

SUMMARIES OF COLLEGE ACCESS AND COMPLETION INTERVENTIONS

APPENDIX TO "SUPPORTING STUDENTS
TO AND THROUGH COLLEGE: WHAT
DOES THE EVIDENCE SAY?"

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As discussed in the main report, we categorized interventions into three categories: comprehensive, advisors and navigators, and “low-touch.” Notably, in the literature the term “comprehensive” is used to mean different things, including for programs that comprehensively cover one aspect of enrollment or completion, rather than addressing multiple barriers. Because of the large number of interventions we reviewed, grouping them proved useful, even though the definitions in the literature are not consistent and the boundaries are often not clear. We made our best effort. Likewise, while we attempted to be as inclusive of access and completion interventions that have been evaluated with a strong causal design, we almost certainly missed some; we apologize for any errors or omissions.

In this appendix, we provide a brief summary of the intervention itself, information about the cost and timing of the program, and the impacts. To facilitate comparisons, we adjusted the program costs to 2023 using the CPI-U, which we report in parentheses. (We do not include inflation-adjusted cost estimates for some of the low-touch interventions, since they are generally inexpensive at scale.) Studies often do not specifically report whether cost estimates have been adjusted for inflation to the time of the study and many interventions happen over more than one year. In general, we applied a CPI adjustment based on the first year that the intervention was in the field; many of the cost estimates are approximate.

This appendix is divided into the three categories mentioned and then according to whether the intervention addresses access, completion, or both. We arrange the interventions roughly in order of when the programs were fielded.

1 COMPREHENSIVE PROGRAMS

We classify interventions as “Comprehensive” if they include several components, addressing multiple potential barriers that students might face. Comprehensive interventions typically include several of the following: counseling/coaching/advising, navigators, case management, help with transportation, financial aid, academic support, special sections of classes, learning communities, tutoring and more. Some programs have multiple components, but some of the components are not that intensive, in which case we do not classify those programs as comprehensive.

1.1 COMPLETION PROGRAMS

1.1.1 Project QUEST

Program: Project Quest is a comprehensive program for individuals to complete occupational training programs at community college or other training providers. Participants receive financial assistance to cover a broad set of educational expenses, including books and supplies, and tutoring; remedial instruction in math; counseling to address personal and academic problems and provide support; referrals to other services as needed; weekly meetings focused on academics, time management, life skills, conflict resolution, etc.; and job placement assistance.

This evaluation focused on individuals pursuing training for healthcare jobs. Participants were enrolled in the program for an average of 22 months.

Cost and timing: The study was fielded between 2006 and 2008. The average cost was about \$10,500 per participant (\$15,500 in 2023 dollars).

Impact: Nine years after random assignment, program participants experienced a **\$5,239 average increase in income (18%)**, compared to the control group which had an average income of about \$28,400. Participants were about **26 percentage points more likely to earn any health care certification within six years** (control mean was 42%). Nine years after random assignment, program participants were **16 percentage points more likely** to have earned at least one NSC-covered credential (control mean was 24%); the effect was primarily on certificates and diplomas rather than associate or bachelor's degrees.

Sources: Elliott and Roder (2017); Roder and Elliott (2020)

1.1.2 Accelerated Study in Associate Programs (ASAP)

Program: Accelerated Study in Associate Programs (ASAP) was developed and first implemented at three CUNY community colleges. The CUNY program targeted low-income students who needed one or two developmental courses and were willing to enroll full time. Participants had access to last dollar financial aid (though most had other financial aid to cover tuition and fees), specially trained academic advisors/coaches, tutoring, career and employment services, a special college success course plus block scheduling and early registration access, and a MetroCard. Students were required to attend advising and use other services to receive the MetroCard. Participants could stay in the program for up to three years.

The program was later replicated at three community colleges in Ohio using a similar model, with a few changes: eligibility criteria were relaxed to allow low-income students without developmental education needs to participate, participants enrolled in an existing college success course rather than one specific to the program, they did not have special registration or scheduling considerations, and the MetroCard was replaced with a \$50 food/gas card. Finally, the advising used a "triage" model, requiring students identified as high-need to meet with advisors twice per month as in the CUNY program, while lower-need students were only required to meet once per month.

The study included survey data to assess the treatment contrast, and treated students in both the CUNY and Ohio studies received significantly more advising, career services, and tutoring, though the Ohio program was somewhat less intensive across the different service categories and significantly less expensive.

Timing and cost: The CUNY program was implemented in 2010 and cost about \$16,284 (\$23,400 in 2023 dollars) per participant over three years; the Ohio program was implemented in 2015 through 2018 and cost around \$8,030 (\$10,600 in 2023 dollars) per participant over three years.

Impact: CUNY ASAP **increased three-year graduation rates by about 18 percentage points**, to almost double the control mean of 22%; ASAP Ohio increased three-year graduation by **16 percentage points**, compared to a control mean of 19%. A long-term follow-up of the Ohio study showed the program increased bachelor's degree completion by 5 percentage points and earnings by almost \$2,000 annually after 6 years (compared to \$17,600 in the control group).

Sources: Miller et al. (2020); Scrivener et al. (2015); Weiss et al. (2019); Hill, Somo, and Warner (2023); Miller and Weiss (2022)

1.1.3 Valley Initiative for Development and Advancement (VIDA)

Program: VIDA supports full-time enrollment of adults in occupational training programs at local community colleges in the Rio Grande area of Texas. The occupational programs target certificates and degrees that are expected to lead to jobs that pay well and have strong local employer demand for workers. VIDA provides substantial financial assistance for tuition and other direct costs of attending school—the goal is to cover the full cost of attendance, taking account of Pell grants and other available aid. Participants are required to be enrolled full-time in certificate programs, associate degree programs, or the final two years of bachelor's degree programs; attendance at weekly group and individual counseling/support sessions (a combination of workshops, academic support, counseling, community building, and problem identification) is required. These sessions are designed to help students navigate and succeed in college. The program also includes a 16-week “College Prep Academy” for students who have 10th grade level skills but are not college ready; the Academy focuses on basic skills and takes place in the summer before enrollment.

Timing and cost: The program cost around \$11,000 per participant (\$15,300 in 2023 dollars). The program was implemented between 2011 and 2014.

Findings: The authors estimate a marginally significant **treatment effect of 7.3 percentage points on degree completion** (associates or higher), compared to a control mean of 34%. The treatment effect for any college credential (including those below associates) was **13 percentage points**, compared to a control mean of 54%. The program had no significant effect on earnings 16 quarters out (can rule out moderate effects), but that could be too soon to see increased earnings.

Sources: Rolston et al. (2021)

1.1.4 Accelerate, Complete, Engage (ACE)

Program: The ACE Program is modelled on ASAP CUNY and was implemented at John Jay College of Criminal Justice, part of the CUNY system. The program provides services for up to four years. Participants had access to an advisor with a reduced caseload to address academic, financial, career development, and other topics; participants are required to meet with their advisor regularly and are expected to enroll full-time in the summer or winter session if needed to complete 30 credits during the year. Participants were referred to existing academic supports and encouraged to use them; this is in contrast to ASAP, which had dedicated tutors. Take-up of

academic help in math and writing was high (though the study did not track participation by the control group). ACE included last dollar financial aid, support to purchase textbooks and course materials, and a MetroCard. ACE participants also had access to community building/information/career service activities starting in the summer before the first semester and through their time in the program. The cohorts studied were affected by the transition to online learning during the COVID-19 pandemic; as a result, advisors met with their students virtually, and the full-time enrollment requirement was relaxed.

Timing and cost: Students in the study started college in the fall of 2018 and were followed for five years. The study does not report on the costs of the program.

Findings: Participants in the program were **12 percentage points more likely to complete a bachelor's degree**, compared to control (control mean of 57%), within five years. Effects on four-year completion were similar. The authors report exploratory sub-group analysis, but the sample is quite small (only 570 in the whole study).

Sources: Scuello and Strumbos (2024); Zhu, Scuello, and Strumbos (2023)

1.1.5 SUCCESS

Program: The SUCCESS program, launched in 2019 across 13 campuses (a mix of two- and four-year campuses) in five states, aims to support first-year college students seeking degrees or certificates. The program is part of an effort to draw on the lessons of earlier programs (especially ASAP) to develop a lower-cost intervention that could be more easily implemented at scale. Participants received monthly personal and academic coaching, with a financial incentive of \$50 contingent on meeting with their advisor and enrolling full time. Program staff had access to a data system to track student progress. Because the study was conducted on students attending college in 2020, during the COVID pandemic, some adjustments were made: the full-time enrollment and advisor meeting requirements were relaxed, and the coaching and advising took place virtually. While this is considered a “comprehensive” program because it has many components, it is much less expensive even than some advising programs. The program targeted first-time students pursuing a certificate or degree. Each site had different emphases in recruitment; but overall the program enrolled students from disadvantaged backgrounds.

Cost and Timing: The pilot was implemented in 2019, but the RCT took place starting in 2020, during the COVID pandemic. This evaluation includes seven institutions that began implementing SUCCESS in 2020. The average cost was about \$1,150 per participant (\$1,400 in 2023 dollars).

Impact: The study found **no effects of the intervention on earned credits and enrollment in the first 3 semesters** compared to control groups (they can reject persistence effects of around 4-5 percentage points). There is a positive relationship between estimated treatment effects and measures of fidelity of implementation, suggesting the program may have had larger effects when implemented more fully.

Sources: Sommo et al. (2023)

1.2 ACCESS AND COMPLETION PROGRAMS

1.2.1 Upward Bound

Program: Upward Bound is a federally funded college access and success program targeting low-income students who would be the first in their family to attend college. The program is one of the federal TRIO programs first funded in the 1960s as part of the War on Poverty. The program operates at hundreds of sites, mostly four-year colleges, and details of design and implementation vary. Program services typically include instruction, tutoring, and counseling; most sites operate six-week intensive instructional programs in the summer.

Cost and timing: Participants typically begin in 9th or 10th grade and stay in the program about 20 months, costing around \$8,000 (\$14,000 in 2023 dollars) per participant. (Mathematica reported the average cost in 2001 as \$4,800 per year, so about \$8,000 per participant.) The Department of Education commissioned a random-assignment evaluation of the “regular” Upward Bound program in the 1990s (Upward Bound Veterans and Upward Bound Math-Science have not been rigorously evaluated).

Impact: The random-assignment evaluation found that the offer of Upward bound **did not have detectible effects on high school graduation, financial aid application or receipt, college enrollment or completion**; there were small effects, significant at the 10% level, on license or certificate completion. (The main study does not report standard errors or confidence intervals.) Later studies questioned these results, noting that some of the findings are sensitive to the weights used and the construction of the outcome measure. In addition, there were crossovers in both directions (students assigned to treatment who did not participate, and students assigned to control who did), so TOT estimates are larger (and in some cases imprecise). Replication studies estimate that UB participation increases post-secondary enrollment by up to 14 percentage points, though the original authors raise several questions about that approach. In any case, the estimates are not robust.

Sources: Sefor, Mamun, and Schirm (2009); Cahalan (2009); Nathan (2013)

1.2.2 One Million Degrees (OMD)

Program: One Million Degrees (OMD) is a comprehensive support program designed to help students complete community college by addressing a range of barriers to community college completion. The program is operated as a non-profit and serves students in several Chicago-area community colleges. OMD supports students financially, academically, personally, and professionally with last-dollar scholarships, financial incentives for participation, skill building workshops, advising, and coaching. Students meet at least monthly with program coordinators to work on academic and professional goals and attend monthly workshops that include meeting with a volunteer coach and participating in activities designed to build professional skills.

Students can apply for the program out of high school or after enrolling in a community college; they must be eligible for the Pell Grant or the Chicago STAR scholarship (which targets high-

performing graduates of Chicago public high schools), have a GPA of at least 2.0, be pursuing their first college degree, and have at least a year left to finish their degree. This may include graduating seniors or returning adults.

Cost and timing: The initial study evaluating OMD does not provide a cost estimate. The study took place between 2016 and 2018.

Impact: Participation in OMD increased community college completion by **8 percentage points** for the full sample, compared to a control complier mean of **39 percent**. The effects were concentrated among those who enrolled from high school and materialized before the main “completion” components of the intervention even started: for the high school students, OMD increased enrollment in postsecondary education by **37 percentage points** and three-year degree attainment by **11 percentage points**. This suggests that, although it was designed as a college success program, OMD has important access/initial enrollment effects (which may well drive the completion effects).

Sources: Hallberg et al. (2023)

2 ADVISORS AND NAVIGATORS: COUNSELING, MENTORING, AND COACHING

This category of intervention includes classic mentoring, advising, counseling, and coaching interventions, where the participant gets information about and help—either individually or in a group or class—with various tasks related to college access or success. “Navigators” help connect participants to other services, either on campus or more broadly, instead of or in addition to counseling the student themselves. The line between this category and the comprehensive category is not always clear. An advisor or mentor is a core component of all the comprehensive interventions described above, and some interventions included here have at least one other component besides an advisor (such as emergency financial assistance or another form of financial assistance). To be included in the comprehensive category, an intervention generally had to have 3 or more components, but there is a wide range of intensity, both on paper and in practice, across interventions both in the “Advisor and Navigator” and “Comprehensive” categories.

Interventions that are mostly automated or involve little personalized assistance from a person, are not included here and instead are classified as “Low-Touch” below.

2.1 COMPLETION PROGRAMS

2.1.1 InsideTrack Coaching

Program: InsideTrack is a for-profit provider offering coaching interventions; they use predictive algorithms to reach out to students on the right issues at the right times at relatively low cost.

The algorithms incorporate some institution-specific information, and institutions contract with InsideTrack to provide the coaches. Coaches sometimes had access to course syllabi, transcripts, and data on student performance in specific courses. Coaches are assigned to students and contact them using phone, email, texts etc. Once contact has been established, coaches help students navigate college decisions by providing information on overcoming both academic and personal barriers. The coaches were supposed to “identify strategies for success by helping students use resources and advocate for themselves,” but the study does not include more specific information on the content of the coaching or how often students were directed to other services on campus. Students in this study were primarily nontraditional college students attending a technical community college.

Cost and timing: The cost was \$500 (\$830 in 2023 dollars) per student, per semester with an average of two semesters of participation; so about \$1,000 (\$1660 in 2023 dollars) per participant. Students were randomly assigned during the 2003-2004 and 2007-2008 school years (cohorts were chosen to balance concerns about representativeness and to have enough follow-up data).

Impact: Treated students were about **5 percentage points more likely to persist** during the treatment period, compared to a control mean of 58.0%. The effect on 24-month retention was a little more than **3 percentage points** (significant at 5 percent), compared to a control mean of 24.2%; and the **4 percentage point effect on degree completion** was marginally significant (control mean of 31.2%). The authors estimate TOT effects using several different definitions of “treatment” (e.g., less than 5 contacts, 5-10, and 10+ contacts), and find that the TOT estimates are larger when the “treatment” is defined as having earlier and/or more interaction with the coach. This suggests it could be important to understand why some students take up the services more than others (though the cost of the program might also increase if more students used the services more intensively).

Sources: Bettinger and Baker (2014)

2.1.2 Student Achievement and Retention Project (STAR)

Program: The Student Achievement and Retention Project (STAR) was designed to help college freshmen improve their study skills by offering academic support services, financial incentives for good grades, or both. This study was conducted at a satellite campus of a large Canadian university. Academic support services include mentoring from more senior students, facilitated study groups for many of the largest first-year courses, and workshops on study skills. The financial incentive was equivalent to up to a full year’s tuition for maintaining a certain GPA. The target depended on high school grades and was set so that roughly 5-10% would receive the full award without the intervention based on historical data; a smaller award was set so that 20-25% would be expected to qualify without the intervention. The incentive payment was only provided in a participant’s first year. Students eligible for this study were incoming freshmen with high school GPAs that were below the top quartile.

Cost and timing: The cost for participants who just received the academic support services was \$302 (\$480 in 2023 dollars) per student. Students who only received the financial incentive resulted in an average of \$366 (\$590 in 2023 dollars) per student. Those who received both support services and the incentive had an average cost per student of \$739 (\$1,190 in 2023 dollars). The cost would be higher if the award threshold were set lower. This study was conducted on students entering the fall semester of 2005.

Impact: Women were far more likely to take up services compared to men, and the **positive treatment effects are driven by women**. Women in the combined intervention group were also more likely to use the additional academic support services than those assigned to the academic support services only treatment. Participation in the **combined financial incentive and support program had substantial effects on academic performance for women** that persisted to the second year when the program no longer operated. The authors do not look at longer-term outcomes. The combined treatment reduced the likelihood that women withdrew by 9.7 percentage points, compared to the control mean for women of 24.3%. Students who were offered services, but no incentives saw little improvement in outcomes compared to the control.

For women, the combined treatment influenced grades towards the bottom of the distribution, where students had little chance of actually getting the financial reward. This raises questions of why the financial incentive increased the take-up of the support services. Did students think they were closer to the threshold to receive the payments than they were? Or maybe the incentive payments made the service availability more salient?

Sources: Angrist, Lang, and Oreopoulos (2009)

2.1.3 Opening Doors College Success Course (Chaffey)

Program: MDRC's Opening Doors program implemented two programs to improve student performance at Chaffey College, a community college system in Southern California. Their programs enrolled students on academic probation with fewer than 35 credits earned and no previously earned post-secondary degree or certificate. These students were mainly traditional undergraduates. The first treatment was a college success course taught by a college counselor; its purpose was to help students get out of academic probation through skill development. Each student was supposed to meet with their counselor at least twice outside of class to work on their academic plan and goals. The second version of the program ("Enhanced Opening Doors") made this course required instead of voluntary, lasted two semesters instead of one, and additionally required students to engage with Chaffey's new 'Success Centers' that offered tutoring and remedial support.

The Enhanced program differed in several ways from the original program: "The College Success course was taught by staff with experience in Opening Doors who had been selected by the Project Coordinator (the same Project Coordinator served for both versions of the program), and the course requirements were made more manageable for students. The Success Center expectation was reduced to five visits from nine, and the assignments were integrated with

themes from the College Success course. In addition, during the spring semester, Enhanced Opening Doors offered a second College Success course to build upon what students had learned in the first-semester course” (Scrivener et al. 2009, p. 32).

Cost and timing: Cost analysis showed that for the two semesters of the program, for the Enhanced Opening Doors program, the cost per student was \$1,300 (\$2,020 in 2023 dollars) more than control costs. The intervention took place during Fall 2006 and Spring 2007.

Impact: Chaffey’s voluntary Opening Doors program did not produce significant improvements in academic outcomes. The Enhanced Opening Doors program did improve some academic outcomes; these larger effects are likely due to higher participation rates (75% enrolled in the course vs. 50% in the voluntary program), though there were other differences between the two programs. The enhanced program resulted in an average **2.7 credit increase for the semesters students participated in the program** (control mean 5.6 credits), but the increase was concentrated in developmental credits (0.5) and other non-degree credits, including the success course itself. The Enhanced treatment also reduced the share of students with low GPAs and increased by **14.5 percentage points the likelihood of exiting academic probation** (control mean of 15.9 percent).

Despite the promising short-term effects, there are **no meaningful impacts of the Opening Doors treatments on long-term academic outcomes or degree completion**. (There was an increase in bachelor's completion from 0 to 1.8 percentage points, offset by a reduction in associate's degrees; but this represents just 4 students, so the authors urge caution.)

Sources: Scrivener, Sommo, and Collado (2009); Weiss et al. (2011); Scrivener and Coghlan (2012)

2.1.4 Carolina Covenant

Program: The Carolina Covenant provides guarantees financial aid to “meet full need” according to the financial aid formula for low-income students attending UNC Chapel Hill starting in fall of 2004. Students who applied for financial aid by filling out the FAFSA and College Board CSS forms were automatically considered and typically learned about the scholarship after they were accepted and before enrolling. Starting in 2007, the program included considerable nonfinancial support as well, including peer mentoring of new participants from older participants, help navigating campus mental health and tutoring resources, summer support programs, faculty and administrator interactions, and low- or no-cost cultural and performing arts opportunities. Use of these supports was not tracked in the study.

Cost and timing: The study covers the freshmen classes of 2003 to 2010 and follows participants for four years after initial enrollment. The average cost per student for providing non-financial components of the treatment is \$580 (\$830 in 2023 dollars).

Impact: This is a quasi-experimental study using regression discontinuity and difference-in-differences methods. The authors find evidence that the program improved academic progress

and increased completion in later cohorts, when it was combined with enhanced advising, but not in the earlier cohorts when it was only a scholarship. However, many of the estimates are imprecise and the magnitude of the estimates depends on the specification; the estimated **6.8 percentage point effect on completion is significant only at the 10% level.**

Sources: Clotfelter, Hemelt, and Ladd (2018)

2.1.5 Achieving the Dream (AtD)

Program: Achieving the Dream (AtD) is a student success course offered to community college students with developmental education (remedial) needs. The curriculum focused on changing students' psychosocial awareness, including improving awareness of one's own emotions and those of others, understanding one's learning style, improving time management skills, and taking responsibility for one's learning. This course is a two-credit, semester-long class. Participants were adults (18 or older) who needed at least one developmental course, had fewer than 20 earned credit hours and no history of being in a student success course.

Cost and timing: No cost assessment provided in the initial study. The program was evaluated in three semesters, starting in spring 2008 and ending in spring 2009.

Impact: The program had positive effects on students' psychosocial awareness skills, such as self-management, interest in lifelong learning, and emotional intelligence. However, there were **no significant effects on student academic performance, enrollment, or earned credits.** Many of the point estimates are negative. The sample size was moderate, however. For example, the authors can rule out effects on cumulative credits bigger than 2.3 (control mean of 18.4) after 3 semesters.

Sources: Rutschow, Cullinan, and Welbeck (2012)

2.1.6 Beacon Mentoring

Program: The Beacon Mentoring program targeted students enrolled in a remedial math course or college-level algebra course—two classes with high failure rates—at South Texas College, a community college that enrolls many academically unprepared students. College employees that volunteered to serve as “mentors” were each assigned to one class of students. Mentors visited their class, provided information about academic support resources, acted as a “go to” person on campus for students to reach out to with questions, and proactively offered support to struggling students. About half of students in mentored classes reported communicating with their mentor outside of class.

Cost and timing: The program was implemented during spring 2008. The authors do not provide a cost estimate.

Impact: The program had **no effect on passing the math classes or on persistence.** Estimates rule out math course pass rate increases larger than about 5 percentage points and increases in persistence to the next semester of about 3.3 percentage points at the 95% confidence level. However, the program did significantly increase the number of students who used campus

tutoring and other support resources and decreased the likelihood of students withdrawing from the math classes prior to the end of the semester. The program seemed to be most helpful for part-time students—a subgroup at a particularly high risk of failing. Part-time students were 6.6 percentage points more likely to pass their math course, compared to a control group mean of 51.1%.

Sources: Visher, Butcher, and Cerna (2010)

2.1.7 Opportunity Knocks (Performance-Based Scholarships + Peer Advisors)

Program: Opportunity Knocks (OK) offered peer advising and performance-based scholarships to students attending a Canadian commuter college. Students earned \$100 for each class they finished with a grade of 70% or higher with an additional \$20 for each percentage point above the threshold for a maximum total of \$700 per class with 10 courses maximum over two semesters. Students with maximum course load and a grade of 75% in each course could earn \$2000+ each semester.

The peer advisors were paid upper-class students trained to provide advice on skills like studying and time management as well as understanding the resources and navigation of the university system. They mainly interacted with participants by email. To be eligible for the study, students must have requested financial aid and be enrolled in at least 1.5 credits for the upcoming fall semester and in the first or second year of study. (This is a follow-up to the STAR study above.)

Cost and timing: The average treated student received about \$1,400 (\$2,040 in 2023 dollars) per student (not much more than a control student would have received based on their grades had they been in the treatment group); the paper does not report the cost of the advisors. The program took place starting with the entering class during summer of 2008.

Impact: The treatment did not increase average grades or the number of courses with grades above 70% during the program. The analysis is powered to reject effects larger than about 1 percentage point for average grades and 0.55 for or scoring above 70% . For the subsample of second-year (sophomore) students, treated students received \$180 more than the control group would have had they been in the OK program (\$1,390), suggesting treated students responded to the incentives. This effect was bigger for men than women (in contrast to the findings in the STAR study). Students who understood the payment scheme better responded more.

Sources: Angrist, Oreopoulos, and Williams (2014)

2.1.8 Vision Inspired Scholarship through Academic Achievement (VISTA)

Program: This study investigates the impact of a scholarship and academic advising program (VISTA) on college outcomes of low-income students enrolled at the University of New Mexico, Albuquerque. The intervention focused on the first four semesters of enrollment, and aid disbursements were conditional on satisfying certain academic benchmarks. The study enrolled Pell grant recipients who were state residents.

VISTA provided up to \$1,000 in additional financial aid for each of the first four semesters. The aid was conditional on milestones: \$250 for registering for 12 or more credits in the first semester and 15 or more credits in later semesters, \$250 for having a 2.0 GPA at midterm, and \$500 for finishing the semester with a 2.0 or higher GPA and the required number of credits. Each payment also required a meeting with an academic advisor to confirm they had achieved the milestones. Academic advisors prioritized VISTA students for availability and provided more personalized and comprehensive advising compared to the control. VISTA didn't provide tutoring or other support services, but advisors did refer students to on-campus resources.

Cost and timing: No formal cost assessment was provided, but the authors suggest the cost was about \$3,000 (\$4,400 in 2023 dollars) per student (about \$2,600 for the scholarship and the rest for advising). This program took place from 2008 to 2010.

Impact: During treatment, the likelihood of earning 27+ credits in the first year or 30+ credits in the second year (the number of credits required to get the full reward) increased by 8.6 and 13.1 percentage points respectively (control mean 58.9% and 35.3%), but the effects on earning credits above those thresholds did not persist after treatment ended as hoped. The program **increased five-year degree completion by 5.1 percentage points** (control mean of 33.2%); the estimated treatment effects on completion after five years are slightly smaller and statistically insignificant, but imprecisely estimated (the top of the 95% confidence interval for the treatment effect on six-year graduation is around 9 percentage points, compared to a control mean of 43%). Treated students also took out fewer student loans in their first two years.

Sources: Erwin et al. (2021)

2.1.9 Stay the Course (STC)

Program: STC was designed to increase community college completion among low-income students and was implemented at Trinity River Campus of Tarrant County College (TCC) in Fort Worth, Texas. Eligibility was restricted to students who were Pell-eligible or had incomes below 200 percent of the poverty line, newly enrolled or with a GPA of at least 2.0, and with less than 30 credit hours at TCC accumulated so far. Each student in the main treatment group, referred to as "STC comprehensive case management," was paired with a trained social service provider called a "navigator." Navigators provided individualized help to overcome barriers to college completion through coaching, mentoring, and referral services. Students receiving STC comprehensive case management also had access to emergency financial assistance (EFA) of up to \$500 per semester, capped at \$1,500 over a three-year period. The second treatment group only received EFA.

Cost and timing: The intervention occurred between 2013 and 2016 and cost \$4,343 (\$5,750 in 2023 dollars) per treated student.

Impact: This intervention had low take-up due to the sampling strategy; the TOT estimates are imprecise as a result. STC comprehensive case management **increased associate's degree completion among women after six semesters by 31.5 percentage points** (compared to a

negative imputed control complier mean). Estimates among the full sample are insignificant but imprecise, with effects as large as 38.7 percentage points in the 95% confidence interval. For the full sample, STC comprehensive case management increased the likelihood of still being enrolled in college after six semesters by 25.1 percentage points (significant at the 10% level). Effects are again more pronounced for women, with women being 35.8 percentage points more likely to be enrolled after 6 semesters (significant at the 5% level), compared to a control complier mean of 13.4. The authors find no difference in outcomes between the EFA-only treatment group and the control group.

Sources: Evans et al. (2020)

2.1.10 My Academic Plan (MAP)

Program: Academic Planning Support [My Academic Plan (MAP) advising] is an enhanced academic plan advising program implemented by the South Orange County Community College District. They aim to improve completion rates of semester-by-semester academic plans. There are two treatment groups and one control. Treatment is either a one-on-one or classroom-style workshop advising model with accompanying nudges about due dates and important reminders. Both treatment groups receive structured guidance on how to use and complete an academic plan using the MAP system. Participants were first-time freshmen who did not previously complete an approved academic plan and were not enrolled in some other form of counseling course that helped with academic plan completion.

Cost and timing: Using per-student numbers, one-on-one costs \$46, workshop costs \$27, and control group costs \$24 (\$61, \$36, and \$32 in 2023 dollars, respectively). This treatment was implemented from Fall 2014 to January 2015.

Impact: Both the workshop and one-on-one model increase the proportion of students who complete an academic plan. All estimates presented are intent-to-treat (ITT) effects. Both treatment groups saw about a **20 percentage point** increase in academic plan completion compared to the control complier mean of 18.8%. However, these effects **did not translate to higher enrollment the following semester**. Persistence to the next semester in the control group was 80%; it was slightly lower in the two treatment groups, but unfortunately they do not report standard errors.

Sources: Visher et al. (2016)

2.1.11 Virtual Coaching Completion - University of Toronto Student Achievement Lab (SAL)

Program: This intervention was developed based on the findings from a five-year effort to develop effective virtual coaching interventions using low-touch advising approaches. Treated students were selected randomly from a first-year economics course at University of Toronto. They completed a 1-2 hour online intervention on effective study and time management strategies. Study participants were assigned to one of four variations of the intervention or a control group. All four groups had access to online coaching, but the follow-up varied: (1) no follow-up, (2) follow up through one-way text messages, (3) two-way text message communication, and (3) in-person

meetings with coaches. The control group completed tasks, such as personality tests and answering questions about time preferences, that took about the same amount of time as the treatment exercises.

Cost and timing: Coaching interventions were fielded between 2015-2016 and 2018-2019. While a full cost analysis is not discussed, authors stated that the semester (four-month) cost per student for the two-way text intervention is \$15 (\$20 in 2023 dollars) when 10 paid coaches are hired and \$9 (\$12 in 2023 dollars) when Research Opportunity Program students are volunteer coaches.

Impact: None of the interventions significantly improved student grades or persistence. Across the cohorts, the sample was large, and the estimates are reasonably precise nulls. Supplementary findings show the treatments did increase the likelihood that students met with a tutor or instructor; and four years after the interventions, treated **students still studied an additional two hours per week**. Descriptive analysis shows that students respond to academic challenge both by increasing study time and by lowering expectations.

Sources: Oreopoulos and Petronijevic (2023)

2.1.12 Detroit Promise Path

Program: The Detroit Promise Path (DPP) is a student services program created by MDRC and the Detroit Regional Chamber in 2016. Its goal is to help Detroit high school graduates enroll and succeed in community colleges. The cornerstone of the program is access to campus coaches to assist with adjusting to college. Students begin meeting with a coach the summer before their first semester of college and receive a \$50 gift card for each month they meet with their coach at least twice. Students also receive encouragement to enroll and are connected to resources such as summer job programs. The program builds on the pre-existing Detroit Promise program which covers local community college tuition and fees for up to three years, contingent on students enrolling in college within three semesters of high school graduation. Together with the Promise, this is arguably a comprehensive intervention, but the control group also has access to the Promise, so we include it in the advisor and navigator category.

Cost and timing: In 2016 and 2017, two-thirds of eligible incoming students at five Detroit-area community colleges were offered DPP. Their outcomes were assessed three years later. DPP cost \$648 per program student per year, adding to \$1,944 (\$2,540 in 2023 dollars) per student over the course of three years.

Impact: DPP increased persistence and credits earned after three years. However, it **did not have a statistically significant effect on degrees earned**. All estimates are ITT. DPP increased the average number of semesters students remained enrolled by 0.4 (compared to a control mean of 2.5) and average credit hours completed by 3.7 (compared to a control mean of 13.5). Only 6.8% of the control group earned a credential at the end of three years; the estimated treatment effects are precise enough to rule out meaningful increases in completion among the treatment group.

Sources: Ratledge et al. (2021, 2019); Ratledge and Vasquez (2018)

2.1.13 Monitoring Advising Analytics to Promote Success (MAAPS)

Program: Monitoring Advising Analytics to Promote Success (MAAPS) project is an advising intervention initiative targeting low-income and/or first-generation college students. The MAAPS advising program was implemented across eleven large public four-year colleges and included three main components: regular, personalized degree planning with an advisor; an alert system tied to academic planning and degree programs (providing advisors guidance on when to reach out to students and about what); and targeted advising guided by the analytic system. Students entered the program at the start of their freshman year and continued until the end of their third academic year.

Cost and timing: No cost breakdown provided by the three studies. The interventions were fielded from Fall of 2016 through Spring of 2020.

Impact: The studies did not find evidence that **MAAPS increased college completion and persistence on average**. The authors argue this may be due to students not taking up advising. With large variation in buy-in from the broader advising community, only six out of the 11 institutions implemented MAAPS in accordance with most of the criteria originally outlined; advising take-up was inconsistent and at some institutions quite low. The study did find significant effects of the program on secondary outcomes (as specified in the pre-analysis plan) at Georgia State, the campus that originally developed the program. Treated students at Georgia State saw a **0.16-point increase in GPA**, and an average of **6 more credit hours earned** compared to the control (2.94 GPA and 85.5 credits). These effects are even stronger for Black participants at Georgia State, with an average of 0.22 GPA point increase and 12 more credit hours earned (control is 2.75 GPA and 83.0 credits). However, the program did not have statistically significant effects on persistence and graduation, even at Georgia State, but the confidence intervals are wide.

Sources: Alamuddin, Rossman, and Kurzweil (2018, 2019); Rossman et al. (2021)

2.1.14 Holistic Enhanced Advising Research Trial (HEART)

Program: HEART is an enhanced advising intervention that targets students halfway through their college career at UNC Greensboro. The program wanted to target students with some risk of dropping out; they enrolled students who had earned at least 60 earned credits and had mid to low academic achievement (GPA 2.0-2.99). HEART provided students with additional consolidated and simplified information about their financial aid for their remaining time in college and about their academic progress. Students were encouraged to discuss the consolidated information with their advisors, who had a reduced caseload. Participants received \$150 if they met with their advisor twice per semester. The program lasted two semesters for each participant.

Cost and timing: An average of \$1,032 (\$1250 in 2023 dollars) per student. The study took place in 2020-2021.

Impact: HEART did not improve 4- or 5-year completion rates overall (they can reject effects larger than about 7 percentage points); the control means were 46% and 78% for 4- and 5-year completion, respectively. HEART increased **4-year completion for male students by 13 percentage points** (ITT), a large effect relative to the control mean of 30%. The point estimates suggest a **5.8 percentage point increase in 5-year completion for males**, but the estimate is not statistically significant. The program may have reduced time to degree for males more than attainment, though the study is somewhat underpowered. (Gender was the only pre-specified sub-group with a statistically significant effect on completion.)

Sources: Hemelt, Mange, and Raynor (2024)

2.1.15 InsideTrack Reenrollment Campaign

Program: This InsideTrack intervention was a one-on-one coaching program aimed to improve college attendance and completion outcomes for low- and middle-income students in California who attended college but left prior to earning a degree. The treatment group was offered an InsideTrack coach and the control group was given information on college re-entry steps. Only about half of students offered a coach reported ever interacting with them and of those that did, 36% had at least one phone call. The preferred communication method was text message. Interactions with the advisor focused on creating and improving students' reenrollment plans and identifying and addressing barriers to reenrollment.

Cost and timing: There is no cost assessment provided. The study included two cohorts that were recruited between 2020 and 2021.

Impact: The authors find no evidence that treatment increased college enrollment. This finding does not differ by subgroups like race, parental education, or gender. They also find no effect on supplementary outcomes like FAFSA submission and persistence rates. **They estimate precise null effects**; most of the point estimates are below one percentage point, and the 95% confidence intervals rule out effects larger than 2 percentage points. The study took place during the COVID pandemic which may have affected the results.

Sources: Turner and Gurantz (2023)

2.2 ACCESS PROGRAMS

2.2.1 Advising (professional)

Program: Professional College Advising was an RCT that provided college counseling to high-achieving students from relatively low-income families located in CT, MA, NY (only some NYC boroughs), and RI. The treated high school seniors were offered 10 hours of individualized college advising. This advising was standardized into three sections covering where to apply, completing applications, interpreting financial aid offers, and selecting a college. College counselors were recruited from well-known high schools and worked with 1-2 students. They mainly met in public places near the student's home or at the student's or counselor's school.

Cost and timing: No formal cost analysis. Counselors were paid at \$50 per hour, for 10 hours. And, each student was given \$100 as a stipend for their participation. So, the cost of the program was up to \$600 (\$930 in 2023 dollars) per participant (some students did not meet with their advisor the full 10 hours). The treated students graduated in the spring of 2007.

Impact: The study did not find significant differences in admissions or application quality, but the sample was small (n = 52). Supplementary findings show that there was a significant increase in applications submitted to “Most Competitive Group 2” colleges (1.8 applications vs control average of 1.2, significance level 10%). Those offered counseling have a **9.3 percentage point higher likelihood of enrolling in a “Most Competitive” college**, compared to control (who were more likely to enroll in a “Highly Competitive” college), showing that treatment likely moved students on the margin between ‘highly’ and ‘most’ competitive colleges.

Sources: Avery (2010)

2.2.2 Student Outreach for College Enrollment (SOURCE)

Program: Near-peer and professional college counseling intervention worked with students from late in junior year to end of senior year. Helped students with standardized testing, college applications, and financial aid. The study recruited juniors in Los Angeles Unified School District (LAUSD) who were on track to be eligible for admission to a four-year public college. Students met with their advisors in person, on the phone, or by email.

Cost and Timing: The study served students in 2006 and 2007. The program cost around \$1,000 (\$1,500 in 2023 dollars) per participant

Impact: Students in the treatment group were **3.5 percentage points more likely to enroll in a four-year college (significant at the 10% level)** and 4.4 percentage points more likely to enroll in a University of California (UC) or California State University (CSU) campus (significant at the 5% level). Effects were larger and more statistically significant for student whose primary language at home was Spanish or whose parents did not attend college (these subgroups were not pre-specified). The V-SOURCE study attempted to target these subgroups with a revised version of the SOURCE intervention.

Sources: Bos et al. (2012)

2.2.3 Amherst Telementoring Program

Program: The Amherst Telementoring Program matches current undergraduates at Amherst College with high achieving, socioeconomically disadvantaged, and first-generation high school students to help them apply to college. Advisors were Amherst students who were first-generation college students themselves. They were compensated from work-study funds, and interactions took place virtually. The program targeted first-generation college students with limited financial resources and high academic achievement who ranked well in the Questbridge application process but ultimately did not receive a scholarship through that program. The goal of the advising was to advocate for college attendance regardless of institution, offer practical

guidance to attend an academically challenging college, and to inform students about financial aid options. Coaches also helped with essays and provided advice on testing and admissions decisions.

Cost and timing: The study does not provide a cost estimate, however, there is a \$100 stipend (\$150 in 2023 dollars) offered to every high school student who participated. The cost of the advising was not reported. This program took place during the 2007-2008 school year.

Impact: The telementoring program increased applications to colleges considered “Most Competitive” by Barron’s (from 1.28 to 2.1) and the share enrolled in those colleges by 3.5 percentage points (compared to a control mean around 50%), though the estimate is not statistically significant. The sample for the study was small ($n = 79$) and the take-up was low (nearly half refused offer or had little contact with their telementor), and the reported estimates are ITT. This is a pilot study that provides suggestive evidence that mentoring can increase applications to more competitive colleges for high achieving, low-income students.

Sources: Avery (2014)

2.2.4 College Possible

Program: College Possible provides a comprehensive curriculum that teaches ACT and SAT preparation and provides college advising. This is an annual after-school program available to students in St. Paul, Minnesota, for which students apply in their sophomore year and then receive 320 hours of service over 2 years. They also must commit to 8 hours of community service per year in the program. Participating students were mostly low-income and would be the first in their family to attend college.

Cost and timing: Student in the RCT study were selected in the spring of 2010 and participated in the program starting in the fall of 2010. The study does not report program costs.

Impact: This study finds that the program produced significant increases in the number of applications submitted and the selectivity of colleges participants applied to. And although overall college enrollment didn’t increase, students in the treatment group were more likely to enroll in 4-year colleges and more competitive colleges. This is a small study, so many of the estimates are imprecise.

Sources: Avery (2013)

2.2.5 College Advising Corp (CAC)/Advise TX

Program: The College Advising Corp (CAC) uses a near-peer model where recent college graduates work at high schools to assist students in the application and matriculation process. The advisor serves the whole school, and random assignment was at the school level. Advisors have similar demographic characteristics to the students they help. Their main objective is to foster a “college-going” culture amongst their students.

Cost and timing: The program cost about \$59,000 per school; the per-student cost depends on school size, but was around \$130 (\$180 in 2023 dollars) per student. The study took place in 120 Texas public high schools starting in the 2011-2012 school year; the authors also analyze data for two more cohorts after the initial program year.

Impact: For the full sample, the estimated effect on college enrollment was **small and statistically insignificant**; the authors can reject treatment effects larger than 3 percentage points. Effects on enrollment in two-year colleges were **larger for low-income and Hispanic students** and marginally statistically significant, at 2 percentage points (10% significance level) and 3.4 percentage points, respectively. These increases are in comparison to the control means of 36.5% and 37.4% respectively. The authors note that the treatment effects were larger in the first year of the program and declined over time. They cannot pin down an explanation but find some evidence suggesting the treatment-control contrast may have declined over time due both to schools in the treatment group dropping out and schools in the control group adopting similar services.

Sources: Bettinger and Evans (2019)

2.2.6 LifeAfterHighSchool

Program: This intervention provides application assistance to seniors at Canadian high schools with low rates of transition to two- and four-year colleges (less than half of graduating class enrolls in college the following year). Participants received application assistance in three workshops that typically took place during a single regular class period. The workshops helped students pick programs that they were eligible for and interested in and then guided them through both the admission and financial aid application processes. Participants completed applications during the workshop and received fee waivers that made the applications free.

Cost and timing: The main costs are the \$100 application fee waiver and website and instructional materials (around another \$100). Combined, the cost per student is about \$200 (\$280 in 2023 dollars). This study took place during the 2011 and 2012 school years.

Impact: For Grade 12 graduates, treatment **increased college application rates by 14 percentage points** (control mean of 64%) and **college attendance by 5 percentage points** (control mean of 53%). Treatment effects were positive across subgroups, but larger for males than females. Effects on application and enrollment were largest for those who had not taken any college-track coursework or were enrolled in vocational math and English. They estimate it cost around \$4,000 to nudge one student into college that wouldn't otherwise have attended.

Sources: Oreopoulos and Ford (2019)

2.2.7 Virtual Student Outreach for College Enrollment (V-SOURCE)

Program: V-SOURCE was a college counseling intervention that targeted college-intending high school juniors in schools with high percentages of free lunch eligible or Black and Hispanic students in southern California. The intervention started in spring of 11th grade and supported students with the college and financial aid application process through the summer after senior

year; the intervention encouraged four-year college enrollment. The intervention had two nested variants. The Milestones variant was fully automated and focused especially on encouraging students to complete the key milestones in the process: registering for an ACT/SAT, taking the ACT/SAT, applying to at least two colleges, and submitting the FAFSA. Milestones participants had access to the V-SOURCE website, which provided information about each phase of the application process, as well as a specially designed SAT study curriculum. They received automated reminders to complete the key milestones, and could receive an electronic gift card (\$20) if they completed those steps. Students in the second variant of the program, V-SOURCE Complete, received everything that was in the Milestones variant and also had access to an advisor who could provide personalized reminders, information, and support for the process.

Cost and Timing: The program cost \$84 and \$529 per participant for Milestones and Complete, respectively (\$115 and \$720 in 2023 dollars). It was implemented for two cohorts in the 2011-12 and 2012-13 school years.

Impact: Despite moderate effects on the extent to which students felt supported in the college application process and completed the targeted milestones, **neither treatment had a significant impact** on four-year college enrollment; the authors can reject effects larger than 2.7 and 3.2 percentage points for Milestones and Complete, respectively. Effects were larger for Hispanic students who spoke Spanish at home (a subgroup targeted by the study based on findings from the SOURCE intervention), those who did not expect to be able to ask their parents for help with applications, and those prone to procrastination.

Sources: Phillips and Reber (2022)

2.2.8 New Hampshire (Dartmouth) Mentoring Interventions

Program: This study considered two interventions: an assigned near-peer college coach/mentor (filled by current Dartmouth undergraduates) intervention and a letter of encouragement intervention. This study enrolled seniors who expressed interest in college but had taken no steps towards application and attendance by December of their senior year; study participants were referred by the high school counselor. The coach/mentor intervention had three components: a mentor, a partially-filled FAFSA, money to cover the ACT/SAT and application fees, and, in some cohorts, a \$100 cash incentive for completing the process. The mentors visited in person at the participants' high school weekly until the application process was finished; the sessions were focused on completing all the steps to get applications done and the FAFSA started.

A second treatment group was assigned only the \$100 bonus for completing applications, but with no other support.

Participants in the Transcript/Letter of encouragement treatment filled out an online form indicating which colleges they were interested in and consented to send their transcripts. The program sent all participants' transcripts to all public colleges in NH and shared with the college if the student indicated a special interest in them. All students received information about the value

of college and encouragement to apply to the community college system. Based on their transcript, some students received a letter of encouragement from a four-year college.

Cost and timing: This study took place during three school years from 2012 to 2014. The authors estimate the marginal cost for including an additional student in the mentoring treatment was around \$300 (\$410 in 2023 dollars).

Impact: Due to sample size, not all of the interventions were tested each year. The transcript and information only treatments had no significant effects on college enrollment, nor did the \$100 bonus for college application completion on its own (though those estimates were so noisy they do not present them in the main tables). The mentoring intervention **increased college enrollment by 6 percentage points** (control mean 43.8%). The effects differed by gender: the program increased enrollment for women by 14.6 percentage points but had no significant effect for men (control means of 43.1% for men and 44.6% for women). Take-up was about 50%, so the TOT estimates are roughly twice as large. Those induced into college persisted at a similar rate as the control group: among women, the intervention increased persistence for 3 or more semesters by 13 percentage points and the share persisting for two years at a four-year college by 10 percentage points. The authors argued that the intervention worked for participants who did not have a parent to help them with their applications. They suggest the intervention is less effective for men because they anticipate higher wages without attending college.

Sources: Carrell and Sacerdote (2017)

2.2.9 College Planning Course

Program: This program provided a college planning course for seniors at 62 high schools in Michigan. Students attended at least twice a week for a typical 18-week high school fall semester for a minimum 90 minutes of total classroom instruction a week. The content of the course mirrored the college application timeline, helped students complete each step in class, and offered guidance for persisting towards a degree (for example, draft and review college essays; create FSA ID; show confirmation of completed applications). The program was evaluated using a random-assignment design; random assignment was at the school level.

Cost and timing: The study does not provide a cost estimate, although no new teachers or counselors were hired to implement this program. The opportunity cost of the program depends on the availability of teachers in the particular setting and what they would otherwise be doing. The study took place during the 2016-2017 school year.

Impact: For the full sample, the treatment did not have significant effects on college enrollment; the authors can rule out effects larger than about 2 percentage points. However, the number of students persisting and earning a degree increased. The treatment **increased persistence to year 3 by 2.5 percentage points**, compared to a control mean of 29.4%. **Associate's degree receipt also increased by 1.5 percentage points**, compared to 7.1% control mean. These effects are concentrated among high achieving students in economically disadvantaged families. The authors credit these effects on persistence to a change in the composition of initial enrollment in

college. High-achieving, low-income, students were 4-percentage points more likely to enroll compared to 69.6% in the control. Lower achieving, economically disadvantaged students saw a (statistically insignificant) reduction in initial enrollment.

Sources: Hyman (2023)

2.2.10 CollegePoint

Program: CollegePoint provides virtual one-on-one advising for the college application process. The program helps economically disadvantaged, high-achieving seniors go through the application and matriculation process. They encourage participants to apply to and enroll in CollegePoint colleges, which are typically moderately selective institutions with higher rates of persistence and degree completion than average.

Cost and timing: The average cost per student served was \$562 (\$700 in 2023 dollars). The intervention was for the classes of 2018-2020 and began in 2017.

Impact: The authors find **no significant effect on overall college enrollment** and can reject effects greater than about 1 percentage point. The program **increased enrollment in CollegePoint colleges by 2.6 and 1.3 (marginally significant) percentage points**, in the Gurantz et al. and Sullivan et al. studies, respectively; both studies reported control mean around 50%.

Sources: Gurantz et al. (2020); Sullivan et al. (2021)

2.2.11 CollegePoint Advising Plus

Program: CollegePoint Advising Plus is very similar to the standard CollegePoint intervention with the addition of up to \$1,000 in incentives to encourage take-up of services. Participants received \$50 for the first visit with a CollegePoint advisor and \$100 for each CollegePoint college applied to (four max with reward). They received \$50 for reviewing college acceptance decisions and aid packages with an advisor and \$500 for confirming enrollment at a college. Participants had to meet with their advisor monthly to maintain eligibility for the incentive payments. This study compares participants in CollegePoint Advising Plus to participants in the standard CollegePoint program without the incentives for participation.

Cost and timing: The Advising Plus program accepted students on a rolling basis between their junior spring and senior fall of 2021 and advising continued through May of 2022. There is no formal cost breakdown, but it is likely similar to the original program with an additional \$1,000 budgeted for each participant although few were awarded the full amount (about 62% attended the introductory meeting with the advisor; less than half completed the other tasks to college incentive payments).

Impact: There were **no effects on enrollment quality of the Plus intervention compared to the standard CollegePoint intervention**, the authors can reject effects greater than about 3 percentage points. This is despite the fact that that students in the Plus program did complete the incentivized steps more often and applied more broadly and to more selective colleges.

Sources: Bird and Castleman (2024)

2.3 ACCESS AND COMPLETION PROGRAMS

2.3.1 UT-Austin's Longhorn Opportunity Scholars (LOS)

Program: The Longhorn Opportunity Scholarship (LOS) program at the University of Texas at Austin (UT) was designed to increase enrollment rates among low-income and minority students. (The study also discusses a similar program offered at Texas A&M University, but features of that program made it difficult to evaluate, so we focus on LOS here.) The program targeted Texas public high schools with few prior applicants to UT and with high shares of low-income and minority students. The program hosted information sessions at target high schools and involved a combination of \$4,000 annual scholarships and access to enhanced support services. All enrolled UT students from target high schools received LOS program services, regardless of whether they qualified for the scholarship money (which was restricted to a certain number of students per high school). LOS provided extensive support, including spaces in residence halls, free tutoring, peer mentoring, and exclusive LOS sections for introductory courses.

Cost and timing: While the authors do not provide an overall program cost estimate, selected students received \$4,000 in scholarship money (\$7,300 in 2023 dollars) per year for four years; they also received enhanced support services. LOS was first implemented in 1999. The study includes students in the 1996 through 2002 high school graduating cohorts.

Impact: This study uses a difference-in-differences approach, comparing students in LOS-targeted high schools to those that attended similar high schools, before and after the program was adopted. The LOS program shifted enrollment towards UT and away from lower quality institutions it also increased bachelor's completion. Twelve years after high school, high-achieving students who attended LOS-targeted high schools and attended college had **earnings that were 4.6% higher** than the counterfactual.

Sources: Andrews, Imberman, and Lovenheim (2020)

2.3.2 I-BEST (with PACE Enhancement)

Program: I-BEST aims to quickly teach students basic, occupational, and college-readiness skills so they can move through college and into living wage jobs faster. The program is offered by community and technical college programs in Washington State and uses a team-teaching approach. Students work with two instructors in the classroom. One provides job-training and the other teaches basic skills in reading, math, or English. The PACE enhancement provided students in the treatment group with dedicated advising from a "navigator" and "fill-the-gap" financial support. Students also had access to instructor-led study groups, open labs, or tutoring. The program targeted individuals with developmental education and English as a Second Language (ESL) needs. The study evaluates the effect of access to the enhanced I-BEST program vs. no program, though control group students could access other services in the community.

Cost and timing: The study took place between 2011 and 2014. Costs are not reported.

Impact: This is an access and completion program since the program affects enrollment. The program **increased enrollment in any courses within two years by 22 percentage points** (control mean of 68%). After six years, there was no detectable effect on college credentials requiring a year or more to complete (can reject effects as large as 6 percentage points; control mean is 12%). The program increased shorter-term credential completion, but the authors find no effects on earnings six years after random assignment. The study was underenrolled and is somewhat underpowered; they cannot reject effects on 6-year earnings of around \$4,400 (95% confidence), which is about 20% of the control mean.

Sources: Martinson and Glosser (2022); Martinson, Cho, and Gardiner (2018)

2.3.3 Bottom Line

Program: Bottom Line (BL) is a college access advising intervention that aims to increase bachelor's degree completion, in part by directing students to institutions where they are more likely to graduate. Starting during the summer before the senior year of high school, BL advisors work with students to identify well-matched colleges and understand the college application process. They specifically encourage participants to consider colleges BL has identified as being both affordable and high quality (as measured by graduation rates, earnings, and loan default rates). Although the most intense advising occurs in high school, for the 50% of students who attend these partner institutions, BL offers six more years of on-campus advising focusing on academic and social support. The study recruited high schoolers in four cities (Boston, Worcester, New York, and Chicago) with a high school GPA > 2.5 and family income below 200% of poverty level. The average GPA of participants was 3.3, and 80% would be first-gen college goers.

Cost and timing: Barr and Castleman estimate that the intervention increased bachelor's degree attainment by 2 percentage points for each \$1000 spent on BL advising. The corresponds to about \$4,000 (\$5,300 in 2023 dollars) per participant. The study was conducted between 2014 and 2015 for the high school graduating classes of 2015 and 2016. Castleman and Goodman report the program cost about \$5,000 (\$7,200 in 2023 dollars) per student and that sample was drawn from the high school classes of 2010 to 2014.

Impact: Barr and Castleman report that participation in Bottom Line increased **enrollment in any college by 5.3 percentage points** (control mean 82.2%) and enrollment in a four-year college **by 9.1 percentage points** (control mean of 69.7%). Treatment increases student likelihood of obtaining a **four-year degree within four years by 6.2 percentage points** (control mean of 26.8%) and **9.6 percentage points after six years** (control mean of 52.8%). There was an offsetting reduction in associate's degree attainment of 3 percentage points. All findings are reported as ITT estimates (almost all students assigned to treatment had some contact with their advisor). BL students were more likely to enroll in "high quality" four-year colleges and those recommended by the program (where students could continue to receive advising). The authors argue that this shift to higher-quality institutions is the main mechanism driving the completion effects. Bottom Line was also evaluated using an RD design in an earlier study. This earlier study found qualitatively

similar results but some of the estimates were imprecise and the study did not follow students long enough to observe completion.

Sources: Barr and Castleman (2021); Castleman and Goodman (2018)

2.3.4 College Forward (College Possible Texas)

Program: College Forward provides individualized one-on-one advising to first generation, lower-income students in the top 60% of their high school class in Texas; the sample is about 60% Hispanic. This intervention starts in the junior year of high school and continues through college. The advisors (who are AmeriCorps participants) provide information, advice, and assistance on all components of college experience including housing, campus resources, and career planning. Participants could attend workshops and meet one-on-one with their advisors after school during junior and senior year of high school; they had continued contact with advisors virtually, via social media, and through occasional visits if the college was nearby if they enrolled in college.

Cost and timing: The cost is around \$4,400 (\$5,500 in 2023 dollars) per participant, and the study took place from 2017 to 2020 in Austin and Houston.

Impact: College Forward **increased college enrollment by 7.3 percentage points** (control mean of 60%); this is primarily driven by four-year college enrollment (treatment effect of 6.0 pp, control mean of 36%). The program also **increased persistence by 5.5 and 5.2 percentage points** in the second and third year after enrollment (control mean of 55%, 48%), respectively. **Five-year bachelor's degree completion increased by 6.5 percentage points** (control mean of 20%). Treated students attended institutions with significantly higher average SAT scores and post-graduate earnings, suggesting higher selectivity and quality.

Sources: Castleman, Deutschlander, and Lohner (2024)

3 “LOW TOUCH” INTERVENTIONS

This category includes interventions that are very inexpensive at scale. Interventions in this category are often attempting to get the benefits of counseling, coaching, and mentoring at lower cost (and make them easier to scale). Interventions in this category attempt to address one or more barrier to college access or completion, but involve little or no personalized help from a human. In some cases, the automated part of the program connects students with other resources that are already available to them or even to a person who is part of the program but provides minimal help.

3.1 COMPLETION PROGRAMS

3.1.1 Low-Touch Goal Setting

Program: This study analyzes both a performance-based goal-setting experiment and a task-based goal-setting experiment within an on-campus semester-long introductory course at a

public university. The performance-based goal-setting treatment involved asking students to set goals for their overall course letter grade and scores on the midterms and final exam. The task-based treatment involved asking students to set goals for the number of practice exams they would take before each midterm and the final exam.

Cost and timing: The performance-based goals experiment was implemented during the Fall 2013 and Spring 2014 semesters, and the task-based goals experiment was implemented during the Fall 2014 and Spring 2015 semesters. The study does not provide a cost estimate, but the cost at scale would be low.

Impact: The authors find **no statistically significant effects of performance-based goal setting**, but they do find **statistically significant effects of task-based goal setting**. The results rule out grade increases of about 1.08 points or larger (on a 100 point scale) from the performance-based intervention. Students were able to take up to 15 practice exams throughout the semester, and the task-based intervention increased the average number of practice exams that students completed by 0.1 of a standard deviation (about 0.5 of a practice exam), compared to the control mean of about 8.63 practice exams. It increased the average total course score by 0.07 of a standard deviation or about 0.74 points (significant at the 10% level), compared to a control mean of 83 points. The task-based goals were notably more effective for male students than for female students.

Sources: Clark et al. (2020)

3.1.2 Virtual Coaching interventions

Program: Oreopoulos and Petronijevic have studied a variety of virtual coaching interventions implemented at the University of Toronto (UofT). These interventions all targeted students enrolled in a first-year economics class. Three of the interventions tasked students with completing a one-time online module lasting about 60 to 90 minutes. These modules were on the topic of either goal setting, mindset development, or general student success strategies. Additionally, Oreopoulos and Petronijevic analyzed the effects of three different messaging-based coaching interventions: 1) one-way messages, 2) two-way messages, and 3) face-to-face meetings with coaches. The messaging-based virtual coaching interventions are described in more detail in the “Advisor and Navigator” section.

Cost and timing: These interventions occurred between 2014 and 2019. The studies do not provide a cost estimate.

Impact: The authors find that **none of the low-touch interventions led to a significant improvement** in grades or persistence, ruling out effects larger than 8 percent and 3.4 percent of a standard deviation (ITT), respectively. The various control groups had grade averages in the middle 60s to low 70s, with year two persistence rates in the middle to high 80s. Oreopoulos and Petronijevic (2018) do find positive effects of face-to-face coaching, but the authors later report

null effects based on an expanded sample analyzed in Oreopoulos and Petronijevic (2023) (although the estimates are somewhat imprecise).

Sources: Oreopoulos and Petronijevic (2018, 2019, 2023)

3.1.3 Nudges 2 Finish Line (N2FL)

Program: N2FL was a text message campaign designed to increase completion rates among students who had already accumulated at least half of the credits necessary to graduate. It was run by researchers in partnership with 20 broad-access colleges and universities (some two-year and some four-year). As part of the text message campaign, students received pre-scheduled text messages about once per week from an advisor or staff member at their college or university. The messages were tailored based on the college or university the student attended, and in some cases responses were personalized based on keywords in the students' responses (but they were not answered by a person). These messages encouraged students to connect with specific campus-based academic and financial resources, reminded them of relevant deadlines, and invited them to communicate via text with their institution's advisors.

Cost and timing: The study does not provide a cost estimate. It is automated, so the treatment itself is likely to be inexpensive at scale; but if students used more other resources the cost would be higher. The intervention occurred between 2016 and 2019. Treated students were enrolled in the texting program for 2-3 academic semesters.

Impact: The authors find **no statistically significant effect of the text message campaign on completion rates (ITT)**; they can rule out increases of 1.8 percentage points or larger at the 95% confidence level. This finding suggests that nudge interventions are insufficient for improving completion rates among students who have already made substantial progress toward their degree. About 76% of students in the control group reenrolled or graduated within four terms following the start of the intervention.

Sources: Bettinger et al. (2022)

3.1.4 Nudges Chatbot

Program: Georgia State University (GSU) launched a chatbot designed to improve academic performance and college completion rates through text-based nudges. The chatbot uses non-generative artificial intelligence (AI) to personalize messages based on student needs (e.g. whether the student has completed a certain task) and uses AI to respond to student questions when the questions match with information in the bot's knowledge base. Otherwise, the chatbot routes the questions to a designated responder. Research has assessed the effectiveness of three different use cases for the chatbot. The study examining the effects of an intervention using the chatbot to address summer melt is discussed below under "Summer Nudges."

Page et al. (2020) studies a GSU-wide outreach campaign led by a team of university administrators. Students assigned to the treatment group received messages related to academics (e.g. general academic success strategies and campus-based academic support

resources), social and career resources (e.g. campus events offered by the career services office), and administrative processes (e.g. deadlines for administrative processes such as filing FAFSA).

Meyer et al. (2023) studies a program implemented within high enrollment and asynchronous online introductory political science and economics classes at GSU. Treated students were sent 2-3 customized text messages each week signed by the course TA, reminding them about assignment due dates, any late/missing assignments, and opportunities to request course assistance. In both interventions, students were able to directly respond to chatbot messages with any questions that they had.

Cost and timing: The GSU-wide intervention (Page et al., 2020) occurred during the 2018-19 academic year and the course-specific intervention (Meyer et al., 2023) occurred during the 2021-22 academic year. Neither study provides a cost estimate.

Impact: Page et al. (2020) finds that **students were most responsive to messages related to time-sensitive administrative processes with clear outcomes**, such as filing FAFSA and managing unpaid tuition. For example, outreach to students with an outstanding tuition balance in Fall 2018 increased the share of targeted students who resolved their balance by 9 percentage points (compared to a control mean of 22%), halving the share of students forced to withdraw from GSU that semester (ITT). Nudges to engage in campus resources only had small effects on the likelihood of meeting with an advisor within the week of outreach, attending a career/internship fair, and engaging in an event focused on maintaining satisfactory academic progress. There were no effects on the likelihood of pursuing supplemental instruction opportunities, longer-term likelihood of meeting with an advisor, and participation in most career-related opportunities.

Meyer et al. (2023) finds that the **chatbot significantly improved students' final grades**, raising the chances that students received a B or higher by 5-6 percentage points, compared to a control mean of 61-62% (ITT). The intervention also decreased the likelihood of students dropping the course by about 3 percentage points, compared to a control mean of 8%.

Sources: Page, Lee, and Gehlbach (2020); Meyer et al. (2023)

3.1.5 Reenrollment Campaign

Program: This study analyzed a re-enrollment campaign designed to encourage re-enrollment among community college students. The sample includes former students from five community colleges in Florida who had left their college in the past three years without earning a degree, had already completed at least 30 credits, and achieved a 2.0 GPA or higher while enrolled. Students were assigned to either the control group, the "information-only" treatment group, or the "information and one-course waiver" treatment group. Students in the information-only group received 10 text messages encouraging them to re-enroll and visit a webpage that streamlined the re-enrollment process. The "information and one-course waiver" group received the same

messages but also received a one-course tuition waiver covering in-state tuition and fees for up to three credit hours.

Cost and timing: The intervention started in May 2018 and continued through December 2018, targeting students who had left their college in the past three years without earning a degree or credential. The one-course tuition waiver cost between \$303 and \$354 per student.

Impact: During the 2018-2019 academic year, the information and one-course waiver treatment **did increase re-enrollment by a statistically significant 1.5 percentage points** (compared to a control mean of 7.1%). However, **neither treatment had a statistically significant effect on persistence or completion rates** three years after the intervention, with the pooled results ruling out increases of about 1 percentage point or greater from either treatment at the 95% confidence level (compared to a control mean persistence rate of 17% and graduation rate of 11%) (ITT).

Sources: Ortagus, Tanner, and McFarlin (2020); Ortagus et al. (2024)

3.2 ACCESS PROGRAMS

3.2.1 H&R Block FAFSA

Program: This program was implemented across Ohio and the Charlotte, North Carolina area in collaboration with H&R Block. Potential participants were screened for eligibility after completing their taxes in an H&R Block office. Eligible individuals included those with incomes less than \$45,000 and a family member between ages 15 and 30 who did not already have a bachelor's degree. Once participants consented to the study, they were assigned to either the control group or one of two treatments. The "FAFSA Treatment" involved assistance completing FAFSA using a software that mostly automated the process based on tax return information. Participants then received aid estimates with comparisons to tuition costs for nearby colleges and free FAFSA submission. The "Information-Only Treatment" provided aid eligibility estimates with comparisons to nearby colleges, without the accompanying FAFSA application support.

Cost and timing: The treatment cost an average of \$88 per participant (including tax professional training and time, software and materials, call center support, and participation incentives). The intervention occurred between January and April 2008.

Impact: The information only treatment did not have significant effects on outcomes, though estimates are somewhat imprecise (the authors can rule out increases in enrollment of more than around 12 percentage points for dependent participants). However, treated dependents and adults without prior college experience that received FAFSA assistance were more likely to both apply for financial aid and attend college and receive aid, compared to the control group (ITT). Among dependents, **college enrollment increased by 8.1 percentage points** (compared to a control mean of 34.2%), with four-year enrollment increasing by 3.7 percentage points (not statistically significant) and two-year enrollment increasing by 4.7 percentage points. The FAFSA treatment **increased enrollment by about 1.5 percentage points among adults out of high school**

with no prior college experience (compared to a control mean of 9.5%), with four-year enrollment increasing by 0.5 percentage points and two-year enrollment increasing by 0.8 percentage points (the estimates for two- and four-year enrollment separately were not statistically significant). Overall enrollment estimates include the information-only treatment in the sample, while enrollment breakdown estimates only include the FAFSA treatment group and control group. Three years after the intervention, **treated dependents remained 8 percentage points** more likely to have been enrolled for two consecutive years (compared to a control mean of 28%) and independents were 1.2 percentage points more likely (compared to a control mean of 10%).

Sources: Bettinger et al. (2012)

3.2.2 Expanding College Opportunities (ECO)

Program: This study evaluates a mail-based information campaign designed to encourage high achieving low-income students to apply to more selective colleges. Through the full intervention treatment, coined “ECO-C,” students received application fee waivers and materials informing them about the college application process and the net costs associated with attending more selective colleges. The intervention targeted students who scored in the top decile of ACT/SAT test-takers, had family income in the bottom third of the income distribution (out of families with a twelfth grader), and attended a high school where no more than 30 students in each cohort typically scored in the top decile on college assessment exams.

Cost and timing: The intervention cost \$6 per student on average. It was directed toward high school seniors during the 2011-2012 academic year.

Impact: So that they could report TOT estimates, the authors surveyed a sample of students in the Fee Waiver treatment group asking whether they recalled seeing the treatment materials; about 40% of respondents recalled seeing the materials. Their TOT estimates suggest that **ECO-C encouraged students to submit 2.2 additional applications** (compared to a control mean of 4.7) and made students **30.5 percentage points more likely to apply to a “peer” institution** (defined as institutions where most of their peers would be similarly academically prepared), compared to a control mean of about 54.7%. These additional applications translated to improved acceptance and enrollment outcomes. Students were *admitted* to 0.63 additional colleges (compared to a control mean of 2.1) and were 23.3 percentage points more likely to be admitted to a “peer” institution (compared to a control mean of 30.1%). **Students were 13.3 percentage points more likely to enroll in a “peer” institution** (compared to a control mean of 28.7%). The study did not report in depth on persistence or completion.

Sources: Hoxby and Turner (2013)

3.2.3 Summer Nudges

Program: Several studies have analyzed the effectiveness of “Summer Nudging” – low-touch interventions designed to ensure that college-intending high school graduates attend college in the year after high school graduation. In most of these interventions, the “nudges” encouraged

students to connect with a counselor or other resources that students in the control group also had access to, and in that sense are not pure “low-touch” interventions, though they were still relatively inexpensive. We summarize them together here.

Castleman, Arnold, and Wartman conducted a pilot study of a summer melt intervention in 2008 (Castleman, Arnold, and Wartman 2012), offering students access to counseling over the summer. That study found large but only marginally statistically significant effects on college enrollment in the fall after high school graduation.

Authors	Sample	Program Components
Page and Gehlbach (2017)	Students committed to Georgia State University (GSU)	Personalized text messages were sent using non-generative artificial intelligence and provided guidance related to tasks required for successful college matriculation.
Castleman and Page (2015)	College-intending Class of 2013 high school graduates from one of the following partner sites: 1) the Dallas Independent School District in Dallas, TX, 2) uAspire, a Boston-based college-access organization, and 3) Mastery Charter Schools in Philadelphia, PA	One intervention used an automated and personalized text messaging campaign to remind students about pre-matriculation tasks and connect them to counselors. Another intervention connected treated students with college students who acted as peer mentors and provided support related to the college transition.
Castleman et al. (2014)	College-intending students who had either been enrolled in Fulton County Schools, a school district in the metro-Atlanta area of Georgia, or had received a scholarship from uAspire	Counselors met with students for an assessment meeting, during which they discussed financial aid, key deadlines, paperwork necessary for matriculation, and any social or emotional barriers to enrollment. Following the meeting, counselors helped students create a list of tasks to complete during the summer and followed up with students throughout the summer to ensure students were completing their tasks.

Cost and timing: The interventions all took place between 2011 and 2016. They ranged in cost between \$7 to \$15 per student for the text message-based outreach and \$80 to \$200 per student for the peer mentoring and counseling-based interventions.

Impact: Most of the interventions led to statistically significant increases in college matriculation (ITT). Page and Gehlbach (2017) find that text-based outreach increased the likelihood of **GSU-committed students** enrolling on time by **3.3 percentage points**, compared to a control mean of

84.6%. Castleman and Page (2015) find that both text messages and the peer mentoring campaign increased on-time enrollment among students that had received less college planning support during the academic year. However, the authors find **no statistically significant effects on overall enrollment for the pooled sample**, ruling out increases greater than 4.5 percentage points and 6.4 percentage points for the messaging and peer mentor interventions, respectively. Control groups had enrollment rates close to 70%. Castleman et al. (2014) find that summer counseling meetings **increased enrollment by 3 percentage points** (compared to an 82.7% control mean), with effects even larger among low-income students.

Sources: Page and Gehlbach (2017); Castleman and Page (2015); Castleman, Page, and Schooley (2014); Castleman and Page (2013); Castleman, Arnold, and Wartman (2012)

3.2.4 College Board's Student Search Service

Program: The Student Search Service is a program that institutions can use to send prospective students pamphlets, emails, and other college materials, encouraging them to apply. Colleges can pay to receive the contact information (referred to as "licensing" the students) of a sample of students who took the PSAT or SAT, opted in to the service, and meet the criteria designated by the college. When a college does not want to pay to license all of the students that meet their search criteria, College Board sends them a random subset; the authors use that randomization to assess the effects of outreach by colleges on application and enrollment decisions.

Cost and Timing: Colleges pay \$0.38 to \$0.42 per student to receive their information so that they can do outreach. This study used data from students who graduated from high school in 2015 and 2016.

Impact: Students who were licensed by a college through the Search Service were **22 percent (0.02 percentage points) more likely to enroll at that specific college**. Students also are 23 percent more likely to send their SAT scores to that college (0.1 percentage points). The effect on SAT score sends is heterogenous, with the largest positive effects found for Black and Hispanic students, students whose parents have the lowest income and least education, and students with relatively low SAT scores. The authors conclude that the program has no effect on students' broad college enrollment outcomes, but rather causes them to substitute towards enrollment in the school that did the outreach. The fact that students responded to the outreach suggests that they do not have complete information about colleges they might apply to.

Sources: Smith, Howell, and Hurwitz (2022)

3.2.5 Digital messaging to improve college enrollment and success

Program: College Board and uAspire collaborated to develop two digital messaging-based interventions designed to increase college enrollment: a national and Texas-based intervention. The national program was administered at high schools with large shares of low-income students. Treated students received monthly text messages from uAspire counselors with advice related to the college-going process and encouraging them to respond for additional remote support. 65% of students responded to at least one text, although most of these students did not

engage extensively via messages. The control group also received automated messages, but did not receive personalized responses.

Through the Texas-based program, treated students received messages every one to two weeks from their high school counselors. Students could both respond to their counselors via text and interact with them in person during the school day. 41% of students responded to at least one text, although this lower level of text-based engagement compared to the national sample may have been because students could interact with their counselors through alternative channels. Control group schools also used the texting platform but did so less frequently.

Cost and timing: The interventions targeted students from the spring of their junior year (Spring 2015) through the summer after their expected high school graduation (September 2016). The study does not provide a cost estimate.

Impact: In the national sample, the authors estimate that the treatment had **a statistically significant one percentage point decrease in on-time college enrollment** (compared to around 60% control group enrollment), potentially because uAspire counselors encouraged students to delay enrollment until they have a viable plan to pay for college. (The study reports ITT estimates; randomization was at the school level but not all students provided a phone number.) In the Texas sample, **enrollment among the treatment group is higher than the control group mean of around 50%, but the increase is not statistically significant** and the estimate rules out increases of about 4.6 percentage points or larger (ITT). Notably, for the Texas sample treated students were slightly more likely to take the SAT/ACT (significant at the 10% level) and complete FAFSA (highly significant). These differences were not present in the national sample.

Sources: Avery et al. (2021)

3.2.6 Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP)

Program: The U.S. Department of Education launched a text-messaging campaign designed to increase college enrollment and persistence among graduates of high schools with GEAR UP funding. GEAR UP targets low-income schools and includes resources such as college-related mentoring and counseling. The campaign targeted college-bound students the summer before and during their first year of college. In addition to GEAR UP resources, treated students received college-related text messages from advisors two to three times per month. Messages included reminders about important deadlines, guidance on college-related logistics, success strategies (such as having a growth-oriented mindset), and encouragement to follow up with advisors. Students could directly reply to advisors through messages and receive personalized responses.

Cost and timing: The intervention occurred between 2015 and 2017 and cost around \$15 per student (\$20 in 2023 dollars).

Impact: Messages had **no statistically significant effect** on college enrollment outcomes (ITT). 66.3% of students in the control group enrolled in college shortly after completing high school, with the estimates ruling out increases among the treatment group larger than 2.4 percentage

points at the 95% confidence level. 60.6% of students in the control group remained continuously enrolled through the year after high school, with estimates ruling out increases greater than 2.1 percentage points at the 95% confidence level.

Sources: Linkow et al. (2021)

3.2.7 High Achieving Involved Leader (HAIL) Scholarship and Go Blue Guarantee

Program: The HAIL scholarship was an intervention in which high achieving low-income seniors in Michigan’s public high schools received a personalized mailer encouraging them to apply to the University of Michigan. The mailer guaranteed they would receive a branded (“High Achieving Involved Leader”) scholarship covering tuition and fees for four years if they were admitted. Students’ parents and their school principals were also notified about this guarantee. The program made use of administrative data on GPA and ACT or SAT scores (given in school), and eligibility for Free and Reduced Price Lunch (FRPL) to target students for the study. Notably, students targeted by the intervention almost always would have been eligible for the same aid package without the HAIL scholarship. However, HAIL reduced uncertainty, providing an early guarantee.

The Go Blue Guarantee, introduced by the University of Michigan in 2017, is a statewide policy available to all in-state students; it offered a scholarship covering tuition for students with incomes below \$65,000 and less than \$50,000 in assets. In a second study, some students were offered the HAIL scholarship and a second group received encouragement to apply to UM and information about the Go Blue Guarantee; there was also a business-as-usual control group that was eligible for the Go Blue Guarantee, but did not receive a mailer. Mailers were also sent to parents and emails to high school counselors. Whereas the Go Blue guarantee requires students to complete financial aid paperwork to confirm eligibility each year, HAIL offers an “up-front, unconditional, four-year tuition guarantee.”

Cost and timing: The HAIL mailing cost about \$10 per student. High school seniors received mailings in the Fall of 2015 and 2016. HAIL students who enrolled at Michigan did not receive more aid than they would have in the absence of the program, but more low-income students enrolled at UM, increasing the cost of financial aid to the university overall. The second study took place in 2018-19 and did not provide a cost analysis.

Impact: In the original study, the HAIL intervention **increased** University of Michigan **application rates by 42 percentage points** (compared to a control mean of 26%) and **enrollment rates by 15 percentage points** (compared to a control mean of 12%) (The authors report only ITT estimates because they only know who was sent the mailer, not who received or opened it). The authors estimate that half of HAIL’s effects on enrollment stem from diversion from less-selective colleges, and the other half is due to decreases in two-year and no enrollment.

In the second study comparing HAIL and the Go Blue Guarantee, the HAIL and Go Blue treatments increased applications by 28 and 8 percentage points, respectively, compared to control; enrollment in UM **increased by 9 percentage points for the HAIL treatment, but the Go**

Blue treatment had no effect (can reject effects larger than about 7 percentage points). The authors argue that this points to the importance of certainty about financial aid earlier in the process.

Sources: Dynarski et al. (2021); Burland et al. (2023)

3.2.8 Realizing Your College Potential (RYCP)

Program: RYCP was administered by the College Board and targeted low- and middle-income students in the top 10% of the PSAT and 50% of the SAT national score distribution. The intervention was designed to increase students' enrollment in selective colleges by providing aggregated information about a diverse set of colleges and reducing application barriers. All students in the treatment group received a personalized list of potential colleges they might apply to, guidance about the admissions and financial aid application processes, advice for assessing college "fit," application checklists, and encouragement to explore College Board's BigFuture website, which contains resources to help students navigate the application process. Some students received this information via physical "mailers," similar to the ECO intervention while others received biweekly emails. Some students receiving mailers also received application-related text messages, virtual advising, or fee waivers.

Cost and timing: There was a class of 2016 cohort and a class of 2017 cohort. The intervention took place between the May before students' 12th grade year and January of students' 12th grade year (e.g. May 2015 to January 2016 for the 2016 cohort). The study does not provide a cost estimate.

Impact: The authors find **no statistically significant effects** on overall college enrollment patterns, with the results ruling out effects of 0.4 percentage points or larger at the 95% confidence level (ITT). Two-year and four-year college enrollment among the control group was 11.6% and 64.5%, respectively. There are also no significant effects on college quality conditional on four-year college enrollment – the estimates rule out effects larger than 1.4 points on the average SAT score and .2 percentage points on the six-year bachelor's completion rate at the colleges that students attend. Among the control group, the average college SAT score was 1229 and the average college-wide six-year bachelor's rate was 65.6%. The authors do find a very small increase in college quality for African American and Hispanic students. (These subgroups were not pre-specified.)

Sources: Gurantz et al. (2019)

3.2.9 EASE

Program: EASE was an initiative designed to encourage enrollment in summer classes and improve degree completion rates among Pell-eligible first-year community college students. It was evaluated by MDRC in partnership with 10 community colleges in Ohio. Students were randomly assigned to one of three groups. The control group received messages that their college normally sent about summer enrollment and financial aid. The "informational campaign" group received personalized funding and financial aid information for summer courses,

testimonials from other students about summer courses, prompts to register for and select summer courses, and reminders about summer course deadlines via email and mail. The last-dollar tuition assistance (“last dollar”) group received the same informational campaign as the other treatment group, in addition to a grant that covered the difference between summer tuition and fees and their existing financial aid package—essentially making summer courses free for them.

Cost and timing: There were 2 intervention periods. One began in spring 2017 at four institutions, and another was launched in spring 2018 at 10 institutions. The informational campaign treatment cost about \$15 per student and the last dollar treatment cost an average of \$79 per student. The cost of tuition assistance was relatively low in large part because existing financial aid covered some or all tuition costs for most students in the sample.

Impact: The **informational campaign increased summer enrollment by 5.3 percentage points** and **last dollar increased summer enrollment by 12.2 percentage points** (compared to a control mean of 26.2%) (ITT). These enrollment differences translated to higher credit accumulation among the treated groups, with the informational campaign and last dollar treatments statistically significantly increasing the share of students who completed at least one class over the summer by 3.9 and 10 percentage points, respectively (compared to a control mean of 29.1%). Assuming all effects on summer credits earned were from students induced to enroll (rather than students enrolling in additional credits), students that enrolled in summer classes because of the intervention earned an average of around 4 additional credits (one to two additional classes). While the increase in summer credits earned did not lead to higher fall retention, a year after the intervention students in the treated group had still accumulated more credits than their counterparts (although the difference is not statistically significant for the informational campaign group because estimated effect’s precision decreased).

Sources: Anzelone et al. (2020); Headlam, Anzelone, and Weiss (2018); M. J. Weiss (2019)

3.3 ACCESS AND COMPLETION PROGRAMS

3.3.1 College Board’s National Hispanic Recognition Program (NHRP)

Program: NHRP recognizes high-achieving Hispanic high schoolers based on their 11th grade PSAT/NMSQT scores. The top 2.5 percent of Hispanic scholars are identified in each of the six geographic regions, and recognition is contingent on the students confirming that they are at least one-quarter Hispanic and have at least a 3.5 high school GPA. The College Board then sends students a letter inviting them to join the program and encouraging them to use the recognition in college and job application materials. School counselors are also contacted to help the students complete paperwork and encourage them to apply to the top universities. Further, the College Board shares the NHRP scholars’ contact information to interested four-year colleges. The proposed mechanisms for impact on college-going decisions include (1) shifting students to apply to more elite institutions and (2) targeting outreach and financial incentives from colleges

that want to increase student body diversity. The authors used a regression discontinuity model to compare students just barely eligible for the award to those that are similar, but placed just below the regional top 2.5 percent threshold.

Cost and Timing: Cost is not specified. The sample is of Hispanic students graduating high school between 2004 and 2010, and the National Student Clearinghouse data that was used allowed researchers to track students for up to six years.

Impact: NHRP students were found to be **5 percentage points more likely to attend NHRP recruiting colleges and 6 percentage points more likely to attend one of the seven core recruiting institutions** (large, public institutions located outside of California and Texas that are particularly attractive to NHRP scholars). Findings on impact of NHRP status on enrollment varied strongly across regions, and much of the positive findings were driven by changes in California and Texas. This differs from findings on BA completion, which are relatively uniform regionally. The study found that NHRP status **increased BA completion by 1.3 percentage points overall**, by 4 percentage points at recruiting institutions, and by 2.8 percentage points at out-of-state schools. The authors conclude that the NHRP program induced Hispanic students to succeed at colleges they would not have ordinarily attended.

Sources: Gurantz, Hurwitz, and Smith (2017)

3.3.2 Information Nudges

Program: Several studies have analyzed the effectiveness of low-touch interventions designed to increase college enrollment by sending students information about the college application process and their college options. See below for an overview of these studies.

Authors	Sample	Program Components
Barr et al. (2022)	Academically prepared active-duty service members without a college degree who were in the process of separating from the U.S. army (with the intervention beginning on average one year before their actual separation)	The intervention provided personalized information, reminders, and advice about college and university options. Service members received a weekly combination of postal mail, email, and text message during a one-month period. They were also referred to a website where they could generate a list of recommended colleges by location.
Hyman (2020)	Michigan 11 th grade students who scored at least the statewide median in the ACT college entrance exam (an exam mandatory for Michigan students at the time)	Treated students received a letter in the mail from the Michigan Department of Education encouraging them to apply to college and referring them to a website with information about the college and financial aid application process
Bergman et al. (2019)	High school seniors who had applied to college in Texas, students who were enrolled in	All treated students received two emails describing tax benefits for college

	college in Texas, and students who had previously applied to Texas colleges but did not enroll in Texas	enrollment, and some treated students also received a mailer describing the benefits.
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Cost and timing: The interventions all occurred between 2013 and 2017. Hyman, 2020 reports an average cost per student of 50 cents. While the other studies don't provide a cost estimate, the interventions are all presumably low cost given the focus on sending mail, emails, and messages.

Impact: The studies **generally find precise null effects** from the interventions on student outcomes (ITT). Barr et al. (2022) find no impact on college enrollment, ruling out enrollment increases larger than 1.9 percentage points (compared to a control mean of 55.9%). They do observe a 1 percentage point increase in degree attainment, but they view this effect as spurious due to the number of hypothesis tests conducted and lack of impacts of the intervention on preceding outcomes such as enrollment. Hyman (2020) also finds no statistically significant effects on enrollment for all students, ruling out increases larger than 0.7 percentage points (compared to a control mean of 84.3%). There is a statistically significant increase of 1.4 percentage points in college enrollment among low-income students (compared to a control mean of 76.4%), driven by increases in four-year enrollment. The study's findings suggest that students compelled to enroll due to the intervention persisted at a lower rate than their counterparts. Bergman et al. (2019) finds no statistically significant effects of information about tax benefits on overall enrollment, ruling out effects larger than 0.7 percentage points at the 95% confidence level (compared to a control mean of 73.3). Bergman et al. (2019) also found no effects on reenrollment, ruling out effects larger than 0.4 percentage points (compared to a control mean of 62.7).

Sources: Barr et al. (2022); Hyman (2020); Bergman, Denning, and Manoli (2019)

3.3.3 FAFSA Nudges

Program: Several studies have examined interventions that employ nudging to encourage students to apply for financial aid. While the details of each intervention vary, they all use text messages to encourage students to complete FAFSA and remind them about relevant deadlines. See below for a more detailed overview of recent FAFSA nudge studies.

Authors	Sample	Program Components
Page et al. (2022)	Nationally representative sample of undergraduates attending both 2- and 4-year institutions that completed the NPSAS survey.	Text messages providing simplified information about topics including FAFSA completion requirements, academic requirements for retaining financial aid, and other safety net programs; Students were also offered to text with a remote advisor.
Bird et al. (2021)	Lower-income and first-generation high school seniors registered for the Common Application	Personalized messages via text and email encouraging students to complete FAFSA and reminding them about upcoming

	nationwide and students from a “large state” who had applied for college the previous year.	deadlines; students in the nationwide treatment arm were offered the opportunity to receive one-on-one advising.
Page et al. (2020)	High school seniors enrolled in eight public school districts in the Austin and Houston areas and with an Apply Texas account.	Weekly personalized text messages reminding students about upcoming FAFSA deadlines, providing updates on their FAFSA completion status, notifying students about support available for FAFSA filing, and allowing students to respond for text-based FAFSA assistance. Messages were sent from OneLogos, a data management and communications platform.
Castleman and Page (2016)	College freshmen who worked with UAspire (a nonprofit that provides financial aid advising) in their Boston, MA or Springfield, MA office while they were in high school. The sample was restricted to students who were part of a 2012 experiment involving text-based or peer mentor outreach.	Students received automated texts from uAspire starting during January 2013. Messages were sent approximately every 2 weeks and included topics such as financial aid opportunities, FAFSA renewal, and academic progress required to maintain financial aid. Messages encouraged students to engage with resources provided by their own college or university or attend a uAspire FAFSA renewal event.

Cost and timing: The studies had relatively low costs per student (under \$10 for all studies that reported costs) and occurred between 2013 and 2017.

Authors	Cost	Timing
Page et al. (2022)	Text messages cost \$7 per student (\$55,100 total), and advising cost \$130 per student that used advising (\$365,000 total).	February 2017 through May 2017
Bird et al. (2021)	Not reported	October 2015 through March 2016 for the nationwide sample; October 2016 through January 2017 for the “large state” sample
Page et al. (2020)	Services cost \$8 per student reached (\$60,000 total).	January 2015 through April 2015
Castleman and Page (2016)	Services cost \$5 per student served (\$2,065 total), although this excludes costs absorbed by uAspire.	January 2013 through August 2013

Impact: The study results are mixed. Page et al. (2022) and Bird et al. (2021) find no significant effects of the intervention. Page et al. (2020) find that the intervention increased FAFSA completion and matriculation to four-year colleges. Castleman and Page (2016) suggest that persistence among community college students increased, while there was no effect among four-year college students. Notably, the two studies that found significant effects were implemented on a more local level.

Authors	Effects	Average impact	Control Mean
Page et al. (2022)	Students re-filed FAFSA earlier, but the program did not lead to increased aid, improved postsecondary persistence, or higher postsecondary completion rates.	The authors find no statistically significant effects (ITT). Notably, over 25% of students opted out of messaging, and most opted out at the start of the program.	At the end of the 14-week intervention, 32% of the control group filed FAFSA. 34 weeks after the intervention started, 43% of students had filed. By the end of the 2019-20 academic year, 35% of the control group obtained a degree.
Bird et al. (2021)	No impact on aid receipt or college enrollment.	The authors find no statistically significant effects (ITT).	National sample: 82% enrolled first Fall after intervention; Large state sample: 49% of control group enrolled first Fall after intervention (44% filed FAFSA)
Page et al. (2020)	The program increased FAFSA completion and college matriculation.	College enrollment increased by 3 percentage points, with a 5 percentage point increase in 4-year institution enrollment and a 2 percentage point decrease in 2-year institution enrollment (ITT). Notably, 38% of students in the control group received some text outreach from the messaging system, suggesting that the program effects are likely underestimated. Additionally, 30% of students in the treated group did not receive text messages.	About half of the control group enrolled in college (23% 2-year institutions and 26% 4-year institutions)

<p>Castleman and Page (2016)</p>	<p>The program increased persistence of first-year students at community colleges (particularly among students with high school GPAs below 3.0), but did not impact persistence at 4-year institutions.</p>	<p>Among community college students, students were 12 percentage points more likely to enroll fall of their sophomore year and 13.8 percentage points more likely to remain continuously enrolled through Spring of their sophomore year (ITT).</p>	<p>Among community college students, 64% enrolled Fall of their sophomore year and 54% remained continuously enrolled through Spring of their sophomore year. Among 4-year students, 87% enrolled Fall of their sophomore year and 81% remained continuously enrolled through Spring of their sophomore year.</p>
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Sources: Page et al. (2022); Bird et al. (2021); Page, Castleman, and Meyer (2020); Castleman and Page (2016)

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