receive assistance with those who do not. Because they are randomly selected, students who receive assistance are statistically the same, on average, as their peers who do not receive assistance

across observed and unobserved measures—including family income, race, test scores, and intangible factors such as motivation in school. Therefore, researchers can attribute any difference in outcomes for the two groups of students to the FAFSA assistance rather than to some other factor. When implemented well, randomized evaluations produce credible estimates of a program’s impact.

EVALUATIONS

TABLE 1. EVALUATIONS OVERVIEW

INTERVENTION COMPONENTS	RESEARCH TEAM	YEAR	PARTNERS	TARGET POPULATION	COST (EXCLUDING ANY FUTURE FINANCIAL AID)
Individual FAFSA application assistance or information on college options and costs (1)	Bettinger, Long, Oreopoulos, and Sanbonmatsu	2008	156 offices of H&R Block, a tax-preparation company, in Ohio and North Carolina	Low-income students (high school seniors financially dependent on parents and financially independent college applicants)	\$88 per student for individual application assistance
College application coaching, fee waivers, and (for some cohorts) cash bonuses; or generic letters about college options (2)	Carrell and Sacerdote	2009–2014	20 large New Hampshire public high schools	High school seniors interested in college who have made little or no progress on applications by mid-year	\$300 per student for coaching program
School-based application assistance with online tool and (for some cohorts) fee waivers (3)	Oreopoulos and Ford	2011–2012, 2013–2014	86 high schools with low college-going rates in Ontario, Canada	High school seniors at schools with low college-going rates	~\$200 per student
Semi-customized mailings about college options, predicted net costs of college, and application timelines with fee waivers (4)	Hoxby and Turner	2009–2010 (pilot), 2010–2011 (pilot), 2011–2012	N/A (Researchers created the Expanding College Opportunities program in the US)	High-achieving, low-income high school seniors	\$6 per student, not including the fee waiver
Text message reminders on tasks required for matriculation or outreach from peer mentors (5)	Castleman and Page	2012	Dallas Independent School District in Texas; uAspire in Boston, Lawrence, and Springfield, Massachusetts; Mastery Charter Schools in Philadelphia, Pennsylvania	College-intending high school graduates	\$7 per student for text message reminders, \$80 per student for peer mentor program
Public or private sign-ups for free online SAT prep course (6)	Bursztyn and Jensen	2013–2014	4 public high schools in low-income neighborhoods in Los Angeles, California	11th-grade students	~\$200 per student for the online prep course

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FIGURE 2. PERSONALIZED APPLICATION ASSISTANCE, TYPICALLY IN CONJUNCTION WITH FEE WAIVERS, INCREASED COLLEGE ENROLLMENT AND PERSISTENCE. IN CONTRAST, GENERIC INFORMATION ABOUT COLLEGE ALONE WAS OFTEN NOT ENOUGH TO INFLUENCE ENROLLMENT DECISIONS. THE MAP BELOW SUMMARIZES THE RESULTS FROM EVALUATIONS 1–6.



- OHIO AND NORTH CAROLINA (1)**
Personalized assistance on the FAFSA substantially increased FAFSA-filing rates, need-based aid received, and college enrollment and persistence. Information alone had no impact (1).
- NEW HAMPSHIRE (2)**
Mentoring during the college application process increased college-going rates, especially for women. The mentoring program also increased the likelihood that women, but not men, would persist in college. Mailed college information with an option to have transcripts sent to colleges in New Hampshire and a link to the online college application had no impact (2).
- ONTARIO CANADA (3)**
School-based assistance, including a customized online tool and fee waivers, increased application rates and college enrollment (especially in two-year colleges). A less customized version of the program also increased application rates but had no impact on college enrollment (3).
- UNITED STATES (4)**
Semi-customized mailings with college information and fee waivers caused high-achieving, low-income students to apply to more colleges (especially more selective colleges). Students were admitted to and enrolled in colleges with higher graduation rates and higher instructional and student-related spending (4).
- DALLAS, BOSTON, PHILADELPHIA, LAWRENCE, SPRINGFIELD (5)**
Text message reminders about matriculation requirements increased enrollment in Lawrence and Springfield but not in Dallas or Boston. Outreach from a current college student during the summer before matriculation increased eventual enrollment in four-year colleges but not two-year colleges in Boston, Philadelphia, Lawrence, and Springfield (5).
- LOS ANGELES (6)**
Student choices are highly dependent on social norms. In non-honors classes, students were less likely to sign up for a free SAT prep course if they were told that their decision would be shared with classmates (as opposed to kept private). Students who took both honors and non-honors classes were less likely to sign up if they were told their decision to sign up would be shared with non-honors peers and were more likely to sign up if they were told their decision would be shared with honors peers (6).

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1. PERSONALIZED APPLICATION ASSISTANCE, TYPICALLY IN CONJUNCTION WITH FEE WAIVERS, INCREASED COLLEGE APPLICATIONS, ENROLLMENT, AND PERSISTENCE.

Several different application assistance programs, including assistance from a tax professional on completing the US federal financial aid application (1), mentoring from current undergraduates (2) and (5), and school-based workshops on the application process (3), boosted college enrollment rates.

Students who received personalized assistance from a tax professional in completing the federal financial aid form (1) were more likely to file FAFSA applications, receive financial aid, and enroll and persist in college. Financially dependent high school students whose parents were offered application support were 8.1 percentage points more likely to enroll in college in the subsequent year, compared to a baseline of 34.2 percent in the comparison group (an increase of 23.7 percent), and 10.6 percentage points more likely to receive a Pell grant,² compared to a baseline rate of 29.6 percent (an increase of 35.8 percent). These effects lasted over time. Indeed, these students were 8.0 percentage points more likely to have completed two consecutive years of college in the next three years, compared to a baseline rate of 28.0 percent (an increase of 28.6 percent).

For financially independent students with no college experience who were offered application assistance themselves, the FAFSA assistance increased college enrollment by 1.5 percentage points, from a baseline of 9.5 percent (an increase of 15.8 percent), and increased Pell grant receipt by 3.0 percentage points, compared to a baseline rate of 11.1 percent (an increase of 27.0 percent). This suggests that for these financially independent students, the FAFSA assistance both encouraged students to enroll and helped students already planning to enroll to receive financial aid. The intervention did not lead financially independent students with previous college experience to enroll at higher rates, which the researchers expected since many were already enrolled. However, it did increase the rate at which these students received Pell grants, among those who did enroll. Conditional on going to college, Pell grant receipt rose by 4.6 percentage points for students offered FAFSA assistance, compared to a baseline of 59.4 percent.

Direct support from undergraduate mentors on college applications (2) and matriculation requirements (5) increased college enrollment. The offer of peer coaching raised college enrollment rates by 6.0 percentage points overall from a baseline of 43.8 percent (an increase of 13.7 percent) for high school seniors in New Hampshire who had expressed interest in attending college but had not made significant progress on applications by mid-year. This intervention appears to be particularly effective for female students. For female seniors, the



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offer of peer coaching in the college application process increased enrollment by 14.6 percentage points from a baseline of 44.6 (an increase of 32.7 percent). This intervention had no significant impact on males. Researchers note that men in the sample were more likely than women to say they preferred a current job to college, predict higher wages for jobs that did not require a college education, and receive higher wages for such jobs.

A multi-site randomized evaluation of the Bottom Line college-advising program in Massachusetts and New York documented a 6 percentage point increase in college enrollment from a baseline rate of 83 percent (an increase of 7 percent) and a shift in enrollment to four-year colleges and higher-quality colleges due to the program.³ Similar to the New Hampshire study, female students saw the largest benefits from the program. Studies of other college application mentoring programs in Minnesota⁴ and Los Angeles⁵ found evidence of shifting enrollment towards four-year schools and more selective schools, although these programs did not increase overall enrollment rates.

² The Federal Pell Grant Program provides need-based grants to low-income students at one of approximately 5,400 participating postsecondary institutions. The grants are awarded directly through participating institutions to students with financial need, as determined by the financial information reported on the FAFSA.

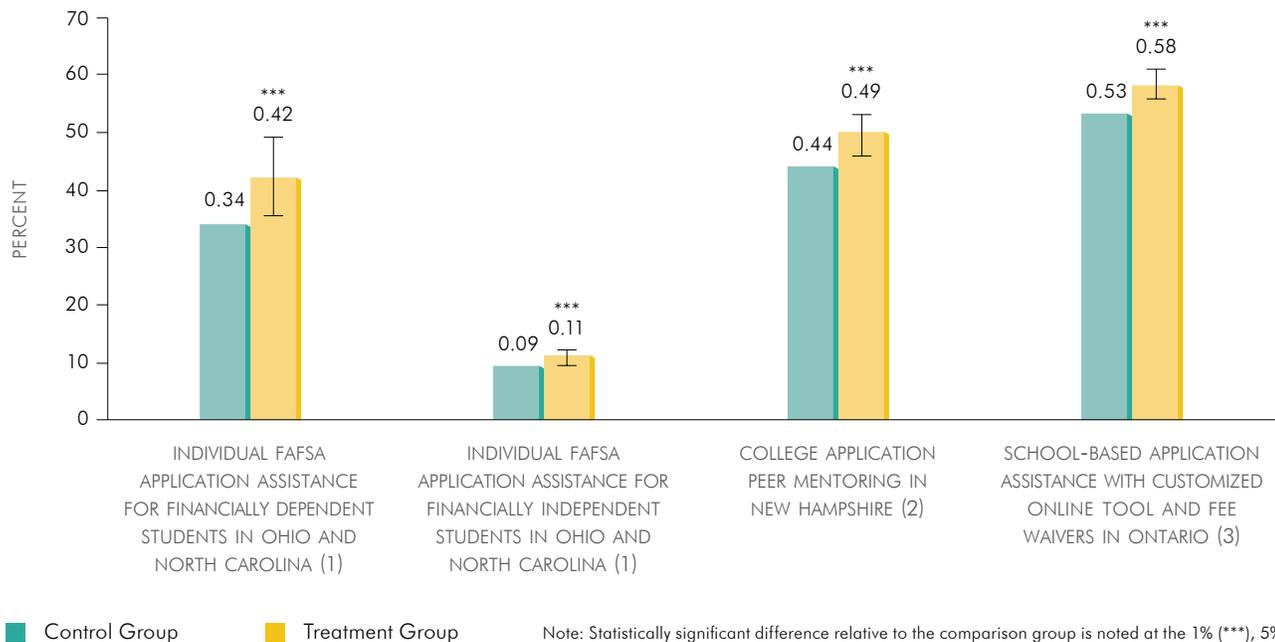
³ Barr, Andrew and Benjamin L. Castleman. 2016. *Advising Students to and Through College: Experimental Evidence from the Bottom Line Advising Program*. Boston, MA: Bottom Line.

⁴ Avery, Christopher. "Evaluation of The College Possible Program: Results from a Randomized Controlled Trial." NBER Working Paper No. 19562, October 2013.

⁵ Bos, Johannes, Jacqueline Berman, Thomas Kane, and Fannie Tseng. 2012. *The Impacts of SOURCE: A Program to Support College Enrollment through Near-Peer Low-Cost Student Advising*. Paper presented at the APPAM 2012 Fall Research Conference, Baltimore, MD, November 8 – 10.

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FIGURE 3. PERSONALIZED ASSISTANCE BOOSTS COLLEGE ENROLLMENT FOR 2- AND 4-YEAR COLLEGES



Outreach by peer counselors during the summer before college in Boston, Lawrence, and Springfield, Massachusetts, and Philadelphia, Pennsylvania (5) increased enrollment in four-year colleges by 4.5 percentage points from a baseline rate of 38.8 percent, but had no significant impact on two-year enrollment. Three other summer college counseling programs, in Rhode Island,⁶ Massachusetts,⁷ and Georgia,⁸ similarly increased enrollment in four-year colleges.

School-based application assistance workshops using an online tool that provided customized application information, in connection with fee waivers, boosted college application and enrollment rates (3). Personalized guidance in identifying appropriate colleges to apply to and application fee waivers both appear to be key components of this program’s effectiveness.

At schools with low college-going rates in Ontario, Canada, the initial version of this school-based program increased application rates for graduating seniors by 13.6 percentage points from a baseline application rate of 64.2 percent (an increase of 21.2 percent) and boosted college enrollment rates for graduating seniors by 5.2 percentage points from a baseline enrollment rate of 53.0 percent (an increase of 9.8 percent). A second version of the program, which provided less personalized information, had no detectable effects on enrollment. When fee waivers were included as part of the second version of the program, applications increased but enrollment did not. Researchers suggest this may be because students applied to programs that they were not qualified for or otherwise were not a good fit, perhaps due to the lack of personalized guidance in the college exploration phase.

2. FEE WAIVERS AND CUSTOMIZED INFORMATION ABOUT COLLEGE OPTIONS INFLUENCED STUDENTS’ DECISIONS ON WHERE TO APPLY TO AND ENROLL IN COLLEGE.

Customized mailings that shared selective college options, showed predicted college costs, and provided fee waivers (4) led high-achieving, low-income students in the United States to apply to and enroll in selective schools at higher rates. Students who received the mailing, regardless of whether they opened it, were 12.2 percentage points more likely to apply to the selective colleges that their high-achieving, wealthier counterparts apply to—compared to a baseline rate of 54.7 percent (an increase of 22.3 percent). They were also 5.3 percentage points more likely to enroll in these selective colleges, compared to a baseline rate of 28.6 percent (an increase of 18.5 percent). These students enrolled in colleges with higher average four-year graduation rates, levels of instructional spending, and levels of student-related spending. Because students are more likely to open letters if they recognize the sender name, researchers suggest that these impacts could be much larger if the intervention was implemented by a well-known organization like College Board, rather than by a research team. Follow-up surveys suggested that the intervention improved students’ knowledge of colleges’ net prices, instructional resources, student body composition, and graduation rates.

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Fee waivers played an important role in boosting college applications. According to pilot study results and phone interviews, fee waivers were a key part of this customized mailing intervention in the United States (4). Researchers found that fee waivers made families more likely to find the materials credible and increased the probability that a student would remember seeing the mailed materials. Likewise, when the school-based program in Ontario, Canada did not include fee waivers, the program had a negligible or even negative impact on the number of applications and enrollment rates (3).

3. PROVIDING GENERIC INFORMATION ABOUT COLLEGE IS TYPICALLY NOT ENOUGH TO INCREASE OVERALL COLLEGE-GOING. HOWEVER, TIMELY AND SPECIFIC REMINDERS CAN HELP STUDENTS ENROLL IN COLLEGE AT HIGHER RATES.

Providing generic college information without fee waivers or personalized assistance had no detectable impact on college enrollment. Information on financial aid without personalized assistance from a tax professional in Ohio and North Carolina did not successfully increase FAFSA application submissions, financial aid receipt, or college enrollment (1). Likewise, letters to New Hampshire high school seniors with college information (highlighting the benefits of a college education and providing a link to the online application), but without fee waivers and direct mentorship, also had no effect (2). Interventions in Chile,⁹ Colombia,¹⁰ and Finland¹¹ that provided students with information about the expected earnings associated with particular degree programs similarly did not increase overall enrollment rates (although in Chile and Colombia, these interventions did lead students to choose degree programs with higher average earnings).

⁶ Castleman, Benjamin L., Karen Arnold, and Katherine Lynk Wartman. 2012. "Stemming the Tide of Summer Melt: An Experimental Study of the Effects of Post-High School Summer Intervention on Low-Income Students' College Enrollment." *Journal of Research on Educational Effectiveness*, 5(1): 1-17.

⁷ Castleman, Benjamin L., Lindsay C. Page, and Korynn Schooley. 2014. "The Forgotten Summer: Does the Offer of College Counseling After High School Mitigate Summer Melt Among College-Intending, Low-Income High School Graduates?" *Journal of Policy Analysis and Management*, 33(2): 320-344.

⁸ Ibid.

⁹ Hastings, Justine, Christopher Neilson, and Seth Zimmerman. "The Effects of Earnings Disclosure on College Enrollment Decisions." NBER Working Paper No. 21300, June 2015.

¹⁰ Bonilla, Leonardo, Nicolas Bottan, and Andres Ham. "Information Policies and Higher Education Choices: Experimental Evidence from Colombia." SSRN, January 2016.

¹¹ Kerr, Sari Pekkala, Tuomas Pekkariinen, Matti Sarvimaki, and Roope Uusitalo. "Educational Choice and Information on Labor Market Prospects: A Randomized Field Experiment." Working Paper, February 2014.

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Timely and specific reminders, such as text messages about concrete tasks, boosted college enrollment. Text message campaigns had modest but positive impacts in several contexts—they also boosted financial aid applications and influenced college-related borrowing decisions. In Massachusetts and Texas, sending text messages to students, and when possible their parents, to remind them of pre-matriculation tasks increased enrollment in two-year colleges by 3.0 percentage points from a baseline rate of 20.2 percent. The intervention did not have a significant impact on enrollment in four-year colleges (5). An additional large, multi-site randomized evaluation conducted in Massachusetts and Florida documented a similar increase in college enrollment from sending text messages to students and/or parents about pre-matriculation tasks, with the increase evenly split between two- and four-year colleges.¹² In addition, personalized text-messages increased college matriculation among students who had been accepted to and planned to attend Georgia State University (GSU).¹³ This program sent personalized reminders based on specific incomplete transition tasks and leveraged artificial intelligence to automate responses to common student questions. The intervention improved student completion of several pre-enrollment requirements and boosted enrollment by 3.3 percentage points from a baseline rate of 84.6 percent.¹⁴ Similarly, sending students reminders with concrete planning prompts about when and how to complete the FAFSA modestly increased college enrollment.¹⁵ Text messages also successfully encouraged community college students to re-file their financial aid forms after their first year of college¹⁶ and helped students make more informed decisions about college-related borrowing.¹⁷

COMBATTING SUMMER MELT WITH ARTIFICIAL INTELLIGENCE (AI) — A CLOSER LOOK AT GEORGIA STATE UNIVERSITY'S AI INTERVENTION

At Georgia State University, artificial intelligence streamlined a labor-intensive component of text messaging programs: responding to student questions. The program was initially designed to respond automatically to over 250 frequently asked questions. When students asked new questions, university staff responded directly and the question-response pairs were saved for future use. By the end of the five-month implementation period, the system could respond automatically to over 1,000 questions.

¹² Castleman, Benjamin L., and Lindsay C. Page. "Parental Influences on Postsecondary Decision-Making: Evidence from a Text Messaging Experiment." *Educational Evaluation and Policy Analysis*. January 2017.

¹⁴ Page, Lindsay C., and Hunter Gehlbach. "How an Artificially Intelligent Virtual Assistant Helps Students Navigate the Road to College." SSRN, March 2017.

¹⁵ Bird, Kelli, Benjamin L. Castleman, Joshua Goodman, and Cait Lamberton. "Nudging at a National Scale: Experimental Evidence from a FAFSA Completion Campaign." EdPolicyWorks Working Paper No. 54, March 2017.

¹⁶ Castleman, Benjamin L., and Lindsay C. Page. 2016. "Freshman Year Financial Aid Nudges: An Experiment to Increase FAFSA Renewal and College Persistence." *Journal of Human Resources*, 51(2): 389-415.

¹⁷ Barr, Andrew, Kelli Bird, and Benjamin L. Castleman. "Prompting Active Choice Among High-Risk Borrowers: Evidence from a Student Loan Counseling Experiment." EdPolicyWorks Working Paper No. 41, January 2017.

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4. THESE INTERVENTIONS HAD THE LARGEST IMPACTS FOR STUDENTS WITH LIMITED ACCESS TO OTHER COLLEGE TRANSITION SUPPORTS.

Researchers suggest that the interventions that are effective are most beneficial for students with few or no other sources of college transition support. For example, the educators who implemented the school-based workshops in Ontario, Canada (3) reported that the program was particularly helpful for students who lacked confidence academically, did not have parents helping them to apply, or were otherwise disadvantaged. The impact of the United States mailed information and fee-waiver program (4) was also larger for low-income students from high schools where few students score in the top decile of college assessment exams than for students who attended high schools with high numbers of high-achievers or from slightly more affluent families. Similarly, peer mentoring by undergraduate mentors during the application process (2), peer counseling during the summer before matriculation (5), and sending text reminders about tasks required for matriculation (5) were most beneficial for students who did not receive college application assistance from teachers, parents, or other sources. In particular, the effects of the text message reminders were largest in Lawrence and Springfield, Massachusetts, two cities with few college access organizations, as compared to the effects in Boston, Massachusetts and Dallas, Texas, two cities with more college application support options.

5. MOST STUDENTS WHO ENROLLED UNDER THESE PROGRAMS STAYED IN COLLEGE AFTER MATRICULATING.

While some people express concerns that these types of programs may encourage unprepared students to enroll and worry they may drop out, this was not the case. The students that enrolled under these interventions persisted in college. Researchers present evidence that students who enrolled in more selective colleges as a result of the mailed information and fee waivers program (4) stayed in school at similar rates and received similar grades as they would if they had attended less selective colleges. Financially dependent students whose families received FAFSA assistance (1) were substantially more likely to remain in college for at least two years. Female students who worked with a college application mentor (2) and enrolled in college were no more likely to drop out before their second year than students who enrolled without being mentored.

6. SOCIAL NORMS SHAPED STUDENT DECISIONS ON COLLEGE PREPARATION.

When academic effort is visible to peers, a student's choices may depend in part on the student's expectations about how peers will react. In classrooms where students feel that it is not socially desirable to show academic effort, high-achieving students may hide academic effort in order to fit in. Conversely, in classrooms where it is socially desirable to be seen as smart, students who feel that they are low-achieving may not participate to reduce the chance of a public mistake. In either of these circumstances, students may decide not to raise their hand in class, stay after school for support or tutoring, or sign up for an SAT prep course because of social pressure.

In regular (non-honors) classes in low-income Los Angeles high schools, informing students that their decision to sign up for a free SAT prep course would be shared with their classmates (as opposed to kept private) decreased sign-up rates by 10.8 percentage points, compared to a baseline private sign-up rate of 71.7 percent (a decrease of 15.1 percent) (6). This impact was larger among students who reported that being popular was important to them. By contrast, in honors classes, informing students that their decision to sign up would be public did not decrease sign-up rates. For students taking a combination of honors and non-honors classes, public sign-ups reduced sign-up rates during non-honors classes and increased sign-up rates during honors classes.

In a follow-up study,¹⁸ researchers examined peer influence in three Los Angeles schools, one lower-income high school and two higher-income high schools. In all three schools, students were less likely to sign up for a chance to win an SAT prep package if their decision to sign up and their diagnostic test scores would be shared with their classmates, consistent with student decisions in non-honors classes in the initial study. Sign-up rates dropped 27 percentage points (from a baseline of 80 percent) when students were told that their decision to sign up and subsequent diagnostic scores would be made public.

LEVERAGING ADMINISTRATIVE DATA

Most of these studies relied on administrative data – data collected for purposes other than research – for measuring outcomes. Compared to new data collected through surveys, administrative data can cost much less, enable long-term follow-up, and improve the accuracy of study findings. For example, the National Student Clearinghouse, which covers approximately 97 percent of all students in public and private US postsecondary institutions, provides data on college enrollment, persistence, and completion for most of these (and many other) evaluations.

¹⁸ Bursztyn, Leonardo, Georgy Egorov, and Robert Jensen. "Cool to be Smart or Smart to be Cool? Understanding Peer Pressure in Education." NBER Working Paper No. 23020, January 2017.

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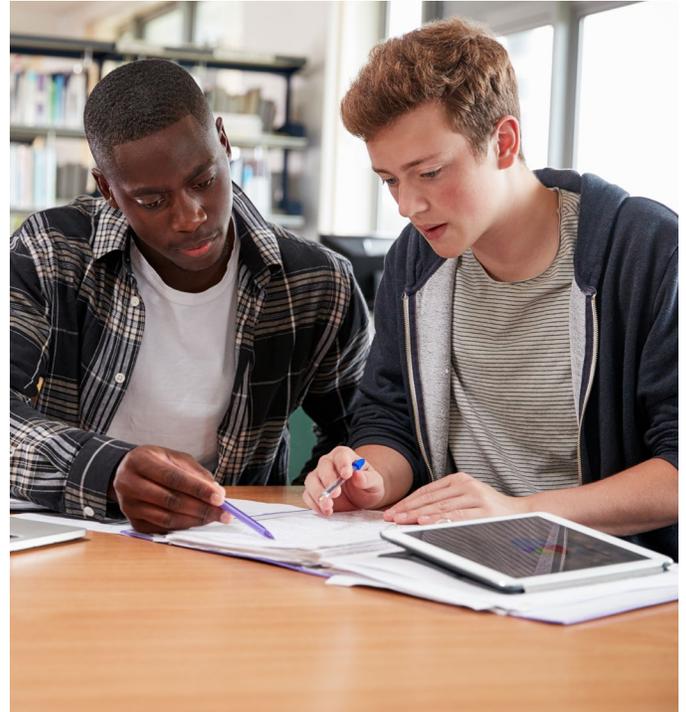


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The studies featured in this Bulletin were made possible by a number of partners and funders. For specific information on each study, please refer to the papers listed above.

APPENDIX: DETAILS OF THE INTERVENTIONS



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This section includes information on the motivation for and details of each intervention.

(1) FINANCIAL AID APPLICATION ASSISTANCE AND INFORMATION

Completing the US federal financial aid application for college, the Free Application for Federal Student Aid (FAFSA), requires answering more than ninety detailed questions on topics including earnings, savings, government benefits, parental educational attainment, and parents' finances (if financially dependent). The application can appear complex and overwhelming.

In collaboration with H&R Block, a tax-preparation company, researchers studied the impact of financial aid application assistance and information on college outcomes for low-income individuals. Low-income, college-eligible clients in Ohio and North Carolina were eligible to participate in the study as an add-on to the typical tax preparation process.

Participants were randomly assigned to a control group or one of two treatment groups:

- **FAFSA assistance and information group:** Tax professionals used customized software to transfer information from participants' tax returns into the FAFSA form and then helped participants complete the remaining questions. This process typically took less than ten minutes. Participants could choose to have H&R Block file the FAFSA electronically with the Department of Education or mail the completed form (and a prepaid envelope) home for them to submit themselves. If the application was incomplete, an external call center followed up to collect answers to the remaining questions. Participants also received printed customized information on federal and state financial aid eligibility, along with the tuition prices of four nearby public four- and two-year colleges.
- **Information only group:** Participants received a printout with a personalized financial aid amount based on information in their tax returns and the tuition prices of nearby colleges. Participants were encouraged to complete the FAFSA on their own but were not offered any application assistance.

(2) COLLEGE APPLICATION COACHING AND MENTORSHIP

Many low-income students who intend to go to college, even as late as the beginning of their senior year in high school, do not successfully complete the process. For example, although two-thirds of a sample of high school seniors in urban Boston public schools surveyed in the fall of their senior year in 2001–2002 expressed that they intended to enroll in college the next year, less than a quarter of students actually did so. Of the students who originally intended to go to a four-year college the following year, only 35.5 percent did so.¹⁹

Researchers partnered with twenty of the larger high schools in New Hampshire from 2009 to 2014 to examine whether in-person mentoring or mailings could help students enroll in college. Guidance counselors at these schools identified over 2,600 high school seniors who had expressed an interest in attending college but had made little to no progress on applying. These students were randomly assigned to a control group or one of two primary treatment programs:

- **Mentoring program:** Dartmouth College undergraduates met weekly with groups of high school seniors to provide advice and assistance in applying to college. The program paid application and test fees upfront and, for some cohorts, offered a \$100 cash bonus for completing the application process.
- **Mailing program:** Students received a letter from the New Hampshire Community College System highlighting the benefits of college and providing a link to the online application. Students could also opt to have their transcripts sent to colleges in New Hampshire. Roughly 25 percent of these students (based on the quality of their transcript) received a letter from one of four selective four-year colleges in the state encouraging them to apply.

¹⁹ Avery, Christopher and Thomas J. Kane. 2004. "Student Perceptions of College Opportunities: The Boston COACH Program" in *College Choices: The Economics of Where to Go, When to Go, and How to Pay For It*, edited by Caroline M. Hoxby. Chicago: University of Chicago Press, 355-394.

(3) SCHOOL-BASED APPLICATION ASSISTANCE AND FEE WAIVERS

Exploring a more scalable version of personalized assistance, researchers partnered with high schools in Ontario, Canada, to evaluate whether school-based application assistance paired with fee waivers could boost application rates and college enrollment. The program, LifeAfterHighSchool, provided instruction and a ‘one-stop’ online platform to help students select schools they would likely be eligible for, direct students to application websites, calculate predicted financial aid, and complete financial aid applications. Students also received paperwork-free application fee waivers.

In Phase I (2011–12), researchers partnered with 86 high schools with low college-going rates, half of which were randomly assigned to receive the LifeAfterHighSchool program. Students in schools receiving the program attended three application assistance workshops in computer labs during normal class times. In each workshop, instructors and the online platform helped students walk through steps of the application process. Students received fee waivers.

In Phase II (2013–14), researchers worked with 66 of these schools, half of which were randomized to receive a version of the LifeAfterHighSchool program, which differed from the Phase I version in a few respects. Application assistance workshops used laptops in normal classrooms and occurred two rather than three times during the school year. In this case, the online program that provided guidance on college exploration and application steps offered less personalization than in Phase I. Researchers also varied whether students received fee waivers, whether the schools received external instructional support and laptops, and whether facilitators returned after the workshops for additional small group help.

(4) IMPROVING COLLEGE MATCH

Most high-achieving, low-income students do not apply to or enroll at the same schools as their higher-income peers, despite having similar qualifications. Many of these students do not apply to any selective colleges. Researchers developed and tested a program designed to encourage high-achieving, low-income students to apply to and enroll in more selective colleges. Researchers identified nearly 40,000 high-achieving, low-income students and randomly selected a subset of them to receive some or all of the following materials in semi-customized mailings:

- **Application guidance:** Information on average college graduation rates for nearby colleges, the state’s flagship public university, and in- and out-of-state selective colleges; timely and customized reminders about deadlines and application requirements; and explanations of how to use online research tools related to the college search.
- **Net cost guidance:** Information about the net costs, accounting for expected financial aid, for nearby colleges, the state’s flagship public university, and in- and out-of-state selective colleges, as well as information about the financial aid application timeline.
- **Fee waiver:** Paperwork-free application fee waivers to more than 150 selective colleges.

(5) TEXT MESSAGES TO COMBAT “SUMMER MELT”

Even after being accepted to college, students face multiple barriers to matriculation, including delays in financial aid due to income verification requirements, the cost of travelling to campus, and unanticipated fees on the tuition bill. Up to twenty percent of recent high school graduates that are accepted to college fail to matriculate, a phenomenon commonly known as “summer melt.”

Researchers collaborated with the Dallas Independent School District in Dallas, Texas; uAspire, a Boston-based non-profit organization; and Mastery Charter Schools in Philadelphia, Pennsylvania to test the impact of text messaging and peer mentoring on reducing summer melt. College-intending high school graduates were randomly assigned into a control group or one of two treatment groups:

- **Text message outreach:** Students and (where possible) parents received ten automated text messages during the summer to remind them of tasks their intended college required for matriculation and to invite them to request help if needed. When students responded to a text message, they were connected with a professional financial advisor or school counselor who would provide individualized assistance.
- **Peer mentor outreach:** Peer mentors currently enrolled in college reached out during the summer to offer support with the college transition. In an initial conversation, peer mentors assessed whether students were still planning to enroll in college and whether they had completed necessary enrollment steps. They scheduled in-person meetings or follow-up calls to support students struggling with certain steps.

(6) PEER PRESSURE AND EDUCATIONAL CHOICES

When academic effort is visible to peers, a student’s choices may depend in part on the student’s expectations about how peers will react. To test the impact of peer pressure on students’ educational choices, researchers visited 26 classrooms in four low-income Los Angeles high schools and offered students the opportunity to sign up for free access to an online preparatory course for the SAT, a standardized test required for many college applications.

Within each classroom, students were randomly assigned to receive a sign-up sheet that stated their decision to sign up for the online course would be shared with other students in the classroom or to receive a sign-up sheet that stated that decisions would be kept private. Researchers visited each school for two periods during the school day and visited a mix of honors classes and regular (non-honors) classes. As some students were enrolled in both honors and non-honors classes, students were sitting in either one or the other during the researchers’ visit. This allowed researchers to compare whether students responded differently depending on whether they happened to be sitting with honors or non-honors peers when the SAT prep course was offered.

POLICY LESSONS

The college transition process plays an important role in shaping student decisions about college. In the past, policymakers and administrators typically have not paid attention to the transition process, believing it to be too insignificant to matter for such an important decision. Recent research from behavioral psychology, sociology, and neuroscience, however, suggests that the complexity of applying for college, obtaining financial aid, and completing matriculation requirements can impede students from pursuing higher education. Many students intend to go to college and are academically qualified to do so but do not successfully matriculate.

The complexities of the transition process disproportionately prevent lower-income students from going to college. The complicated financial aid process particularly impacts students with lower family incomes. Lower-income students receive less support during the application process, as high schools serving predominantly low-income and minority students typically have less support from counselors.

College-going decisions are the type of inherently difficult choices for which providing additional structure and support can be particularly helpful. These decisions are complicated, impose immediate costs, offer diffuse benefits, provide limited opportunities for feedback, and require students to look beyond current preferences. Social norms about college-going and college preparation may also be a challenge. Providing additional structure and support in the decision-making process can help students make thoughtful choices about their plans for the future.

Providing generic information about the college transition process is usually not enough to increase enrollment rates. Providing information may shape the selection of colleges of students who would otherwise attend college, but making the jump from high school to college involves logistical and behavioral challenges that information alone usually does not adequately address.

Providing personalized support and simplifying the complexities of the transition process can make the difference between whether students go to college or end their formal education. To encourage college-going, policymakers and educators can:

- Make the application easier and more convenient to complete
- Provide guidance on putting together a plan for applying, including what types of schools to apply to, perhaps with a list of examples, and ideally with personal assistance
- Remind students of remaining steps to complete through text messages
- Waive application fees without requiring the completion of additional paperwork by the applicant

These interventions are inexpensive relative to the large benefits of a college education.

Convenience and structure seem to be key elements of effective programs to smooth the college transition. Effective programs provide personalized assistance to simplify the process of applying for financial aid, applying for college, and fulfilling matriculation requirements. This support may be particularly helpful for students with limited access to existing support for the college transition process. Policies that simplify these underlying processes may have similar impacts on a larger scale.

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