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College Advising at a National Scale: Experimental Evidence from the CollegePoint initiative

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In recognition of the complexity of the college and financial aid application process, and in response to insufficient access to family or school-based counseling among economically-disadvantaged populations, investments at the local, state, and federal level have expanded students' access to college and financial aid advising. Experimental and quasi-experimental studies of these programs demonstrate that they can generate substantial improvements in the rate at which low-income students enroll and persist in college. While these programs are successful at the level of individual communities, the individualized, in-person college advising model faces numerous barriers to scale. In this paper, we report early results from an RCT of CollegePoint, an innovative, national college advising initiative that pursues a technology-enabled approach to provide students with sustained, intensive advising. Students assigned to CollegePoint are modestly more likely (1.5 percentage points, or 7.5 percent relative to the control) to enroll at the most selective colleges and universities (Barron's 1 institutions), though we find no difference in enrollment patterns on other measures of college quality. We find suggestive evidence of variation in the impact of CollegePoint based on when students enrolled in the program. Students who enrolled in the spring of their junior year were 5.6 percentage points (22 percent relative to the control) more likely to enroll at one of the most selective colleges and universities in the country than students in the control group who also signed up in the spring of junior year but who were not assigned to the program.

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Abstract

In recognition of the complexity of the college and financial aid application process, and in response to insufficient access to family or school-based counseling among economically-disadvantaged populations, investments at the local, state, and federal level have expanded students' access to college and financial aid advising. Experimental and quasi-experimental studies of these programs demonstrate that they can generate substantial improvements in the rate at which low-income students enroll and persist in college. While these programs are successful at the level of individual communities, the individualized, in-person college advising model faces numerous barriers to scale. In this paper, we report early results from an RCT of CollegePoint, an innovative, national college advising initiative that pursues a technology-enabled approach to provide students with sustained, intensive advising. Students assigned to CollegePoint are modestly more likely (1.5 percentage points, or 7.5 percent relative to the control) to enroll at the most selective colleges and universities (Barron's 1 institutions), though we find no difference in enrollment patterns on other measures of college quality. We find suggestive evidence of variation in the impact of CollegePoint based on when students enrolled in the program. Students who enrolled in the spring of their junior year were 5.6 percentage points (22 percent relative to the control) more likely to enroll at one of the most selective colleges and universities in the country than students in the control group who also signed up in the spring of junior year but who were not assigned to the program.

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I. Introduction

Federal and state governments administer a variety of social programs designed to expand access to resources and opportunities, particularly among economically-disadvantaged populations. Yet, even when the benefits of program participation appear to greatly exceed the time and effort costs necessary to enroll, take-up rates are often lower than expected. Complicated application processes and complex information embedded within social programs can deter individuals from pursuing beneficial opportunities. These obstacles can lead low-income families to forego supplemental nutritional assistance, prospective college students to miss out on financial aid, or military service members not to participate in a Federal retirement savings program (Bettinger et al., 2012; Bertrand, Mullainathan, and Shafir, 2004; Dynarski and Scott-Clayton, 2006; White House Social and Behavioral Sciences Team, 2015).

In the context of postsecondary education, students and families face a series of complex decisions around college and financial aid: Identifying a high school course sequence that prepares students for college-level work; choosing which colleges best align with their abilities; and navigating a complicated financial aid application (Bettinger et al., 2012; Castleman, Baum, and Schwartz, 2015; Dynarski and Scott-Clayton, 2006; Hoxby and Avery, 2012; Hoxby and Turner, 2013; Ross et al., 2013). Students from college-educated families often rely heavily on parents and familial resources to navigate these processes. In fact, the amount of time that more affluent parents spend on their children's college application process has increased substantially over time, leading to growing socioeconomic disparities in parental time investment in the college and financial aid process—and in their children's education more generally (Lareau, 2011; Ramey and Ramey, 2009; Putnam, 2015). These inequalities are exacerbated by the lack of college and financial aid advising available in many public high schools, where student-to-counselor ratios often exceed 500:1 and where counselors typically only spend 20 percent of their time helping students with college applications (Civic Enterprises, 2012).

In recognition of the complexity of the college and financial aid application process, and in response to insufficient access to family or school-based counseling among economically-disadvantaged populations, investments at the local, state, and federal level have expanded students' access to college and financial aid advising. These programs typically assign students an individual advisor or coach, who works with them throughout senior year (and sometimes starting in junior year) to identify well-matched colleges, prepare applications, and complete financial aid

forms. Experimental and quasi-experimental studies of intensive college and financial aid advising programs demonstrate that they can generate substantial improvements in the rate at which low-income students enroll and persist in college (Avery, 2013; Barr and Castleman, 2018; Bettinger et al., 2012; Carrell and Sacerdote, 2013; Castleman and Goodman, 2015; Castleman, Page, and Schooley, 2014).[1]

While these programs are successful at the level of individual communities, the individualized, in-person college advising model faces numerous barriers to scale. One challenge is that there are many regions of the country where students are too geographically dispersed to support investment in a community-based college advising organization. This geographic dispersion could result in lower access to advising resources in rural areas despite students from these areas potentially benefiting the most from an advising program (Hoxby and Avery, 2012). Another challenge is that most of these programs have as a core programmatic component in-person, individualized advising between students and professional counselors. This model is challenging to scale broadly because of its labor intensity. Finally, several of these programs are expensive to operate, sometimes at a cost of thousands of dollars per student over the duration of their engagement with the program.

Given the challenge of scaling these programs, researchers have investigated numerous alternative strategies to deliver college and financial aid information and guidance to larger populations of students. Among a large national sample of high-achieving, low-income students, providing students with a combination of semi-customized information on well-matched colleges and application fee waivers led to substantial improvements in the quality of colleges at which students enrolled (Hoxby and Turner, 2013). But numerous other informational interventions have had no impact on students' college or financial aid outcomes (Bergman, Denning, and Manoli, forthcoming; Bettinger et al., 2012; Bird et al., 2019; Gurantz et al., 2019).

In this paper we report early results from an RCT of CollegePoint, an innovative, national college advising initiative that pursues a technology-enabled approach to provide students with the kind of sustained, intensive advising that evidence-based programs offer to students in the communities they serve. CollegePoint works with partner organizations like the College Board

[1] Intensive wraparound programs, like CUNY ASAP, that provide a combination of advising, structured course pathways, and financial assistance, have even larger impacts. The CUNY ASAP program doubled the share of community college students graduating with an associate's degree within three years (Scrivener and Weiss, 2015).

and ACT to identify and recruit high-achieving, low- and moderate-income high school juniors and seniors, and with four non-profit organizations—College Advising Corps, College Possible, Matriculate and ScholarMatch—to deliver advising to students. CollegePoint leverages a combination of phone calls, emails, and other interactive technologies (text messaging, document collaboration) to remotely connect students to one-on-one college advising. As with the Expanding College Opportunity (ECO) project (Hoxby and Turner, 2013), CollegePoint is motivated by prior research demonstrating that, faced with the complexities of the college application process and lacking access to informed guidance, as many as half of these students do not apply to or attend colleges and universities that are well-matched to their academic abilities (Bowen, Chingos, and McPherson, 2009; Hoxby and Avery, 2012; Hoxby and Turner, 2013; Smith, Pender, and Howell, 2013). CollegePoint is also intended as a potential solution to the challenge of reaching lower-income high-achievers, given how geographically dispersed they are across the country (Hoxby and Avery, 2012). As with ECO, the primary objective of CollegePoint is to increase the share of high-achieving, low- and moderate-income students who enroll at high-quality colleges and universities, which CollegePoint defines as institutions with graduation rates above 70 percent. Throughout the remainder of the paper we refer to these institutions as "CollegePoint schools."

The positive impacts of very low-cost interventions like ECO notwithstanding, recent survey data demonstrates that even when high-achieving, low-income students apply to top institutions, a substantial share do not matriculate to selective colleges and universities. In a sample of 5,800 high-achieving, low- and moderate-income students from the high school class of 2016, 84 percent indicated in a survey that they had applied to and were interested in attending a specific selective college or university. Yet only 60 percent matriculated to one of these institutions. This suggests that more intensive advising programs like CollegePoint may be necessary to affect the margin of high-achieving, low- and moderate-income students' enrollment decisions that are not influenced by lower-touch interventions like ECO.

We worked with CollegePoint to conduct a randomized controlled trial with the high school classes of 2018 and 2019, in which students who were recruited through one of CollegePoint's partners and who indicated an interest to participate in CollegePoint were randomly assigned to receive CollegePoint advising or to a control group that did not receive CollegePoint advising.[2] In

[2] In Castleman and Sullivan (2019), we report on a separate component of the CollegePoint program, a conditional cash transfer that provided students with an opportunity to earn up to $400 for applying to well-matched colleges.

the current paper we report on college application, acceptance, enrollment impacts from the class of 2018 CollegePoint experiment, which we measure through a combination of National Student Clearinghouse data and multiple surveys conducted by NORC. The experimental sample in this paper consists of approximately 9,000 students, while the combined cohort experimental sample consists of 19,000 students.

To preview our results, we find that students assigned to CollegePoint advising enroll at CollegePoint schools at the same rate as students assigned to the control group. Students assigned to CollegePoint are modestly more likely (1.5 percentage points, or 7.5 percent relative to the control) to enroll at Barron's 1 institutions, though we find no difference in enrollment patterns on other measures of college quality, such as the institutional graduation rate or instructional expenditures per student. We find suggestive evidence of variation in the impact of CollegePoint based on when students enrolled in the program. Students who enrolled in the spring of their junior year were 5.6 percentage points (22 percent relative to the control) more likely to enroll at the most selective colleges and universities in the country (Barron's 1 institutions) than students in the control group who also signed up in the spring of junior year but who were not assigned to the program. CollegePoint had no impact among students who signed up for the program in the summer before or the fall of their senior year in high school. We are in the process of exploring several potential explanations for the differences in effects by when students enrolled in CollegePoint.[3]

The remainder of our paper is structured as follows. In Section II, we provide additional background about the CollegePoint initiative. In Section III, we describe our empirical strategy, including a description of the data we use in our analysis and our estimation methodology. We present our results in Section IV, and conclude with a discussion of the importance of our findings and direction for future research and policy in Section V.

II. **CollegePoint**

Approximately 11,000 students in the class of 2018 and 2019 who were randomly assigned to CollegePoint advising were then further randomly assigned to receive CollegePoint advising and a customized list of well-matched colleges or to also receive the incentive offer along with advising and the customized list.

[3] If we observe a similar pattern of differential effects by when students enrolled in CollegePoint with the class of 2019 experiment, we will more thoroughly investigate mechanisms that could drive this differential effect.

Bloomberg Philanthropies and America Achieves started CollegePoint in 2014 to increase the share of high-achieving, low- and moderate-income students who enroll at high-quality colleges and universities across the country. CollegePoint provides students with free, remote advising throughout the college application and decision process. In partnership with several organizations, CollegePoint recruits eligible students who then receive advising from a consortium of non-profit college advising organizations. Since 2015, CollegePoint's advising partners have served over 28,000 high school seniors and are currently serving over 15,000 students from the high school class of 2019. In this section, we detail recruitment, the advising organizations, and student engagement with advising.

Recruitment

CollegePoint works with various partner organizations, including the College Board and ACT, to promote the opportunity to work with a CollegePoint advisor. To be eligible for CollegePoint, students must meet the following criteria: (1) family income below $80,000; (2) GPA of 3.5 or higher; and (3) score above the 90th percentile on the PSAT/NMSQT®, SAT®, or ACT.[4] CollegePoint followed Hoxby and Avery (2013) in its definition of "high-achieving" students. Since the SAT® and ACT offer their college entrance exam several times a year, CollegePoint receives several batches of eligible students for recruitment.

Based on the availability of eligible students and the capacity of the advising organizations, CollegePoint recruited students at multiple points during the year, via mail, email, text message, and phone calls. Students who did not take up the offer were put back into the pool of eligible students and received outreach in the following wave. For example, a student from the spring of junior year batch who received a wave of outreach in the spring but did not sign up would receive another wave of outreach in the summer.

Table 1 presents the approximate size of each eligible batch and the number of students who took up from the 2018 cohort. The take-up rate is much lower for the ACT sample because

[4] AP® and SAT® are registered trademarks of the College Board. PSAT/NMSQT® is a registered trademark of the College Board and the National Merit Scholarship Corporation.

CollegePoint was not able to recruit these students over the phone. College Board and CollegePoint jointly conducted phone outreach to students in the College Board sample. Even with phone calls, recruiting from the College Board universe yielded 33 percent of eligible students.[5]

Figure 1 shows CollegePoint student enrollment in the 2018 cohort on a bi-weekly basis. The spikes in the total number of students correspond with waves of outreach. While many students signed up at the start of their senior year, slightly less than 25 percent of students signed up before April of their junior year, and roughly 15 percent of students signed up after the end of September of their senior year. The long window in which students signed creates the potential for differences in exposure to CollegePoint. Exposure to CollegePoint also potentially differs across cohorts as the program has evolved. CollegePoint recruited the 2018 cohort, the focus of our current analysis, on a much earlier timeframe compared to the 2016 cohort. Roughly 65 percent of students from the CO2016 signed up after October.

Advising Organizations and Programming

A consortium of four non-profit college advising organizations provides the advising.[6] The advising organizations fall into one of two categories. College Advising Corps and College Possible enlist recent college graduates, either as AmeriCorps members or entry-level advisors, who typically work for two years. Advisors for these organizations work full time and serve either 130 or 230 students depending on the organization. Matriculate and ScholarMatch both rely on volunteers or part-time paid advisors, who typically work with 1-4 students each and commit to working five hours a week. Matriculate volunteers are current college students at nine colleges across the country, while ScholarMatch volunteers span a wide range of ages, professions, and are concentrated in California. Given the higher advisor-to-student ratio, College Advising Corps and College Possible work with over 75 percent of CollegePoint students.

Advisors receive training from CollegePoint and their organization. In August before students' senior year in high school and again in January after most college applications are due,

[5] The provision of advising for free was meant to entice students, but it might have raised concerns over its legitimacy. See https://talk.collegeconfidential.com/financial-aid-scholarships/2099942-is-collegepoint-worth-it-legit.html for example.

[6] A fifth organization, Strive for College, participated in College Point with the high school classes of 2015 and 2016.

CollegePoint holds a 2-3 day convening on a college campus.[7] The August training focuses on engaging with students, building a college list, and applying to college. The January training focuses on financial aid, interpreting award letters, and college decisions. The organizations provide additional training for their advisors during their organization-specific onboarding process and provide ongoing support. While College Advising Corps and College Possible provide more training during the onboarding process in comparison to Matriculate and ScholarMatch, all organizations provide ongoing weekly or bi-weekly training around topics relevant to the specific time of year.[8]

CollegePoint advisors regularly contact students through multiple media to offer help with the college search, essays, applications, and financial aid. We provide further detail below on the frequency of these interactions, the topics discussed, and students' assessment of the value of these interactions. Because of CollegePoint's focus on increasing the share of students who matriculate to high-quality colleges and universities, advisors place an emphasis on encouraging students to apply to well-matched institutions. CollegePoint uses a list of colleges—CollegePoint schools—with graduation rates above 70 percent to define high-quality or well-matched institutions.[9]

Starting with the high school class of 2018, CollegePoint tested the addition of a financial incentive component to the core advising model. The goal of the incentive was to provide additional encouragement for students to consider applying to geographically-proximate, high-quality colleges and universities. We worked with CollegePoint to randomly assign CollegePoint students between the treatment and control group. Students received either a list of target colleges only or a list along with the offer of up to $400 if they applied to four CollegePoint Schools. In Castleman and Sullivan (2019), we report on the impact of the financial incentive on the quality of students' postsecondary enrollment. In this paper, we evaluate the impacts of being assigned to CollegePoint, of which the incentive is a component of the treatment, on the quality of students' postsecondary enrollment.

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[7] The University of Michigan - Ann Arbor, Pitzer College, and University of Texas – Austin have all hosted CollegePoint convenings.

[8] College Advising Corps and College Possible provide 2-3 weeks of training during the onboarding process while ScholarMatch and Matriculate provide 2 days.

[9] The Appendix includes the list of high-quality colleges, which largely coincides with the list of schools with a Barron's ranking of 1 or 2, and a third of the Barron's 3 ranked institutions.

Engagement with CollegePoint Advising

While all students opted to receive advising, there is substantial variation in engagement with CollegePoint. We describe engagement using advisor-reported data on when and what they discussed with their advisees. Figure 2 suggests substantial variation in the utilization of CollegePoint across students and throughout the year. Panel A shows that approximately 25 percent of students who signed up for CollegePoint never interacted with their advisor and approximately 25 percent of students interacted at least 10 times.

Panel B plots the share of students who engaged by month and reveals a general decline in engagement throughout the year. Engagement is approximately 50 percent in the fall when students are making their college list and working on applications and 30 percent in the spring when students are receiving decision letters. In May, the share of students engaging further declines to 20 percent. This decline coincides with when students are making their commitment decisions and completing additional steps to matriculate to college. The decline in engagement between the fall and spring suggests that many students use CollegePoint as an advising service for the application process.

To provide a sense of whether the same students are engaging each month, Figure 3 plots the date a student last interacted with their advisor. We call the date of a student's last interaction their attrition date. We start the attrition curve in November to coincide with the end of recruitment. If all students last interacted with their advisor on May 1st, then the plot would jump from 0 to 100 percent on May 1st. The figure shows that by November, roughly 35 percent of students will never interact with their advisor again. There is slow attrition between November and March, then rapid attrition between March and the end of May. The low monthly interaction rate between December and March combined with a relatively flat attrition curve implies that students are engaging sporadically as opposed to the same students engaging each month.[10]

[10] The ideal shape of an attrition curve is not obvious. If there is heterogeneity in what students need help with, an attrition curve that jumps from 0 to 100 percent at the end of the academic year is not ideal. To allow advisors to devote more time to students who need help the most, we would want students to stop engaging when they no longer needed help from CollegePoint. It is unlikely that an ideal attrition curve includes 25 percent of students never interacting. If providing advising to the slots held by the non-engagers does not detract from the quality of advising the engagers receive, then it would be Pareto improving to allow the non-engagers to opt out immediately and replace them with additional students.

The number of interactions is not a perfect measure of CollegePoint utilization because it ignores the content covered with advising. One student might prefer to cover multiple topics in a single meeting, while another might prefer separate meetings for each topic. Table 2 presents the share of students who discussed a given topic. Using advisor-reported data, Column 1 shows that 57 percent of students discussed the college application process while only 39 percent of students discussed their college enrollment decision. The difference in discussing where to apply and where to enroll is consistent with the above attrition analysis.

Data and Descriptive Statistics

Table 3 presents descriptive statistics on the students in the full experimental sample and survey sample.[11] Roughly 45 percent were low-income, and 51 percent of students would be first-generation college students. Consistent with the high academic eligibility requirements for CollegePoint, the average SAT® score was 1374, which is roughly the 96th percentile nationally.[12] Based on their high school attended, 10 percent live in a rural area, 53 percent in a suburban area, and 37 percent in an urban area. Figure 4 depicts the number of students by state and shows that 44 percent of students are from either California, Florida, New York, or Texas.[13] Students come from nearly 2,800 school districts from across the country. Most districts (90 percent) contain five or fewer CollegePoint students, and nearly 60 percent contain a single CollegePoint student.[14]

Column 2 and 3 of Table 3 contains descriptive statistics by whether a student responded to the summer survey. One concern with analyzing data from a survey is nonresponse bias. If non-respondents differ from respondents, then it limits the generalizability or external validity of the results. Comparing columns 2 and 3 shows that respondents are similar to non-respondents along many dimensions (e.g., parental education). However, respondents were much less likely to be white (37 versus 47 percent) and more likely to be low-income (48 versus 41 percent respectively).

Since we rely on administrative data from the NSC for enrollment, the issue of external validity will not influence our main results. We are nonetheless interested in the potential direction of

[11] We are unable to compare our sample to Hoxby and Turner (2013) because they do not include summary statistics for their experimental sample.
[12] https://collegereadiness.collegeboard.org/pdf/understanding-sat-scores.pdf
[13] Based on state population estimates from the Census, these states contain 33% of the population Age 17 and younger. Ideally, we would know the state of residence for all eligible students to examine if these states are over represented in our sample.
[14] The largest 1 percent of districts contain 29 or more students and the largest six districts contain roughly 100 or more students. The largest six districts are: City of Chicago SD, Los Angeles Unified, New York City District #13, New York City District #2, Broward, and Dade.

survey response bias. One way to understand the expected sign of the response bias we compare the CollegePoint engagement of respondents and non-respondents. Figure A1 shows that the survey respondents assigned to advising had much higher rates of engagement with CollegePoint than non-respondents. The difference in engagement could impact the level of enrollment among all students as well as the treatment effect. If engagement and motivation are positively correlated, and there is similar selection into the survey among the control group, then we would expect survey respondents to have better college outcomes than non-respondents. The lower engagement rates among non-respondents also suggest that non-respondents assigned to CollegePoint were less likely to benefit from the program than respondents. We therefore expect that the estimated treatment effects from the survey sample are biased upwards compared to the effect for the full sample.

Since our sample consists of students who selected into CollegePoint, our experimental results might not be generalizable to all high-achieving, low- and moderate-income students. To try to understand selection into CollegePoint, we compare the baseline characteristics of students by whether they took up the offer. We limit this analysis to the ACT sample because we do not observe eligible non-takers through the College Board. The resulting sample contains nearly 4,200 students who signed up and 30,800 students who did not sign up.[15]

Table 4 illustrates the difference between students who took up the offer of CollegePoint and students who declined the offer. We focus on practically significant differences because we have the precision to detect small differences. Students who accepted the offer were 10.5 percentage points (18 percent) less likely to be white and 4.9 percentage points (19 percent) more likely to be from an urban area compared to students who declined the offer. The difference in urbanicity is consistent with the differences in state of residence results. Students who accepted the offer were 10 percentage points (40 percent) more likely to be from California, Florida, New York, or Texas. We caution the interpretation of our results as evidence of selection into CollegePoint because we are unable to observe how much outreach students received. For example, students could have received outreach from both the ACT and the College Board (we do not observe the latter). So

[15] We dropped 9 percent of the sample who were missing information on their high school attended. Of the 4,166 students from the ACT sample who signed up for CollegePoint, 476 were deemed ineligible resulting in 3,690 students in the experimental sample.

the differences across the samples could in part reflect differences in the amount of outreach they received as opposed to their baseline likelihood of enrolling at CollegePoint school.

Empirical Strategy

The primary goal of our study is to evaluate the effect of CollegePoint on where students enroll. We estimate the treatment effect by comparing the average outcomes of students assigned to the treatment and control group with the following specification:

(1) $Y_{ib} = \alpha + \beta_1 CollegePoint_{ib} + \delta_b + \epsilon_{ib}$

where Y_{ib} is the outcome of interest of student i in batch b. The main outcomes are enrollment at a CollegePoint school and measures of college quality (e.g, graduation rate, median SAT® score, and instructional spending per student). The variable $CollegePoint_{ib}$is an indicator for whether the student was assigned to CollegePoint. Since students were randomly assigned to CollegePoint in batches in an ongoing basis, we include a batch fixed effect, δ_b, to account for the randomization procedure. The coefficient of interest β_1, represents the causal effect of assignment to CollegePoint. We also include baseline covariates to increase the precision of our impact estimates and show our results are robust to their inclusion.

Identification in a randomized control trial relies on creating groups that differ by only their treatment status. Any difference in baseline observable and unobservable factors that are related to the outcome would bias our estimated treatment effects. We check that the randomization procedure successfully balanced observable characteristics by estimating equation (1) from above where the outcome of interest is an observable baseline characteristic. Table 5 contains the results from the covariate balance tests and shows that the treatment and control groups are equivalent at baseline. Column 3 shows a similar result among the survey sample even though the treatment group was 4.5 percentage points more likely to respond to the survey.

Results

Impacts on overall enrollment and quality of enrollment

In Table 6 we present evidence of the impact of CollegePoint on whether students enroll overall and on the quality of their enrollment. The middle columns present uncontrolled impacts while the right-hand set of columns present impacts estimates that control for baseline covariates. CollegePoint does not impact the overall share of students that enroll in college, though overall

enrollment rates are very high among this population—87 percent.[16] Nor does CollegePoint affect the share of students attending CollegePoint schools: 53 percent of both the control and students assigned to CollegePoint advising attend these institutions. CollegePoint generates a modest, marginally significant impact on whether students attend Barron's 1 institutions: 21.5 percent of the treatment group enrolls at one of these top colleges or universities, compared with 20 percent of control. This improvement in college quality appears to be a result of diverting students from lower-quality institutions. Whereas 25 percent of the control group enrolls at Barron's 4 or above institutions, only 23.1 percent of CollegePoint students do so (this effect is also marginally significant). Yet CollegePoint does not impact other measures of college quality or affordability, such as the median SAT® score of students; the average graduation rate; or the average net price of institutions that students attend.

Subgroup impacts

In Table 7 we provide evidence that the impact of CollegePoint varies considerably based on when students enroll in the program. Among spring enrollees, CollegePoint increased attendance at CollegePoint schools from 55 percent among the control group to just under 60 percent for the treatment group. This effect is driven by a 5.6 percentage point increase in attendance at Barron's 1 institutions (22 percent relative to the control), and a corresponding 5.3 percentage point reduction in attendance at Barron's 4+ institutions (24 percent relative to the control). By contrast, we find no impact of CollegePoint on attendance at CollegePoint schools for students that signed up in summer or fall.

There are several potential explanations for the large impacts of CollegePoint for students in the spring sample and null effects for the summer and fall sample. First, spring enrollees received a higher treatment dosage since they participated in CollegePoint for longer. Second, the difference in effects by start date reflects differences in student demographics. As we show in Table A1, the composition of students that signed up in the spring is quite different than students who signed up in the summer before or fall of senior year. The sample of spring enrollees had substantially greater shares of low-income students, first-generation college-going students, and

[16] This is likely a lower bound for college enrollment, since some students block their records from being shared with the NSC, while the NSC may not pick up other students' enrollment if they attend institutions that do not share records with the NSC.

students of color. Third, there could be differences in "program effectiveness" across the advising organizations. Advising organizations started serving students at different times, and the effects by start date could reflect heterogeneity in program effectiveness. Lastly, there is positive selection into when students enroll in CollegePoint. Specifically, students who may be most likely to benefit from advising are the first to enroll. Since we are in the process of exploring these explanations, we do not draw any firm conclusions in this draft.

In Table 8 we show that the overall impact of CollegePoint is quite similar across demographic subgroups. There is some indication that CollegePoint reduced the share of first-generation college-going, moderate-income, and female students attending Barron's 4+ institutions, but these effects are marginally significant and our conclusion is that CollegePoint's overall impact does not vary heterogeneously across student sub-groups. Among spring enrollees, of whom over 70 percent are first-generation college-going, we do find that the larger impacts of CollegePoint are primarily concentrated among first-generation college students. These students were 6.7 percentage points (or 26 percent) more likely to attend a Barron's 1 institution and 6.4 percentage points (or 27 percent) less likely to attend a Barron's 4 or greater institution.

Application outcomes

Leveraging data from the survey conducted in the summer after senior year, we examine in Table 9 differences in applications and acceptances. Students assigned to CollegePoint reported applying to on average 0.6 (or 20 percent) more CollegePoint schools and were 3.8 percentage points (4.5 percent) more likely to apply to any CollegePoint school. Using Barron's rankings as a finer measure of college selectivity, we find that CollegePoint students were 7.7 percentage points (or 12.8 percent) more likely to apply to a Barron's 1 institutions and no less likely to apply to a non-selective college as measured by Barron's ranking of 4 or higher.

As we show in Table A2, the impacts of CollegePoint on applications and acceptances to CollegePoint schools and Barron's 1 schools is largest for students who signed up early for CollegePoint. The impact on applications to CollegePoint schools was more modest for students who signed up in the summer before or early fall of their senior year in high school and non-existent for students who signed up in the middle of the fall of their senior year in high school.

Acceptance outcomes

In Table 9 we show that the differences in where students applied resulted in small differences in where students were accepted. Students assigned to CollegePoint advising were 2.1 percentage points (or 2.8 percent) more likely to be accepted to a CollegePoint school. The 7.7 percentage point increase in application rate to Barron's 1 institutions resulted in a 3.0 (or 8.9 percent) increase in the acceptance rate at these colleges. As we show in Table A2, the large positive effects on applications for students who signed up early for CollegePoint persisted to a similarly large increase in acceptances to the most selective colleges.

III. Conclusion

We present preliminary impacts of the CollegePoint virtual advising initiative on whether high-achieving, low- and moderate-income students attend selective colleges and universities. We find modest overall impacts, in the range of 5 percent increases relative to the control group, in the share of students attending selective institutions, though impacts in the overall sample are sensitive to how we measure selectivity of enrollment. We find suggestive evidence of more pronounced impacts for students whose participation in CollegePoint began in the spring of their junior year of high school. We will update this working paper upon obtaining college enrollment data for the second experimental cohort (class of 2019).

Table 1: CollegePoint Eligibility and Recruitment Summary

Eligibility Month	Eligibility Source	Eligible students (Batch Size)	Students who took up offer and verified eligibility
March	PSAT/NMSQT® January or March SAT®	8,000	2,666
July	May SAT®	7,000	2,383
August	June SAT®	4,500	1,278
September	ACT	18,500	1,698

Notes: The table presents the number of eligible students eligible for CollegePoint who were recruited and took up the offer by eligibility source. The batch sizes are an approximation because we do not observe non-takers from the College Board universe. After taking up the offer, students had to verify they met the income requirement. Over 20 percent of students who took up were determined to be ineligible. The table excludes 9 percent of the eligible take-up sample who did not have an eligibility date, and 7 percent of students from small eligibility batches. We use the earliest eligibility date for the 5 percent of students in both ACT and College Board eligibility universe.

Table 2: Topics Discussed by CollegePoint Students

Topic:	Share
College List	0.41
College Application Process	0.57
Financial Aid Applications	0.60
College Decision	0.39
College Transition	0.23
Administrative	0.44
Other	0.45
Observations	6923

Notes: The table displays the share of students who discussed a given topic based on advisor-reported interaction data.

Table 3: Baseline Demographic Characteristics

		Survey Response Status:	
	Full Sample	Respondents	Non-Respondents
	(1)	(2)	(3)
Female	0.54	0.55	0.52
Asian	0.26	0.28	0.23
Black	0.08	0.08	0.06
Hispanic	0.19	0.20	0.17
White	0.40	0.37	0.47
Other race	0.05	0.05	0.06
Missing race	0.02	0.02	0.01
Low income	0.46	0.48	0.41
At least one parent earned a Bachelor's degree	0.43	0.43	0.43
Neither parent earned a Bachelor's degree	0.51	0.52	0.50
Missing parent education	0.06	0.05	0.08
Took SAT® before CollegePoint	0.85	0.85	0.85
Baseline SAT® Score (Among Takers)	1374	1376	1369
Baseline AP® Exams (Among CB Sample)	3.4	3.5	3.15
Traditional Public HS	0.80	0.80	0.79
Charter or Magnet HS	0.16	0.17	0.15
Private HS	0.04	0.03	0.06
Rural	0.10	0.09	0.12
Suburban	0.53	0.53	0.54
Urban	0.37	0.38	0.35
Observations	9059	6198	2861

Notes: This table reports baseline descriptive statistics for the experimental sample. Column 1 contains the full sample, column 2 contains the survey respondents, and column 3 contains the survey non-respondents. SAT® scores are only available for SAT® takers who matched with the College Board universe. High school type and urbanicity are available for 95 percent of students.

Table 4: Sample Characteristics: Take-up vs. Offer Sample

	Non-Takers	Takers	Difference		
	(1)	(2)	(3)		
Female	0.56	0.59	0.028	(0.008)	**
Asian	0.13	0.20	0.064	(0.006)	**
Black	0.05	0.07	0.022	(0.004)	**
Hispanic	0.13	0.16	0.026	(0.006)	**
White	0.59	0.48	-0.105	(0.008)	**
Other race	0.06	0.05	-0.010	(0.004)	**
Missing race	0.03	0.04	0.004	(0.003)	
CA	0.09	0.11	0.020	(0.005)	**
FL	0.06	0.09	0.031	(0.005)	**
NY	0.04	0.08	0.032	(0.004)	**
TX	0.06	0.08	0.017	(0.004)	**
Other state	0.75	0.65	-0.100	(0.008)	**
Rural	0.20	0.16	-0.036	(0.006)	**
Suburban	0.54	0.53	-0.013	(0.008)	
Urban	0.26	0.31	0.049	(0.008)	**
Traditional Public High School	0.81	0.80	-0.009	(0.007)	
Charter High School	0.03	0.03	0.003	(0.003)	
Magnet High School	0.08	0.11	0.031	(0.005)	**
Private High School	0.08	0.06	-0.026	(0.004)	**
Observations	30778	4166			

Notes: This table reports the differences between students who accepted CollegePoint's offer and those who did not accept the offer. The sample includes eligible students from the ACT universe who were recruited by CollegePoint. Column 1 contains students who did not accept the offer of CollegePoint, column 2 contains students who accepted the offer, and column 3 presents the difference between the groups. Standard errors of the estimated difference are reported in parenthesis. (~ $p < .10$, * $p < .05$, ** $p < .01$)

Table 5: Covariate Balance Test

	Full Sample				Summer Survey			
	Control Mean	Difference			Control Mean	Difference		
	(1)	(2)			(3)	(4)		
Female	0.55	-0.01	(0.011)		0.56	0.00	(0.014)	
Asian	0.25	0.01	(0.010)		0.27	0.00	(0.013)	
Black	0.08	-0.01	(0.006)		0.10	-0.02	(0.008)	*
Hispanic	0.18	0.01	(0.009)		0.18	0.02	(0.011)	~
White	0.41	-0.01	(0.011)		0.39	-0.01	(0.014)	
Other race	0.06	0.00	(0.005)		0.05	0.00	(0.006)	
Missing race	0.02	0.00	(0.003)		0.02	0.00	(0.004)	
Low income	0.45	0.00	(0.011)		0.48	-0.01	(0.014)	
At least one parent earned a Bachelor's degree	0.43	0.00	(0.011)		0.43	0.01	(0.014)	
Neither parent earned a Bachelor's degree	0.51	0.00	(0.011)		0.52	-0.01	(0.014)	
Missing parent education	0.06	0.00	(0.005)		0.05	0.00	(0.006)	
Took SAT® before CollegePoint	0.85	0.00	(0.009)		0.84	0.02	(0.011)	~
Baseline SAT® Score (Among Takers)	1370	2.13	(2.288)		1370	3.75	(2.813)	
Baseline AP® Exams (Among CB Sample)	3.27	0.14	(0.060)	*	3.35	0.16	(0.075)	*
Traditional Public HS	0.79	0.00	(0.010)		0.80	0.00	(0.012)	
Charter or Magnet HS	0.17	-0.01	(0.009)		0.17	-0.01	(0.011)	
Private HS	0.04	0.00	(0.005)		0.03	0.00	(0.005)	
Rural	0.10	0.00	(0.007)		0.09	0.01	(0.008)	
Suburban	0.53	0.00	(0.012)		0.53	0.00	(0.015)	
Urban	0.37	-0.01	(0.012)		0.38	-0.01	(0.014)	
Observations		9059				6198		

Notes: This table reports treatment-control differences on baseline characteristics for the full sample and summer survey sample. Column 1 presents the control group mean for the full sample, and Columns 2 presents the treatment-control difference from estimating equation (1) with a demographic characteristic at the outcome. Columns 3 and 4 contain the control mean and treatment-control difference for the sample of students who completed the summer survey. Standard errors are reported in parenthesis. (~ $p < .10$, * $p < .05$, ** $p < .01$)

Table 6: CollegePoint Effects on College Enrollment

	Control Mean	Baseline Diff.			Covariate Adjusted Diff.		
	(1)	(2)			(3)		
Enrolled	0.87	-0.006	(0.008)		-0.006	(0.008)	
Enrolled at school of type:							
CollegePoint	0.53	0.004	(0.012)		0.004	(0.011)	
Barron's 1	0.20	0.015	(0.009)		0.015	(0.009)	~
Barron's 2	0.23	0.003	(0.010)		0.002	(0.010)	
Barron's 3	0.20	-0.004	(0.009)		-0.003	(0.009)	
Barron's 4+	0.25	-0.020	(0.010)	*	-0.019	(0.010)	~
Observations		9059			9059		
College Characteristics:							
SAT® midpoint %tile	88.67	0.352	(0.286)		0.309	(0.279)	
Instructional expenditures per FTE ($1,000s)	22.00	0.635	(0.513)		0.673	(0.501)	
Graduation rate	0.73	0.005	(0.005)		0.005	(0.005)	
Net price: Family Income 30-48k	12417	-127	(155.408)		-102	(154.108)	
Net price: Family Income 48-75k	16106	-52	(160.703)		-32	(159.047)	
Observations		7891			7891		

Notes: This table reports the effects of CollegePoint on college enrollment using data from the National Student Clearinghouse. The bottom panel restricts the sample to students who enrolled in college. Column 1 reports the control group average for each outcome. Columns 2 and 3 report results from a regression of the outcome on an indicator for assignment to CollegePoint. The baseline specification includes batch fixed effects, and student baseline covariates are added to the covariate adjusted specification. Standard errors are reported in parenthesis.(~ p < .10, * p < .05, ** p <.01)

Table 7: CollegePoint Effects on College Enrollment by Take-Up Date

		Enrolled in a CollegePoint School				Enrolled in a Barron's 1				Enrolled in a Barron's 4+			
	N	Control Mean	Covariate Adjusted Diff.			Control Mean	Covariate Adjusted Diff.			Control Mean	Covariate Adjusted Diff.		
		(1)	(2)			(3)	(4)			(5)	(6)		
Spring	1719	0.55	0.048	(0.027)	~	0.26	0.056	(0.025)	*	0.22	-0.053	(0.022)	*
Summer/ Early Fall	3331	0.59	-0.002	(0.020)		0.22	0.018	(0.016)		0.2	-0.005	(0.016)	
Mid Fall	2807	0.47	0.004	(0.020)		0.16	-0.004	(0.015)		0.29	-0.026	(0.018)	
Late Fall	1202	0.49	-0.021	(0.029)		0.17	0.011	(0.022)		0.26	0.003	(0.027)	

Notes: This table reports the effects of CollegePoint on enrollment by when students signed up. The column header lists the enrollment sector and the row header lists the signup period. Column 1, 3, and 5 reports the control group average for each outcome. Columns 2, 4, and 6 report results from a regression of the outcome on an indicator for assignment to CollegePoint, baseline covariates, and batch fixed effects. (~ p < .10, * p < .05, ** p <.01)

Table 8: CollegePoint Subgroup Effects

		Enrolled in a CollegePoint School				Enrolled in a Barron's 1				Enrolled in a Barron's 4+			
	N	Control Mean	Baseline Diff.			Control Mean	Baseline Diff.			Control Mean	Baseline Diff.		
		(1)	(2)			(3)	(4)			(5)	(6)		
First-generation	4194	0.52	0.014	(0.017)		0.21	0.022	(0.014)		0.25	-0.025	(0.015)	~
Non-first-generation	4260	0.54	-0.017	(0.017)		0.19	-0.001	(0.013)		0.24	-0.007	(0.014)	
Low-income	3955	0.55	0.00	(0.017)		0.23	0.021	(0.015)		0.22	-0.002	(0.015)	
Medium- or High-Income	4499	0.52	-0.004	(0.016)		0.18	0	(0.012)		0.26	-0.026	(0.014)	~
Low-supply	2718	0.40	0.006	(0.020)		0.16	0.008	(0.016)		0.28	-0.023	(0.019)	
Medium-supply	2620	0.55	0.004	(0.022)		0.18	0.014	(0.017)		0.24	-0.03	(0.018)	
High-supply	3116	0.63	-0.005	(0.019)		0.25	0.009	(0.017)		0.21	-0.007	(0.016)	
Female	4521	0.54	0.012	(0.016)		0.22	0.018	(0.014)		0.25	-0.028	(0.014)	*
Male	3932	0.53	-0.014	(0.018)		0.18	-0.001	(0.013)		0.23	0.001	(0.015)	

Notes: This table reports the effects of CollegePoint on enrollment for different subgroups. The column header lists the enrollment sector and the row header lists the subgroup. Column 1, 3, and 5 reports the control group average for each outcome. Columns 2, 4, and 6 report results from a regression of the outcome on an indicator for assignment to CollegePoint, baseline covariates, and batch fixed effects. (~ p < .10, * p < .05, ** p <.01)

Table 9: CollegePoint Effects on Applications and Acceptances

	Application Outcomes				Acceptance Outcomes			
	Control Mean (1)	Covariate Adjusted Diff. (2)			Control Mean (3)	Covariate Adjusted Diff. (4)		
Number of Applications/Acceptances to CollegePoint Schools	3.37	0.66	(0.072)	**	1.70	0.13	(0.044)	**
Applied/Accepted to school type:								
CollegePoint	0.84	0.04	(0.010)	**	0.76	0.02	(0.012)	~
Barron's 1	0.60	0.08	(0.013)	**	0.34	0.03	(0.013)	*
Barron's 2	0.60	0.05	(0.013)	**	0.51	0.04	(0.014)	**
Barron's 3	0.51	0.04	(0.014)	**	0.47	0.04	(0.014)	**
Barron's 4+	0.53	0.01	(0.014)		0.51	0.00	(0.014)	
Observations		6198				6198		

Notes: This table reports the effects of CollegePoint on applications and acceptances using data from the summer survey. The column header lists the outcome type and the row header lists the school type. Column 1 and 3 reports the control group average for each outcome. Columns 2 and 4 report results from a regression of the outcome on an indicator for assignment to CollegePoint, batch fixed effects, and individual controls. (~ p < .10, * p < .05, ** p <.01)

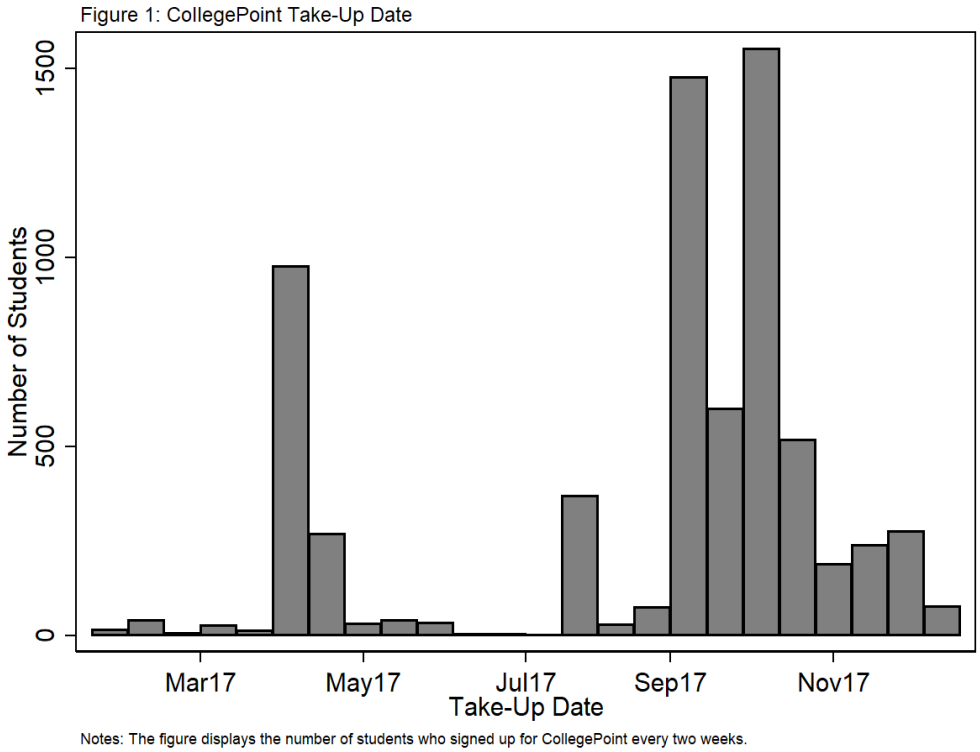
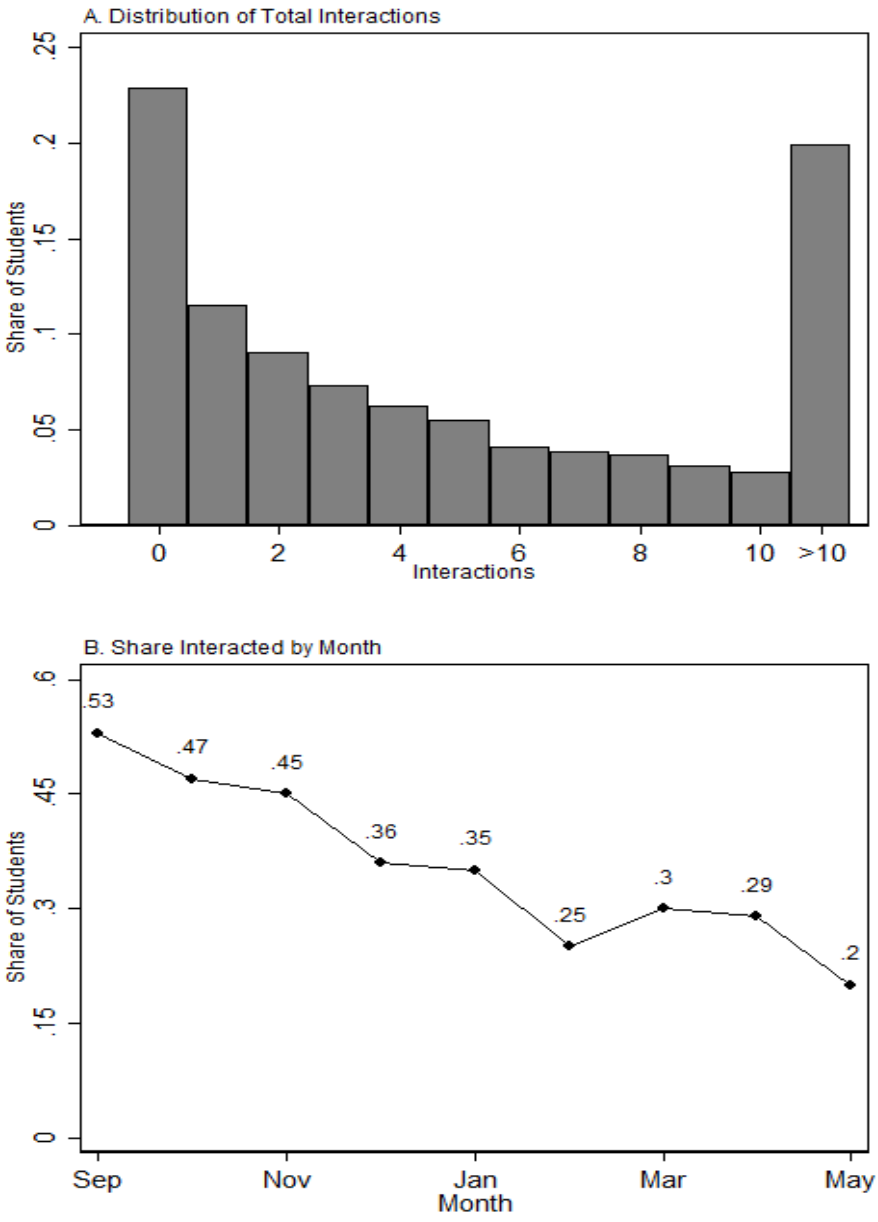
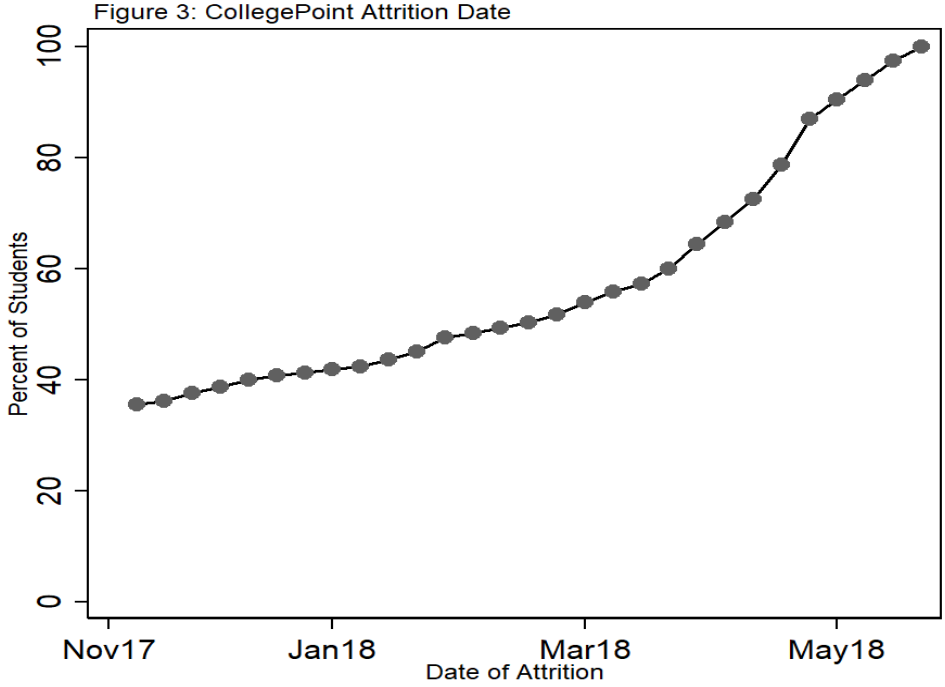


Figure 2: Interactions with Advisor



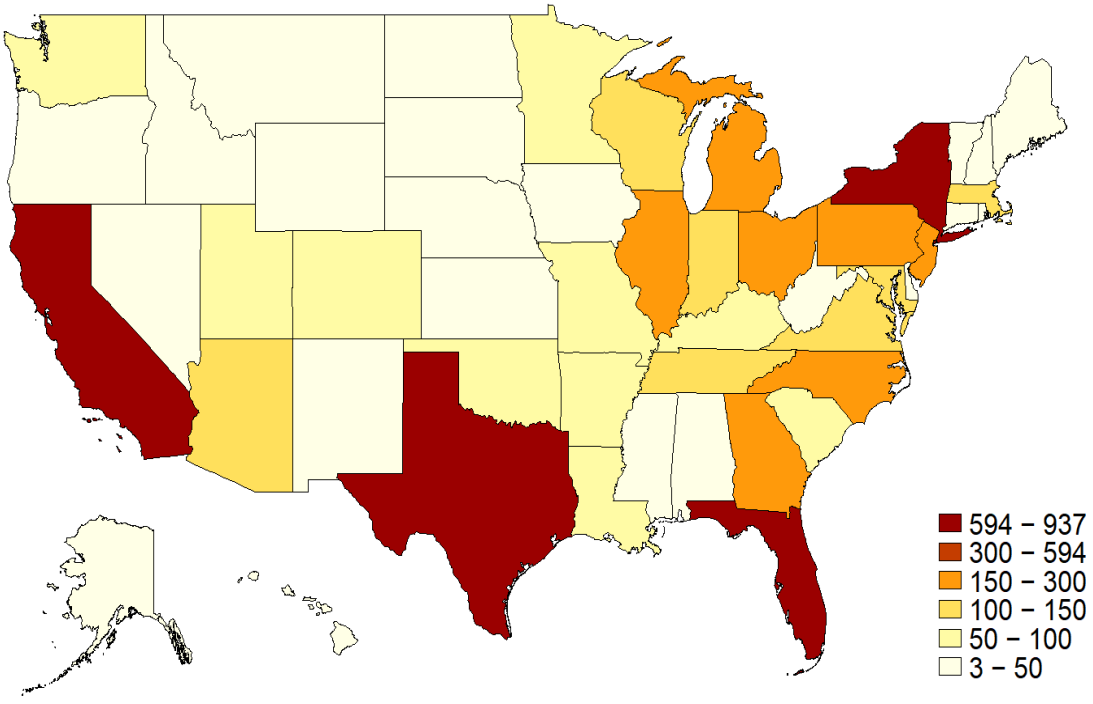
Notes: Panel A presents the distribution of the number of interactions. Panel B presents the share of students who interacted in a given month. Figures are based on advisor-reported data.

Figure 3: CollegePoint Attrition Date



Notes: The figure displays the cumulative percent of students who have stopped interacting with their advisor by a given week. The plot starts in November once recruitment in nearly complete.

Figure 4: CollegePoint Students by State



Notes: The figure documents the number of students from the class of 2018 assigned to receive CollegePoint advising by state.

Table A1: Baseline Demographic Characteristics by Take-Up Date

	Spring	Summer/ Early Fall	Mid Fall	Late Fall
	(1)	(2)	(3)	(4)
Female	0.50	0.52	0.52	0.71
Asian	0.36	0.31	0.21	0.15
Black	0.07	0.07	0.06	0.13
Hispanic	0.26	0.20	0.15	0.18
White	0.28	0.36	0.50	0.45
Other race	0.04	0.05	0.06	0.06
Missing race	0.00	0.01	0.03	0.02
Low income	0.64	0.50	0.31	0.41
At least one parent earned a Bachelor's degree	0.25	0.49	0.48	0.43
Neither parent earned a Bachelor's degree	0.75	0.50	0.41	0.45
Missing parent education	0.01	0.02	0.11	0.12
Took SAT® before CollegePoint	0.65	0.95	0.88	0.83
Baseline SAT® Score (Among Takers)	1382	1385	1373	1306
Baseline AP® Exams (Among CB Sample)	4.01	3.45	3.03	2.84
Traditional Public HS	0.75	0.79	0.83	0.79
Charter or Magnet HS	0.22	0.17	0.12	0.17
Private HS	0.03	0.04	0.05	0.04
Rural	0.07	0.09	0.12	0.13
Suburban	0.49	0.54	0.56	0.52
Urban	0.44	0.38	0.32	0.35
Observations	1719	3331	2807	1202

Notes: This table reports baseline descriptive statistics for the experimental sample by when they enrolled in CollegePoint. SAT® scores are only available for SAT® takers who matched with the College Board universe. High school type and urbanicity are available for 95 percent of students.

Table A2: CollegePoint Effect on Applications and Acceptances by Take-Up Date

	Spring				Summer/ Early Fall				Mid Fall				Late Fall			
	Control Mean	Covariate Adjusted Diff.			Control Mean	Covariate Adjusted Diff.			Control Mean	Covariate Adjusted Diff.			Control Mean	Covariate Adjusted Diff.		
	(1)	(2)			(3)	(4)			(5)	(6)			(7)	(8)		
Applied CollegePoint	0.82	0.09	(0.023)	**	0.89	0.03	(0.014)	~	0.81	0.04	(0.019)	~	0.81	0.00	(0.027)	
Applied Barron's 1	0.62	0.15	(0.029)	**	0.68	0.07	(0.022)	**	0.53	0.07	(0.024)	**	0.58	-0.01	(0.035)	
Applied Barron's 4+	0.49	-0.06	(0.033)	~	0.50	0.02	(0.024)		0.57	0.01	(0.026)		0.56	0.06	(0.038)	
Accepted CollegePoint	0.76	0.05	(0.027)	~	0.82	0.01	(0.018)		0.71	0.04	(0.022)		0.73	-0.02	(0.031)	
Accepted Barron's 1	0.37	0.11	(0.032)	**	0.37	0.02	(0.023)		0.27	0.02	(0.022)		0.36	-0.05	(0.034)	
Accepted Barron's 4+	0.48	-0.07	(0.033)	*	0.48	0.01	(0.024)		0.55	0.01	(0.026)		0.54	0.06	(0.038)	
		1286				2374				1747				791		

Notes: This table reports the effects of CollegePoint on applications and acceptances by when students signed up. The row header lists the outcome and the column header lists the signup period. Column 1, 3, 5, and 7 reports the control group average for each outcome. Columns 2, 4, 6, and 8 report results from a regression of the outcome on an indicator for assignment to CollegePoint, baseline covariates, and batch fixed effects. (~ $p < .10$, * $p < .05$, ** $p < .01$)

Figure A1: Distribution of Total Interactions
by Survey Response Status