Keep Me in, Coach: Can Coaching Improve Marginal College Students' Outcomes?

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Preliminary, please do not circulate

Abstract

This paper evaluates a light-touch group coaching program intended to enhance college persistence of first-year students who are at risk of dropping out. Participants attend a workshop aimed at normalizing failure, where coaches help them identify their academic difficulties and work on goal-setting and time management skills. Using a difference-in-discontinuity design, we show that the program raises students' first-year GPA and decreases first-year dropout rates. Effects are concentrated among low-income students, who also experience significant increases in their 6-year graduation rate and earnings at ages 24 to 27. Our findings indicate that targeted group coaching can be an effective way to improve marginal students' college success.

JEL Classification: I23, I24, J16

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1 Introduction

The labor market returns to a four-year degree are substantial and have been rising over time (Hoekstra, 2009; Zimmerman, 2014), with low-income students realizing the largest economic gains (Goodman et al., 2020). The rising wage premium has been met with a steady increase in college enrollment, but bachelor's degree attainment remains low. Only 60% of students at public 4-year U.S. institutions obtain a bachelor's degree within six years from initial enrollment (College Board, 2019), and rates are even lower for students from disadvantaged backgrounds.[1] In light of these facts, the question of how to boost college completion rates is at the forefront of policy discussions. One such avenue that has been considered is academic support programs such as coaching and mentoring, but evidence on their effectiveness is mixed. The most successful programs deliver intensive, high-touch and continuous support making them expensive and difficult to scale (Oreopoulos and Petronijevic, 2018).

In this paper, we examine whether a less intensive and lower-touch coaching program has the potential to improve college students' academic and labor market outcomes. The program strategically incorporates two low-cost features that have proven effective at influencing student behaviors in other academic settings. First, it is targeted. We focus on retaining students who are on the margin of dropping out or being dismissed from the institution for poor performance. Targeted interventions have been shown to be highly effective, but can be costly to implement as it is often difficult to identify the students who will benefit most (Carrell and Sacerdote, 2017).[2] We overcome this challenge by taking advantage of an existing policy—used universally in higher education—which labels students who are at risk of dropping out. Second, the program is conducted in a group setting. Exposure to peers with similar academic difficulties may allow students to feel supported. Indeed, programs in which group activities are a key component, such as learning communities, have been shown to greatly improve students' academic outcomes (Weiss et al., 2015).[3] In addition to the distinct features of the coaching program, we utilize multiple sources of administrative data to estimate the effect of coaching on college retention and labor market outcomes. The existing literature focus solely on academic outcomes, but understanding if treatment effects persist to the labor market provides a more comprehensive view of the benefits of coaching.

[1] Among low-ability students enrolled at 4-year public postsecondary institutions in the U.S., the 6-year BA completion rate is 55% for students from high-income families versus 33% for their low-income counterparts (College Board, 2019).

[2] Carrell and Sacerdote (2017) find that an intensive coaching program targeting high school seniors who are at risk of not applying to college, substantially increases college enrollment and persistence.

[3] Weiss et al. (2015) find that learning communities, which mainly co-enroll students into two or more courses, have persistent positive effects on community college students' credit accumulation.

The coaching program studied in this paper is implemented at a large selective, public 4-year university in California and delivers mandatory in-person coaching to first-year students who are placed on academic probation. We target students on probation in the first quarter of their first year, as those who receive this label are at highest risk of dropping out and likely have the most to gain from coaching (Lindo et al., 2010). Participants of the program attend a two-hour workshop, where they are divided into small groups led by faculty and staff who are trained as coaches. Coaches help students identify the sources of their academic difficulties, find solutions to address their challenges, and work on goal-setting and time management. Following the workshop, students are required to either use a campus resource once (e.g., office hours or counseling services) or have a follow-up one-on-one meeting with their coach.

We draw on rich administrative data for all first-year students entering the university in fall cohorts 2007 to 2017. Students' academic outcomes are observed each quarter until they separate from the institution, allowing us to evaluate the impact of coaching on course performance, dropout rates and degree attainment. These data are linked to administrative files from the State of California's Employment Development Department which includes quarterly employment and earnings information for all Unemployment Insurance-covered employment in California for the years 2000-2020. To estimate the causal effect of the program, we leverage the fact that first-year students are assigned to the program if their GPA is less than 2.0 during their first quarter. Students who score below this threshold are also placed on academic probation precluding us from using a standard regression discontinuity design. However, because the program was introduced in 2009, we further leverage the fact that cohorts entering after that date were exposed to both academic probation and coaching, while those enrolled before that date were only exposed to academic probation. Consequently, we implement a difference-in-discontinuity (DiRD) design which compares the difference in outcomes for students on either side of the 2.0 GPA eligibility threshold in the 2009 entering cohort and later (treated cohorts) with this same discontinuity for the cohorts entering prior to 2009 (control cohorts). The DiRD estimates the discontinuity in outcomes for treated cohorts and differences out any potential discontinuities in control cohorts' outcomes, thereby isolating the impact of the coaching program from probation.

We find students incur large academic gains from participating in the coaching program. Overall, the program increases participants' first-year GPA by 16.4 percent of a standard deviation, increases credits earned in the remainder of the year by 1.2 and decreases their likelihood of dropping out at the end of first year by 8.6 percentage points (pp). We also find a positive albeit imprecisely estimated impact on 6-year graduation rates. Effects are more pronounced for groups of students who are expected to benefit most from such programs.

We find the coaching to be particulary beneficial to men, students majoring in science, technology, engineering and math (STEM) and those from lower-income backgrounds. The program increases 6-year graduation rates for lower-income students by a significant 13.6 pp. These findings are unsurprising given that low-income students and men persist in and complete college at much lower rates than their counterparts (Bailey and Dynarski, 2011), and attrition rates for STEM majors are typically high (National Center for Education Statistics, 2013).

To explore the mechanisms underling the main effects and to determine which aspects of the program explain its effectiveness, we utilize data taken from pre- and post-program surveys administered to all students in select years who participated in the coaching program. Using an individual fixed-effects model, we find that by the end of the program students feel significantly more supported by a faculty or staff member, are less likely to feel that they are the only ones struggling, are more familiar with the university's student services and, are better at managing their time. On the other hand, we detect no significant changes in their motivation, likelihood of attending class or feeling that they are connected to a community at the university.

Finally, a key advantage of our analysis is that we can examine whether the academic benefits of coaching persist in the labor market. In our full sample, we show that the coaching program has positive but imprecise impacts on students' earnings at ages 24 to 27 (approximately).[4] For the subgroups of students who benefit the most from the program academically, we document large and statistically significant earnings gains. Specifically, coaching increases male and low-income students' earnings by about 30 percent. Point estimates among STEM majors are similar but less precise. The magnitude of these effects are comparable to previous estimates of earnings gains from attending 4-year college for academically marginal students in the U.S. (Zimmerman, 2014). Taken together, our findings indicate that providing marginal students with targeted group coaching largely improves their academic and labor market outcomes.

Our paper is related to a broad literature which examines ways to effectively boost low college completion rates. A large body of work has considered the role of financial aid in increasing college attainment. While some studies document positive impacts of need-based programs (Dynarski, 2003; Bettinger et al., 2019; Angrist et al., 2020), merit and federal aid programs seem to be less effective (Bettinger, 2015; Cohodes and Goodman, 2014; Bulman and Hoxby, 2015). Other studies emphasize that higher per student public

[4]Specifically, we focus on earnings in quarters 25-40 (6-9 years) after initial enrollment (where quarter 1 is the fall quarter of the student's first year). The typical student enrolls at age 18, so that this corresponds to ages 24-27.

spending increases degree completion (Bound and Turner, 2007; Deming and Walters, 2017), as postsecondary institutions may allocate the additional resources towards academic support services (Deming, 2017).

We contribute to the group of studies that consider the role of academic supports. Despite the potential for academic supports to boost college students' success, evidence on their effectiveness is mixed. Light-touch and inexpensive interventions such as online goal-setting exercises or coaching delivered via emails and text messaging have no significant impacts on academic outcomes (Oreopoulos and Petronijevic, 2018, 2019; Dobronyi et al., 2019). On the other hand, several recent studies find that proactive and individualized coaching and advising are highly effective leading to long-lasting improvements in academic performance and college persistence (Bettinger and Baker, 2014; Barr and Castleman, 2018; Canaan et al., 2022).[5] Additionally, comprehensive programs which offer an array of structured student supports are particularly successful (Clotfelter et al., 2018; Page et al., 2019; Weiss et al., 2019; Evans et al., 2020). For example, Weiss et al. (2019) show that ASAP—a multifaceted 3-year program in which participants are offered a variety of supports such as proactive one-on-one advising, financial aid, weekly tutoring and incentives to enroll in the same classes—substantially increases community college graduation rates.

Our paper adds to this literature in two important ways. First, we focus on a coaching program that is lower-touch and is delivered in a shorter time span (one quarter) than other successful interventions. Students in our setting are required to attend only one group coaching workshop and hold one individualized meeting with their coach. In contrast, a common feature of all aforementioned effective programs is that coaches or advisors are proactive, as they regularly initiate contact and schedule one-on-one meetings with their students. Furthermore, most interventions are implemented for at least one academic year—with some lasting multiple years.[6] While effective, these programs are expensive and often difficult to scale (Oreopoulos and Petronijevic, 2019). Instead, the nature of the coaching program studied in this paper make it a lower-cost and potentially more scalable way to effectively

[5]Coaching seems to be most effective when it is proactive. Previous work finds that non-proactive coaching has limited positive effects on students' academic performance, with effects dissipating once the intervention ends (Angrist et al., 2009; Scrivener and Weiss, 2009; Angrist et al., 2014).

[6]Specifically, Barr and Castleman (2018) report increases in college enrollment and persistence due to Bottom Line (BL), a program which offers intensive counseling to students starting their senior year in high school and up to 6 years after high school. BL counselors meet one-on-one with first-year college students around 3 to 4 times per semester. Bettinger and Baker (2014) document a rise in persistence from InsideTrack, a for-profit coaching service offered to non-traditional college students where coaches regularly initiate contact via phone and keep in touch with students. Oreopoulos and Petronijevic (2018) implement a one-year coaching intervention at a Canadian University in which they instruct coaches to be proactive and offer personalized regular support. Their coaching intervention substantially increased academic performance.

improve college outcomes. Understanding which student supports are most cost-effective is important as per student resources at U.S. postsecondary institutions have been declining over time (Bound et al., 2010).

Second, a unique aspect of the current study is that it documents the impact of a coaching program on students' labor market outcomes. To the best of our knowledge, no prior study has attempted to look at whether the benefits of academic support services (i.e., coaching, advising or multifaceted programs) extend to the labor market. While we cannot conclusively establish that *all* program participants realize labor market gains, we nonetheless show that our coaching program substantially increases earnings of students who benefit the most from it academically (i.e., male and low-income students). As such, our findings are the first to suggest that access to support services is not only key to addressing academic challenges, but may also provide students with long-lasting labor market benefits.

The rest of this paper is organized as follows. Section 2 details the institutional background. Section 3 describes the data that we use. Section 4 outlines the identification strategy. Sections 5 and 8 respectively present the main results and discuss the mechanisms behind our effects. We conclude in section 9.

2 Background

The setting for this study is a large selective, public 4-year university located on the Central Coast of California. The university serves approximately 21,000 students with a focus on undergraduate education, particularly in engineering and agriculture fields. To provide context, for the 2019-20 academic year, the acceptance rate was 28% and tuition and fees (excluding books, supplies, room/board etc.) were nearly $10,000/year for California residents and $25,000 for out-of-state and international students. The 2019 entering cohort of first-time freshmen had an average high school GPA of 4.1 (on a 5.0 scale), an average SAT score of 1,375 and an average ACT score of 29. Admitted students at this institution score among the top 20% nationally on the SAT exam.

2.1 First Year Success Program

Like many institutions, this university is concerned with retention and completion rates. Not only are these metrics important inputs into university rankings, but administrators are also aware that it is costly to students—both directly and indirectly—to begin and not complete a degree, as they are unable to realize the associated wage premium. In an attempt to improve these outcomes, in 2009 the university introduced the First Year Success Program

(FYSP)—a mandatory academic coaching program for first-time freshmen who qualify for academic probation during the fall quarter of their first year. It has always been the case that students are placed on academic probation if their term GPA or cumulative GPA falls below 2.0.[7] While the intent of academic probation is to serve as a warning or motivate students to improve their performance, there is a concern that it is ineffective or may even discourage some students. In light of this concern, FYSP was intentionally designed to take a different approach from the standard academic probation corrective measure. FYSP curriculum is designed based on Psychologist Dr. Albert Bandura's Theory of Self-Efficacy. The theory posits that individuals with sufficient levels of self-efficacy have confidence in their ability to exert control over their motivation and behavior and, consequently, are able to achieve specific performance benchmarks. As such, FYSP aims to improve self-efficacy. The program was first implemented as a pilot in the fall of 2009 for 4 of the 6 colleges, and was extended to the entire university the following year.

This institution operates on a quarter calendar where there are three eleven-week terms that make up the academic year: fall quarter, winter quarter and spring quarter. Students who earn below a 2.0 GPA in quarter 1—their first fall quarter at the institution—are required to complete FYSP the beginning of quarter 2 (winter quarter). The program consists of two parts: (1) a two-hour workshop led by trained faculty coaches that takes place the first week of winter quarter and, (2) a mandatory campus engagement assignment to be completed by week 5 of that quarter. For the assignment, students choose between either visiting a campus resource and completing a reflection assignment, or attending a one-on-one follow-up meeting with their workshop coach and completing a reflection assignment. The university typically offers two workshop dates to accommodate student and faculty schedules. There are about 320 students who qualify for the program each fall quarter and almost all of them participate in one of the two workshop sessions. A small share of students are unable to attend the session due to a scheduling conflict and complete the requirement one-on-one with a trained coach. To enforce participation, students are unable to enroll in spring quarter courses until they have completed all parts of the program.

The two-hour workshop is broken into two parts: thirty minutes with all session participants (typically about 150 students) followed by a one and half hour breakout session with a smaller group of 6-8 students led by a 1-2 trained faculty or staff coaches. The goal of the large group portion of the workshop is to normalize failure and to show students that they are not the only ones at the university who experienced academic challenges in their first quarter. During this part of the workshop, students watch a video featuring various

[7]Students on probation are subject to dismissal if their cumulative GPA does not exceed the 2.0 threshold by the end of their first year.

high profile people who have overcome challenges and failure. The FYSP leadership team presents students with information on campus resources including tutoring services, health and well-being services, counseling services and cross cultural services including the Gender Equity Center, Pride Center and Multicultural Center (see Appendix C). They also outline the rules of Academic Probation and Academic Disqualification in an attempt to remove some of the anxiety surrounding these titles.

The second part of the workshop is meant to be more interactive and discussion-based. It involves a breakout session with a smaller group, typically 6-8 students, led by a trained coach. Coaches are faculty and staff from across the university who have undergone a two-hour training led by the FYSP leadership team. The emphasis of this portion is on identifying weaknesses and goal setting. Students are allotted time to reflect on factors that may have contributed to their academic struggles in the fall quarter; i.e., academic challenges (time management, study skills, class attendance and school/life balance), college adjustment difficulties (roommate issues, homesickness, difficulty finding resources and difficulty fitting in) and personal hardships (mental or physical health issues, personal or family crises and identity based isolation). To guide this process, participants work through a worksheet pausing to discuss their responses with the group. The worksheet, presented in Appendix C, is set up in three steps: identifying weaknesses, identifying solutions or resources that can aid in overcoming these weaknesses, and goal setting for the current quarter. The intent of this exercise is for students to leave the workshop with a tangible plan to change their academic trajectory going forward. During this time, participants are also required to fill in a time management worksheet where they are encouraged to allocate time for classes, studying and social activities (Appendix C).

2.2 Academic Probation (confounding policy)

Most higher education institutions have some form of Academic Probation. Probation is a policy that flags students who have fallen below a minimum threshold to remain in good academic standing. At this institution the threshold is determined by the minimum GPA of 2.0 which is a "C" grade average. At the end of each quarter, students who have a cumulative GPA or a term GPA below a 2.0 are placed on academic probation and are promptly notified of this status via email. Students remain on probation until their term and cumulative GPA are above the 2.0 threshold. First-year students are granted a probationary period of the first year to improve their GPA above this threshold. If they fail to meet this mark by the end of their first year (spring quarter), they are subject to dismissal and are not eligible to

return for their second year.[8]

Probation has been shown to negatively impact student outcomes. In their seminal study, Lindo et al. (2010) show that probation increases some students' chances of dropping out of college and reduces graduation rates. In a related vein, Ost et al. (2018) show that university dismissal policies, for which probation is a precursor, lead to substantial losses in future earnings.[9]

3 Data

All data in the main analysis are student-level and come from three sources: (1) administrative records from the university office of Institutional Research, (2) FYSP participation files, and (3) pre- and post-FYSP survey responses from the First Year Success Program office which are discussed in detail in Section 8. The full sample includes 11 entering cohorts of first-time freshmen who enrolled at the university in a fall quarter between 2007 and 2017 (45,864 students) and tracks them by quarter through graduation or until they separate from the university. In an auxiliary analysis, these data are then augmented with labor market outcomes from the California Employment Development Department and are described in Section 7.

The administrative transcript files provide a detailed view of students' academic progress allowing one to examine a rich set of outcomes. We observe by student-quarter: enrolled courses, course grades, cumulative GPA, academic major, probation status and the timing of separation from the university either as a dropout or graduate. Q1 is defined as a student's first fall quarter at the university, Q2 and Q3 correspond to their first winter and spring quarters, respectively. Understanding student performance in year one is of primary interest as students qualify for the coaching program in Q1 and complete it in Q2. As such, the main outcome of interest is dropping out at the end of first year, Q3. Q3 dropout takes the value of 1 if a student does not appear in the data the following academic year (Q5-Q7).[10] Q1 and Q2 dropout are coded in a similar fashion. Other outcomes of interest include graduating: whether a student graduates in four years (on-time graduation) and six years (a proxy for ever graduating). We construct two additional outcomes, Q2 + Q3 GPA and Q2 + Q3 total

[8]Students in their second year and beyond are granted one quarter to improve their academic standing such that they are no longer on probation before being eligible for dismissal.

[9]Other studies find that students on academic probation improve their GPA through strategic course-taking (Casey et al., 2018) and switching majors (Wright, 2020).

[10]This coding of Q3 dropout allows a students to take several quarters away, perhaps to study abroad or for employment reasons, and not be coded as a dropout. The results, however, are robust to alternative ways of defining Q3 dropout including coding Q3 equal to 1 if a student never appears in the data again following Q3 or if they don't appear in the fall quarter of their second year (Q5).

credits earned, to capture a student's academic performance in the rest of their first year.[11] These files also contain a rich set of time-invariant background characteristics including a students' gender, race/ethnicity, high school GPA, parental education, whether they are required to enroll in remedial math and English courses, their expected family contribution (EFC) as determined by the Free Application for Federal Student Aid (FAFSA) and eligibility for the Federal Pell Grant program.

Probation status is observed in the administrative files and takes the value of 1 if a student is labeled with academic probation in a given quarter. Based on the probation policy assignment rule, students who score below a 2.0 GPA in a given quarter are placed on probation. For this analysis, Q1 probation status is of primary interest. Figure A1 confirms that indeed the probability of Q1 probation is solely determined by Q1 GPA for both treated and control cohorts. The probability of probation changes sharply at the 2.0 threshold.[12]

The administrative files are merged with FYSP participation records to identify which students complete the program. Recall, FYSP assignment is determined by Q1 GPA less than 2.0. Figure 1 shows the likelihood of program participation by Q1 GPA for all entering cohorts from fall 2010 to fall 2018; i.e., since the inception of the coaching program.[13] Indeed, there is a sharp jump at the 2.0 GPA threshold of the likelihood of FYSP participation. No student with a first quarter GPA above the threshold of 2.0 participates in FYSP while virtually all students scoring below the 2.0 cutoff participate.[14] Together, Figure A1 and Figure 1 confirm that probation status and FYSP participation is indeed binding in practice and is based solely on Q1 GPA.

Summary statistics are presented in Table 1. While column 1 presents means for the full sample to provide context, column 2 reports summary statistics for the 22,225 students who are part of the analysis sample; i.e., the marginal students scoring between 1 and 3 GPA points in their first quarter at the university. Relative to the full sample, the analysis sample has more men (56% vs. 52%), more non-white students (42% vs. 38%) and is lower-income. The share of Pell Grant-eligible students is 19% compared to 16% in the full sample. Moreover, this group experiences relatively worse academic outcomes. More than half of the students in the analysis sample are placed on academic probation at some point during their

[11] While GPA is a common measure of performance used in the literature, it is only defined for students who are enrolled in Q2 and Q3. As a way to circumvent this selection issue, we also analyze total credits earned in Q2 and Q3, as that is defined for all students in the sample.

[12] Unfortunately, the probation variable indicator is missing for the 2010-2016 entering fall cohorts. As such, our first stage is based on the freshmen in the fall cohorts 2007, 2008, 2009 and 2017.

[13] We exclude students from the few faculties who where selected for the pilot program in 2009 from this analysis as we do not have program participation data for these students.

[14] Each fall quarter there are a few students (less than 10) who qualify for the program but who are granted a wavier by the Dean of their college and are thus excused from participating in FYSP. These waivers are typically reserved for extenuating circumstances such as health shocks or family emergencies.

college career and 8% dropout after first year. Consequently, the 4- and 6-year graduation rates for the students around the 2.0 GPA cutoff are 35% and 77%, respectively; much lower than the full sample.

Columns 3 and 4 report summary statistics for the group of students in the control cohorts. This constitutes a sample of 4,294 students enrolled in all colleges in 2007 and 2008, and the 2 colleges in 2009 that did not participate in the pilot program.[15] Column 3 includes the students who are placed on probation (GPA $\in [1, 2)$) and column 4 is students scoring just above the 2.0 GPA cutoff (GPA $\in [2, 3)$) and, thus, are not on probation. Columns 5 and 6 present summary statistics for the 16,241 students in the treated cohorts. We split this sample into those eligible for both programs, GPA $\in [1, 2)$, as presented in column 5 and those who are barley ineligible, GPA $\in [2, 3)$, as presented in column 6.

4 Empirical Methods

4.1 Visual Motivation for DiRD Design

We begin by presenting graphical motivation for the DiRD design. Figure 2 presents RD plots for several outcomes separately for treated and control cohorts with first quarter GPA as the running variable. All figures take similar forms in that circles represent local averages over a 0.1 GPA score range. All figures are drawn over a bandwidth of 1 GPA point on either side of the cutoff using a linear fit. Figures in the left panel summarize effects at the 2.0 GPA cutoff for students in control cohorts (exposed to probation policy only), while those on the right present effects for those in treated cohorts (exposed to FYSP + probation).

Figure 2 provides visual evidence of meaningful differences between students exposed exclusively to the probation policy (control cohorts) and those exposed to probation and FYSP (treated cohorts). Figure 2a and Figure 2b highlight significant first year dropout differences between control and treated cohorts at the cutoff. Students who just qualify for probation are 10.9 pp more likely to drop out after first year compared to those who just evade probation. This large and meaningful gap at the cutoff is heavily reduced to a statistically insignificant 2 pp for cohorts exposed to probation and FYSP. Under the assumption that the negative effects of probation are similar for all cohorts, this suggests that students who qualified for the coaching program experienced significantly lower dropout rates compared to those not exposed.

[15] The following colleges participated in the 2009 pilot: College of Agriculture, Food, and Environmental Sciences; College of Business; College of Engineering; and College of Architecture and Environmental Design. The College of Science and Mathematics and College of Liberal Arts did not participate.

While there is not strong visual evidence that FYSP changes students probability of graduating on time——comparing Figure 2c and Figure 2d——there is for 6-year graduation rates as shown in panels e and f. We find control cohorts with GPAs just below the threshold are 9.1 pp less likely to graduate in 6 years compared to treated cohorts who are only 4.7 pp less likely. Finally, Figure 2g and Figure 2h show that while students exposed to probation were not significantly affected in terms of first year GPA, those exposed to both programs experienced a large and significant 16 percent of a standard deviation increase in performance at the cutoff. That is, FYSP seems to have positive grade impacts on marginal students. While this exercise provides suggestive evidence of a positive impact the program, we next turn to an econometric framework using a DiRD design to more rigorously probe this possibility.

4.2 Difference-in-Discontinuity Design

To identify the causal effect of coaching, we draw on variation in exposure to the coaching program within cohorts and across cohorts. First, in the spirit of a regression discontinuity (RD) design, we leverage variation in FYSP participation that arises from the strictly enforced FYSP assignment rule which is a function of first quarter GPA at the university. Students who score below a 2.0 GPA in quarter 1 are required to complete FYSP and those above the threshold are excluded from the program. In a standard RD framework, if this cutoff is orthogonal to student characteristics, any observed discontinuity in outcomes around the threshold can be attributed to FYSP. However, because the FYSP assignment rule is identical to the academic probation assignment rule, the interpretation of the standard RD estimate will capture both the effect of FYSP and probation. To isolate the effect of FYSP net of the confounding probation policy, we further leverage the fact that some cohorts were exposed to FYSP and others were not. The FYSP pilot was introduced in the 2009 academic year for a subset of colleges at the university, and for all cohorts in all colleges 2010 to present. Thus, the 2007, 2008 and some students in the 2009 cohort were exposed to the probation rule but not to the FYSP assignment rule. We refer to the pre-program cohorts as control cohorts. All other cohorts were eligible for FYSP and probation, and are defined as treated cohorts.

Formally, we implement a difference-in-discontinuity research design. Intuitively, this design estimates the discontinuity in outcomes across the 2.0 GPA cutoff for cohorts exposed to both FYSP and probation and then purges the effects of probation by differencing out any discontinuity in outcomes for cohorts exposed to the probation policy only.

The estimation equation is as follows:

$$
\begin{aligned}
Y_i = {} & \beta_1 + \beta_2 GPA_i + \beta_3 Treat_i + \beta_4 Below_i + \beta_5 (Treat_i * GPA_i) \\
& + \beta_6 (Below_i * GPA_i) + \beta_7 (Below_i * Treat_i) + \beta_8 (Below_i * Treat_i * GPA_i) \\
& + \rho_c + \gamma X_i + \epsilon_i
\end{aligned} \tag{1}
$$

Y_i is the outcome of interest for student i. GPA_i is the running variable and represents student i's normalized first quarter GPA relative to the cutoff of 2.0.[16] $Treat_i$ is a binary variable that takes the value of 1 for treated cohorts, corresponding to all students exposed to both the probation policy and FYSP, and 0 for control cohorts exposed only to the probation policy. $Below$ is a binary variable that takes the value of 1 for students scoring below the GPA cutoff of 2.0 and 0 otherwise. The interactions with GPA_i allow slopes to vary on either side of the GPA cutoff as well as across treated and control cohorts.

The parameter of interest is β_7, which represents the difference in the discontinuous jump in the outcome at the 2.0 GPA cutoff, between treated and control cohorts.[17] X_i is a vector of controls composed of students' predetermined characteristics—high school GPA, gender, race, required enrollment in remedial math and English courses, Pell Grant eligibility, EFC and parental education—and is included to improve precision by reducing residual variation in the outcome variable. ρ_c is cohort fixed effects which control for any common shocks and overall trends in the outcome. Finally, ϵ_i represents the error term. We report robust standard errors rather than clustering. Clustering with a discrete running variable yields confidence intervals with worse coverage properties but without resolving specification bias issues (Kolsar & Rothe, 2018).

As formalized in Grembi et al. (2016), when both policies induce sharp RDs the validity of the DiRD estimate, β_7, requires that three identifying assumptions hold.

A1. Potential outcomes are smooth across the threshold (standard RD assumption).

A2. The effect of the confounding policy, probation, is constant over time (akin to the DiD parallel trends assumption).

A3. Local average treatment effects (LATEs) are additively separable.

Section 6 presents several pieces of evidence in strong support of A1 and A2 . Unfortunately, probation is never observed absent FYSP making it difficult to assess the plausibility of A3.

[16] In the main tables of results we report estimates using bandwidths for the running variable of 0.75 and 1.0 GPA points on either side of the cutoff. Figure A2, reports point estimates across a range of bandwidths.

[17] The parameter β_3 summarizes the average difference in outcomes for students scoring above the 2.0 cutoff in the treated versus control cohorts. The parameter β_4 represents the average difference in outcomes for students scoring below to those scoring above the cutoff in the control cohorts.

If A3 does not hold, it does not bias the estimate of β_7, rather it shapes its interpretation. We discuss this in more detail in Section 6.

5 Results

5.1 Academic Results

The main results come from estimating Equation (1). Table 2 reports the point estimates using two different bandwidths, 0.75 (panel A) and 1 GPA points (panel B). All estimates are reported with and without controls to ensure results are robust to the inclusion of predetermined student characteristics. Columns 1 through 3 present DiRD estimates for Q1, Q2 and Q3 dropout, respectively. As shown in columns 1 and 2, we find no significant treatment effects on Q1 or Q2 dropout indicating that FYSP had no effect on dropout during the first year. The null effect on Q1 and Q2 dropout is reassuring given the timing of the program and the probationary period for first-year students; program participation is in Q2 and university policy states that a student is not subject to dismissal for poor academic performance until the end of the first year (Q3). On the other hand, we find large and statistically significant treatment estimates on dropout directly following first year (column 3). FYSP decreases marginal students' Q3 dropout rates by 7.3 to 8.8 pp, an approximate 30% decrease from the baseline dropout rate of 30% for students placed on probation in pre-program years. All estimates reported in column 3 are robust to the inclusion of predetermined student characteristics and bandwidth choice; see Figure A2.

Consistent with the improved first year retention, the program also positively impacts academic performance in the rest of the first year. Column 4 shows standardized Q2 + Q3 GPA improves by a large and significant 16.4-17.1 percent of a standard deviation, depending on bandwidth choice.[18] Column 5 reveals that the program increases total earned credits in quarter 2 and quarter 3 by approximately 1.3 which is roughly 6% from a baseline mean of 21.9.

Columns 6 and 7 report treatment effects for graduation outcomes. The program does not appear to improve on-time graduation, as the point estimates for four-year graduation are small and indistinguishable from zero (column 6). There is suggestive evidence, however, that 6-year graduation rates are affected (column 7). While the point estimates are imprecise, they are positive and relatively large in magnitude. Given that the program targets students lower down in the grade distribution, it is not surprising that it has no effect on the likelihood

[18] For comparison reasons, we standardize Q2 + Q3 GPA within cohort to mean zero, standard deviation 1.

of graduate on time. A more plausible story, one inline with our findings, is that the program reduces dropout at the end of the first year (as shown in column 3), and students who remain because of this, are more likely to eventually graduate than those who just missed out on the program.

The documented benefits produced by this relatively lighter-touch intervention are particularly compelling. To quantify the cost-efficiency of the program and compare it to other successful coaching programs, we calculate a program cost-effectiveness index (CEI) in the spirit of Dynarski et al. (2013). This index accounts for both the benefit and cost of the program by dividing the program's costs per student by the proportion of affected students.

The total yearly cost of the FYSP program is $64,107.5. This includes a fixed setup cost of $5,174 to initiate the program and a yearly variable cost of $58,933 that covers the cost of the program director, staff and coaches. Since 442 students are affected by the program each year, this yields a $145.04 total cost per student. The main academic outcome affected is first-year student dropout; we find an 8.6 pp decrease in first year dropout rates. This indicates that the cost of inducing an additional student to remain at the university following the first year is $145.04/0.087 = $1,667. Repeating this exercise for the imprecisely estimated 6-year graduation outcome, we get a CEI of $3,626 ($145.04/0.04).

Importantly, our program is substantially more cost effective than other successful college coaching programs. For example, Bettinger and Baker (2014) study the "InsideTrack" college program, a coaching program aimed at non-traditional students. The total cost of the program is $1,000 per year per student. They show it increases students' first year persistence by 5.2 pp, second year persistence by 3.4 pp and graduation, for a subsample of students, by 4 pp. Thus, inducing a single student to persist at the university after the first year costs $19,230. These costs are higher for 2-year persistence ($29,411) and graduation ($25,000). Additionally, Barr and Castleman (2018) analyze the "Bottom Line" advising program that begins in high school and continues throughout college. They find a 5 pp increase in college graduation. The program costs $4,000 per student resulting in a cost per additional degree completed of $80,000. Our program's cost effectiveness is closest to the high school coaching program analyzed in Carrell and Sacerdote (2017) who find that inducing an additional high school student into college costs $2,400.

5.2 Heterogeneity Analysis

It is possible certain groups are more likely to be affected by a coaching program. To investigate this, we estimate Equation (1) separately by gender, field of study and socioeconomic status. We begin by comparing effects across gender. While we can not reject that the

point estimates for the various outcomes are the same for men and women, comparing rows 1 and 2 reveals that the baseline effects presented in Table 2 are largely concentrated among men. Not only do they experience reduced Q3 dropout, the program produces large and statistically significant effects on men's academic performance in the remainder of the first year. Q2 + Q3 GPA improves by 31.2% (column 4) and Q2 + Q3 earned credits increases by 1.3. These estimates are larger and more statistically significant than for women.

At this university and most, STEM degrees tend to have relatively higher dropout rates. Often interventions such as mentoring, advising and coaching are proposed as ways to combat STEM attrition. Our analysis, indeed, supports this hypothesis as we find large effects of the program for STEM majors. FYSP decreases first-year dropout for STEM majors by a substantial 12.5 pp (column 3) and improves Q2 + Q3 GPA by 25.2% (column 4). Typically, heterogeneity analyses by major suffer from student sorting that is related to the treatment, but in this setting major can be viewed as a predetermined characteristic much like high school GPA. At this university, students apply and are admitted to a specific college and major—e.g., an Electrical Engineering major in the College of Engineering—and switching colleges and majors is quite difficult, particularly in the fist year.

The final two rows of Table 3 (rows 5 and 6) explore effects by a students' socioeconomic background. "Lower SES" takes the value of 1 if a student is eligible for federal financial aid, and 0 otherwise. "Higher SES" is the compliment.[19] We find that our documented baseline effects are driven by students from lower income backgrounds—i.e. those who ex-ante may be more likely to benefit from advising or coaching. Students from lower SES backgrounds who are marginally exposed to coaching are 12.4 pp less likely to dropout after first year and are 13.6 to 16.6 pp more likely to graduate within six years, depending on the bandwidth. In line with the 6-year graduation findings, these students also experience large improvements in their Q2 + Q3 GPA and total credits earned in Q2 + Q3. Overall, the heterogeneity analysis reveals coaching for students on the margin of the 2.0 GPA threshold has substantial impact for men, STEM majors and those who come from lower income backgrounds.

6 Validity of the Research Design

6.1 Required Assumptions

Standard RD Assumption (A1). The identifying assumption required for a valid RD design is that individuals are not able to manipulate the running variable. If individuals can

[19] In the administrative files, students with an observed value for EFC are eligible for federal aid and those without are ineligible.

influence which side of the cutoff they are on, it will call into question the causal interpretation of the point estimates as it will be difficult to distinguish between student sorting and the true effect of the intervention. In our setting, this could occur if instructors or students strategically manipulate grades in such a manner that the distribution of observable and/or unobservable characteristics of students are discontinuous at the 2.0 GPA cutoff. Although this is a fundamentally untestable assumption, we provide several indirect tests that support its plausibility.

First, it is unlikely that instructors are able to strategically manipulate a student's entire quarter GPA, since they are generally responsible for only one of three or four course grades. Second, we check for manipulation around the 2.0 threshold by plotting the distribution of student GPAs for all cohorts, presented in Figure A3a. While there are two large density spikes at the GPA cutoffs of 2.0 and 3.0, these heaping patterns are similar across treatment (FYSP-eligible cohorts) and control cohorts (pre-FYSP cohorts), as shown in Figure A3b and Figure A3c. Since overall GPA patterns did not change with the implementation of FYSP, any heaping will be differenced out with the DiRD research design, mitigating concerns that heaping is biasing the DiRD estimate.

More generally, heaping at round GPA points is not necessarily indicative of manipulation. It is possible that discontinuities in the GPA distribution are linked to other exogenous factors such as grade rounding. Natural, non-strategic, institutional grade bumps are common in many U.S. institutions and have been documented in GPA based RD settings such as Zimmerman (2014) and Ost et al. (2018). To further alleviate concerns over grade heaping, Figure A3 presents results from a Donut DiRD design which involves dropping the heaping points at the 2.0 and 3.0 GPA cutoff following Barreca et al. (2016). The main findings are robust to this alternative approach.

Finally, we examine whether observable student characteristics evolve similarly around the 2.0 GPA threshold. If individuals are unable to manipulate the side of the threshold they fall on, we should observe no differences in predetermined characterizes across the cutoff. To implement this, we estimate a series of balance tests using Equation (1). Indeed, for the three different bandwidth windows of 0.5, 0.75 and 1 GPA points on either side of the cutoff, we find no evidence of differences in discontinuities for any of the nine observable predetermined student characteristics. Results are reported in Table 4. To summarize these effects, we construct predicted dropout and predicted first-year GPA outcomes for each student based on these nine baseline covariate and estimate our main specification. If no GPA manipulation is present, the estimates should not be statistically different from zero. The DiRD treatment estimates for these predicted outcomes are presented in Table B1 and, in fact, are statistically insignificant at the cutoff. In summary, the fact that observable

student characteristics appear to be smooth across the threshold, further alleviates concerns over GPA manipulation. Altogether, the findings from these empirical tests indicate that the DiRD design should purge our estimates of any such unobservable bias—assuming the unobservable differences are also constant across cohorts.

Confounding Policy is constant over time (A2). For the DiRD estimate to be valid, it is also necessary that the effect of the confounding policy (academic probation) has the same effect before and after the introduction of the policy of interest (FYSP). Notably, the probation policy did not change over the sample period.[20] One way to empirically assess the plausibility of this assumption is to analyze how the effect of probation evolves over time. If the effect is similar across the different control cohorts (i.e., no preexisting trends), then it suggests that the effect of probation is constant over time. To test for this, we separately estimate the RD coefficient for each cohort for the two main outcomes: Q3 dropout and Q2 + Q3 standardized GPA. We focus on these outcomes as this is where we document significant FYSP impacts. All estimates relay on a bandwidth of 1 GPA point, with the treatment defined as scoring below a 2.0 GPA.

To most easily assess the dynamics of the effect of probation and in the spirit of an event study design, Figure 3 plots these RD estimates by cohort. Robust standard errors are reported in bars. The first three estimates, those displayed before the dashed vertical line, are probation effects for students enrolled in our two control cohorts (2007, 2008) and the two colleges that were not exposed to the pilot program in 2009. All estimates after the dashed line represent probation effects for the treated cohorts; those exposed to both policies, i.e. the four pilot colleges in 2009 and the 2010 to 2017 cohorts.

For both outcomes, the effect of probation is quite similar over time as evident among the control cohorts. In Figure 3a, the first three estimates show positive and mostly significant effects on dropout rates for students just eligible for probation, and these probation effects are similar across the three control cohorts. Then once FYSP is introduced, the positive dropout effects dissipate suggesting that FYSP likely has a moderating effect on probation. Figure 3b displays a similar pattern. Q2 + Q3 standardized GPA is unaffected for the three control cohorts while the cohorts that are exposed to probation and FYSP are positively affected. Importantly, the "pre-trend" patterns in both figures seem to indicate that probation had a similar effect on outcomes regardless of cohort.

Perhaps most compelling, is comparing the two different RD estimates from 2009 (2009-1

[20] We verified that the Academic Probation policy did not change by consulting the student Handbook in each year. We also spoke with administrators from the University's retention office who further confirmed this information.

and 2009-2). Here the year is held constant, but two colleges were exposed only to probation while the other four were exposed to both probation and FYSP. It is unlikely that the probation policy would differ within the same year. As such, it is reasonable to interpret the difference in the two 2009 estimates as the impact of FYSP. Overall, the weight of the evidence suggests that the confounding probation policy had the same effects before and after the introduction of FYSP.

LATEs are additively separable (A3). A third assumption is that the two LATEs estimated are additively separable. In other words, A3 will hold if in expectation the effect of the treatment does not interact with the confounding policy. An intuitive way to assess this assumption in our setting is to ask: would the coaching program generate the same LATE if it was mandatory for students around the 2.0 cutoff but for whom were not also on probation? Unfortunately, we cannot test this empirically as we do not observe FYSP participation absent of probation. Consequently, we cannot rule out that our estimated effects rely on probation status. In fact, it is plausible that students who just qualify for probation are primed and are thus quite responsive to FYSP, relative to those barely on the other side of the 2.0 cutoff. This targeted nature of the program could explain why it is so effective at changing student behavior compared to other similar interventions studied in this literature. On the other hand, it is also possible the program would produce similar results for students just above the 2.0; those not subject to probation. If the latter is true and A3 holds, our DiRD captures the effect of coaching. Alternatively, if the former is true our estimates can be viewed as capturing the impacts of coaching in the presence or threat of probation.

6.2 Robustness Checks

As shown in Section 6.1, we observe grade bunching at the 2.0 GPA cutoff. This bunching or heaping pattern is similar and observable for both the control (Figure A3b) and treated cohorts (Figure A3c) suggesting that this was the result of natural institutional student GPA rounding as observed in Zimmerman (2014) and Ost et al. (2018). Moreover, because heaping seems to have an almost identical pattern for the treated and control cohorts, the DiRD identification strategy will difference out any potential effects related to heaping. To further alleviate concerns involving grade bunching, we implement our main DiRD analysis dropping the heaping point at the 2.0 cutoff. Table B3 summarizes findings from this exercise. We find similar and robust results to those reported in Table 2 for all outcomes of interest. As such, the heaping observed in our data is most likely non-strategic and due to natural

grade rounding, as observed in previous studies.

Finally, it is conventional with a RD design to utilize a data driven approach for bandwidth selection. These approaches, however, are not well suited for a DiRD design. Instead, we report the DiRD estimate for our main outcomes of interest across a range of bandwidths. Indeed, Figure A2 shows the results are robust to various bandwidths.

7 Labor Market Analysis

To estimate the impact of the coaching program on labor market outcomes, we link the student-level education files to administrative data from the CA Employment Development Department (EDD). Specifically, we combine two data sources maintained by EDD used to administer the UI program in CA: quarterly earnings records, and the Quarterly Census of Employment and Wages (QCEW).

The quarterly earnings records include total earnings in the relevant quarter for each employer-employee (firm) pair. The QCEW data contain earnings and employment at the establishment-quarter level, which we aggregate to the firm level (summing across establishments in CA) before linking to the earnings data. Both datasets include the universe of UI-covered employment in the state for the years 2000-2019.[21,22] As such, we will not observe labor market outcomes for the small share of students who are employed outside the state of California or for the Federal government.[23]

The labor market data are linked to the education files at the student-level via SSNs.[24] The linked data allow us to construct several labor market outcomes of interest for each student-quarter: log of total earnings (intensive margin), the average wage at the firm, an indicator for employment (extensive margin), and the cumulative quarters of experience since entering the university. We use the CPI for All Urban Consumers to adjust dollar amounts to 2019.

To ensure that earnings are measured at similar ages for treated and control cohorts, we limit the data to quarters 25-40 (6-9 years) after initial enrollment (where quarter 1 is the fall quarter of the student's first year).[25] Since the typical student is 18 at enrollment,

[21] As per Gurantz (2019), the EDD has estimated that 92% of employed Californians are included in the data.

[22] While more recent data is available, we exclude observations in 2020 due to Covid-19, since only treated cohorts are exposed to this shock in the relevant age range.

[23] A subset of these data have been used in a series of policy briefs on UI in CA during the pandemic (Bell et al., 2020). Similar and/or related data has also been used in other post-secondary education contexts (e.g., Bleemer and Mehta, 2020; Gurantz, 2019; Hoekstra, 2009; Ost et al., 2018; Zimmerman, 2014).

[24] Of the 45,864 students in our main sample, 43,081 (94%) were employed in at least one quarter following entry to the university.

[25] In Table B5 we limit the sample to cohorts that enrolled in 2011 or earlier. Since the earnings data end

this corresponds roughly to ages 24-27. The final dataset used in our labor market analyses includes 127,626 student-quarters that meet these criteria and have GPAs within 1 point of the 2.0 cutoff. Summary statistics for the analysis sample are reported in Table B4. The average quarterly earnings is $10,857 (approximately $43,428 annually) and 72% are employed.

The program has the potential to affect student's earnings in their mid 20s in several ways. Suppose earnings is increasing in education and experience. First, the program may increase education. Indeed we find it increases the likelihood of obtaining a bachelors degree for certain groups. On the other hand, the program likely reduces experience as remaining in school delays entering the labor force, especially relative to the control group who may have dropped out and started working right away. As these two channels are countervailing, the effect of the program on earnings ex ante is unclear.

We estimate a variant of Equation (1) but at the student-quarter level. We report DiRD estimates in Table 5. Standard errors are cluster-robust at the student level and each student-quarter is weighted by the inverse of the number of quarters the student is present in the sample. The top panel of Table 5 shows that for the full sample the coaching program does not appear to produce significant labor market effects. There is suggestive evidence that treated students experience higher earnings—the program leads to a 12% earnings gain (column) –and work for firms with slightly higher average pay (column 2), but the estimates do not attain statistical significance at a conventional level. These results are broadly similar if we restrict to cohorts entering in or before 2011, see Table B5.[26] Columns 3 and 4 assess the degree to which the program impacts employment and work experience. If students are in school longer, they likely have less experience. Indeed, we find imprecisely measured negative effects of the program on employment status and cumulative quarters of experience. These results are inline with the predictions outlined above.

To better understand the potential labor market effects of the program, we separately estimate the effect of the program for various subgroups. The bottom panel of Table 5 reports DiRD estimates separately for women, men, STEM and non-STEM majors and those from lower and higher income families. If the program has a meaningful impact on labor market outcomes, we would expect to observe stronger effects for students whose academic outcomes are most affected: men, STEM majors and those from lower income families. Indeed, we find

in 2019 Q4, this ensures that all students are observed in each year of interest—a student enrolling in 2011 Q3 begins their 6th year relative to entry in 2019 Q3 (37 quarters after enrollment).

[26]This cohort restriction creates a balanced panel across treatment and control groups but reduces the sample size. (Control cohorts are always observed in each year 6-9 relative to entry, while treatment cohorts entering after 2011 are observed in only some of these years—e.g., the 2012 cohort is observed in years 6-8 only.)

labor market effects concentrated among the marginal students in these groups. The program increases earnings for men and lower-SES students in years 6-9 after entry by 27-30% (column 1). We also observe similarly positive but less precisely estimated effects on earnings among STEM majors. In line with the earnings results, albeit imprecisely estimated, for these same subgroups treated students are employed by firms with slightly higher average pay (column 2).[27]. Columns 3 and 4, by and large show noisy, small negative effects of the program on employment probability and cumulative quarters of experience.

In summary, the findings constitute *suggestive* evidence that the coaching program has positive impacts on earnings for certain groups of students 6-9 years following entry to the University, roughly corresponding to ages 24-27. These results are concentrated among those subgroups that experienced the largest effects on academic outcomes—STEM majors, male students, and lower-SES students. There are some limitations to this analysis. Given the relatively short follow-up period (6-9 years from entry), we are unable to assess the impact of the program on earnings at ages 30-35, a time when wages are more indicative of ones career trajectory. Wages observed in ones mid-twenties tend to be less reliable as some students are still completing their bachelors degree or pursing graduate studies. Moreover, the point estimates are somewhat imprecisely measured likely due to sample size. The short follow-up period combined with the subsampling required for the heterogeneity analysis, results in fewer observations relative to the main analysis. However, although imprecise, these results are useful for getting a better idea of the full benefits of coaching given the dearth of evidence on the effects of coaching or mentoring interventions on labor market outcomes.

8 Mechanisms

Many students face academic difficulties during their first year of college. Indeed, they may struggle with more demanding course work, more autonomy, often less-than-ideal living situations while simultaneously trying to find a supportive community in a new environment. The FYSP coaching program includes a bundle of treatments targeted to an at-risk group at a critical time and that could remedy some of these issues. Our results indicate that FYSP improves students' academic performance, retention and graduation rates. We also provide suggestive evidence that the intervention improves labor market outcomes for some groups. The program combines several elements—information, goal-setting, time management, coaching and a nudge—which all have the potential to individually boost students' academic success. Though it is difficult to conclusively identify which of the program's components are driving the documented improvements in student outcomes, in this section we

[27]Results are similar if we restrict to cohorts in or before 2011, shown in the bottom panel of Table B5

explore ways in which the program may have changed students' behavior.

We utilize data from surveys conducted by the university's First Year Success Program Office. The surveys were administered to all FYSP participants pre- and post-program completion for eight cohorts of students: those qualifying in the Fall quarters 2013 and 2015-2018 and those qualifying in the Winter quarters 2017-2019.[28] All surveys were administered through the online platform SurveyMonkey and are included in Appendix D. Given the structure of the data, this exercise is more descriptive in nature as the analysis relies on within student comparisons of outcomes before and after FYSP participation. As such, we estimate the following model:

$$Y_{it} = \beta_1 + \beta_2 Post_t + \delta_i + \epsilon_{it} \tag{2}$$

where Y_{it} is the outcome for individual i in period t, $Post_t$ takes the value 1 to indicate the post-program period and zero otherwise, and δ_i is an individual fixed effect. All standard errors are clustered at the individual level.

Results from this analysis are reported in Table 6. In columns 1 to 5, we focus on outcomes addressing students' knowledge of academic resources, time management, class attendance, feelings of connectedness and academic motivation. Specifically, using the pre- and post-program surveys for students who qualified for FYSP in Fall 2013 (434 observations), we construct five binary outcomes: (i) Resources is a dummy variable that is equal to one if a student reports that they are familiar with the university's student services and how to use them and 0 otherwise, (ii) Time Management is equal 1 if a student indicates that they manage their time well and 0 otherwise, (iii) Attend Class is equal to one if a student reports regularly attending classes and 0 otherwise, (iv) Connected is equal to 1 if a student reports feeling connected to a community at the university and 0 otherwise and (v) Motivated is equal to 1 if a student reports they are motivated to focus on school and 0 otherwise.

Results in Table 6 reveal that FYSP changes students' behavior in meaningful ways. We find that it significantly increases their awareness and possibly take-up of various student resources offered by the university (column 1).[29] Column 2 further indicates that the program improves students' time management skills, but we detect no significant changes in their self-reported class attendance (column 3), self-reported level of connectedness to the university

[28]FYSP was first implemented university-wide in Fall 2010 (though, there was a pilot in Fall 2009 for a subset of faculties) and has been in operation each fall since. For a subset of years, the university also operated a second program in the year for students qualifying in the winter quarter (Winter quarters 2014, 2015 and 2017-2019). While we do not use Winter quarter participation in our main analysis, we do use survey responses from these cohorts of students in the mechanism analysis.

[29]These include faculty office hours, on-campus tutoring services, the writing center, student clubs, the recreation center, counseling services, the health center, the disability resource center, and diversity and inclusion services.

(column 4) or their self-reported level of motivation (column 5).

We further use pre- and post-survey responses for students qualifying for FYSP in the Fall 2015-2018 and Winter 2017-2019 quarters (1,882 observations) to explore whether program participation affects students' feelings of isolation and faculty support. Using these data, we construct two additional binary outcomes defined as follows: (i) Not Alone is a dummy variable equal to 1 if a student reports feeling that they are not the only one on academic probation at the university, and 0 otherwise and, (ii) Faculty Cares takes the value of 1 if the student can identify a staff or faculty member at the university who cares about their success and equals 0 if they are still looking for such support. Columns 6 and 7 of Table 6 show that FYSP reduces participants' feeling that they are the only ones at the university who experienced academic difficulties in the previous quarter and improves their ability to identify a faculty or staff member who they feel cares about their academic success.

Drawing on these empirical results and given the focus of the program, we posit that FYSP boosts participants' academic success through two main channels: improved study skills and socio-emotional state. First, it provides them with tangible study skills. This is evidenced by the fact that it increases their knowledge and access to support services such as professor's office hours, tutoring and counseling services, and improves their self-reported time management skills. These improvements are in line with key components of the program as the program has students identify services that will help them overcome their academic challenges. In fact, many participants attend one of these services in the follow-up assignment. The program also requires students to fill in a weekly schedule including classes, study time and social events as a way to manage their time. Second, we posit that the program changes academic outcomes through improvements in a student's socio-emotional state. Students placed on academic probation may feel isolated, anxious about their future, and as though they have failed. A central part of the program is normalizing failure and, indeed, we find support that the program achieves this. Students report feeling less alone in their struggles and are more likely to feel supported by university staff and faculty. We speculated that this is largely due to the group aspect of the program; unlike most interventions studied in this literature where coaching is conducted one-one-one.

9 Discussion and Conclusion

In an effort to boost college graduation rates, policymakers often propose providing students with coaching or mentoring. However, evidence on the success of these programs is mixed. This paper evaluates the effectiveness of a mandatory coaching program targeting students who are placed on academic probation during their first year at a four-year US

institution. Program participants attend a workshop in which they are provided with group coaching focused on normalizing failure, and improving goal-setting and time management skills. A few weeks later, students are required to meet one-on-one with their coach or use an academic support service.

We find that the coaching program largely boosts targeted students' academic outcomes. Overall, program participants see substantial improvements in their academic performance and dropout rates. Effects are concentrated among low-income students who also experience an increase in their six-year graduation rate. Further heterogeneity analyses reveal that effects are also concentrated among men and students enrolled in STEM majors. For the most affected groups, we find suggestive evidence that the program increases earnings 6-9 years following a student's first quarter at the university.

Our findings indicate that a relatively lighter-touch, short-term but targeted coaching program can be an effective way to increase marginal students' college retention. What perhaps contributes most to the program's success is that it is targeted to students on the margin of dropping out and it is conducted in a group setting. The program's structure may have allowed struggling students to develop a bond with their coaches and peers facing similar difficulties. Indeed, by the end of the program, participants report feeling more supported by faculty or staff and less likely to feel that they are the only ones struggling.

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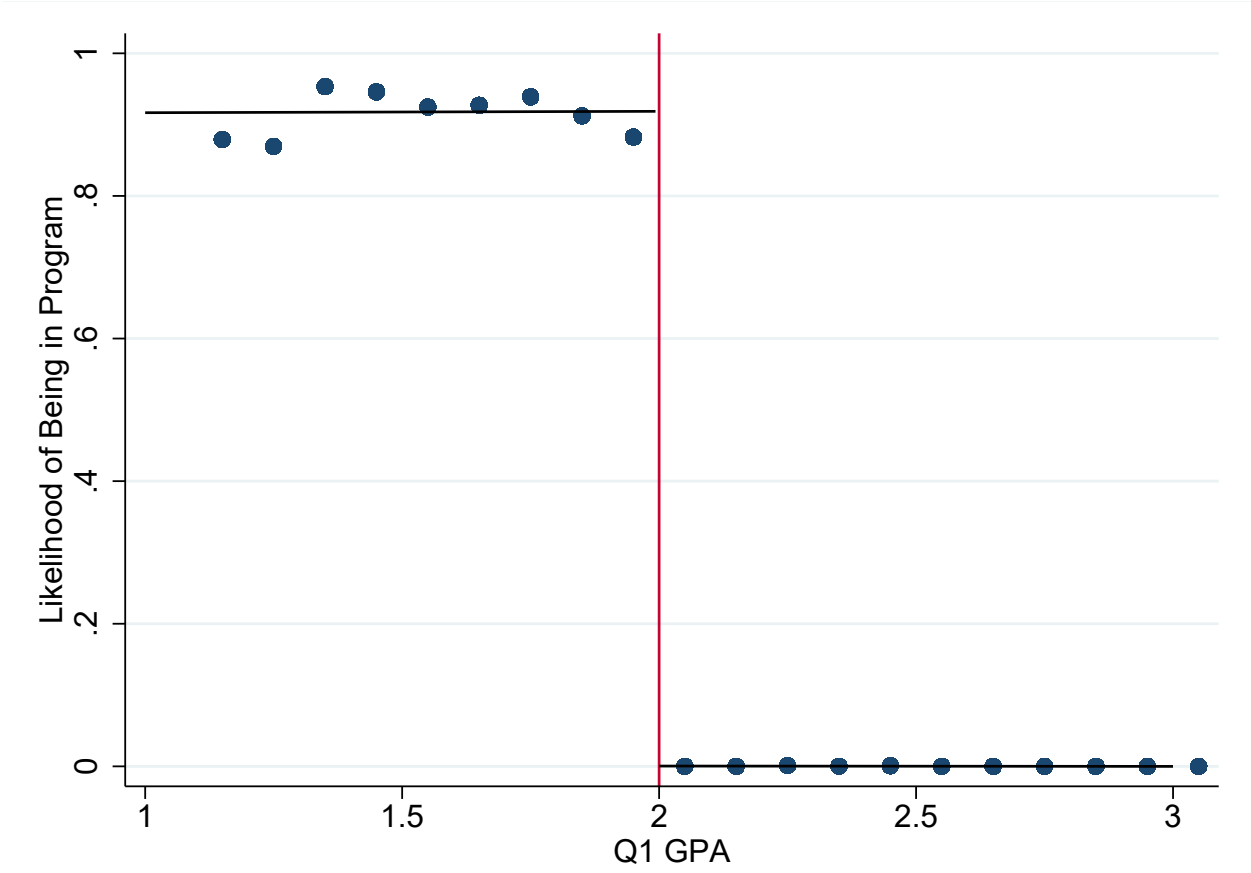
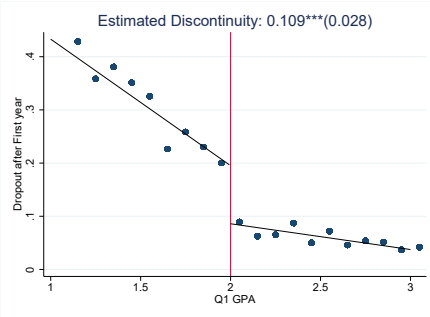
Figure 1: First Stage: Likelihood of Being in Coaching Program

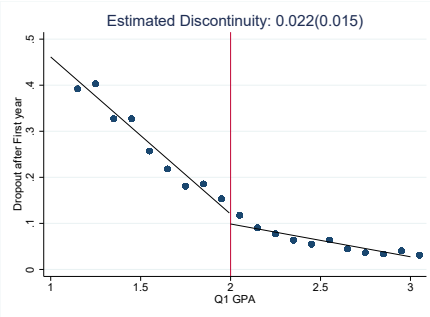


Notes: This sample is based on students enrolled at the university after the implementation of FYSP: entering Fall cohorts 2010-2017.

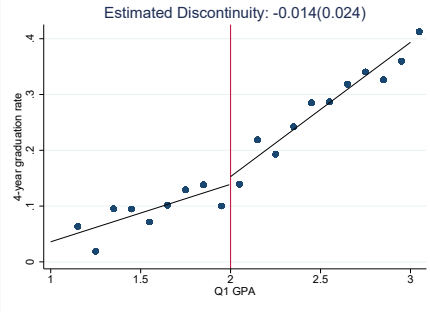
Figure 2: RD Figures for Academic Outcomes by Control and Treated Cohorts



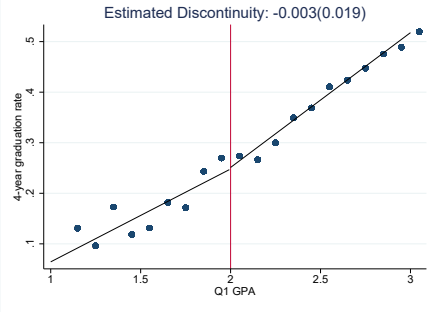
(a) Dropout after first year (Control cohorts)



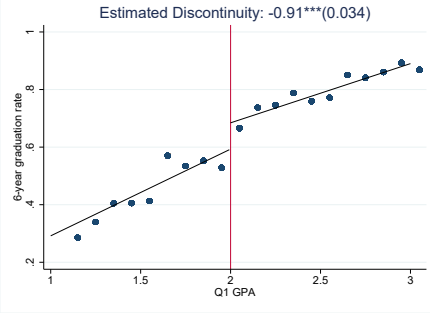
(b) Dropout after first year (Treatment cohorts)



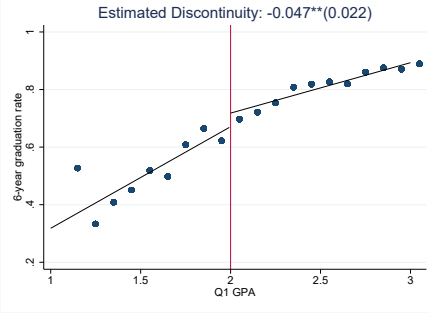
(c) 4-year Graduation (Control cohorts)



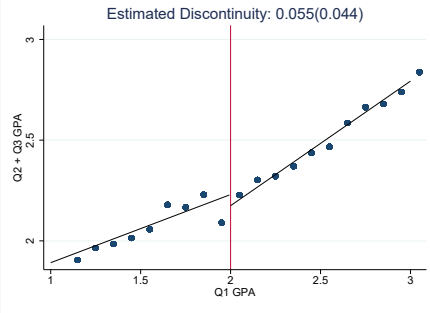
(d) 4-year Graduation(Treatment cohorts)



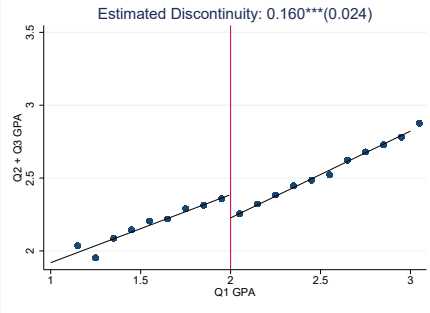
(e) 6-year Graduation (Control cohorts)



(f) 6-year Graduation (Treatment cohorts)



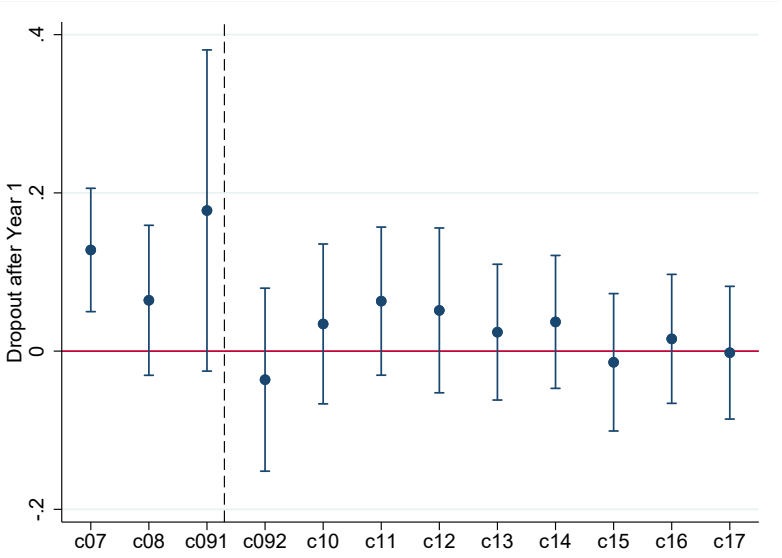
(g) Q2 + Q3 GPA (Control cohorts)



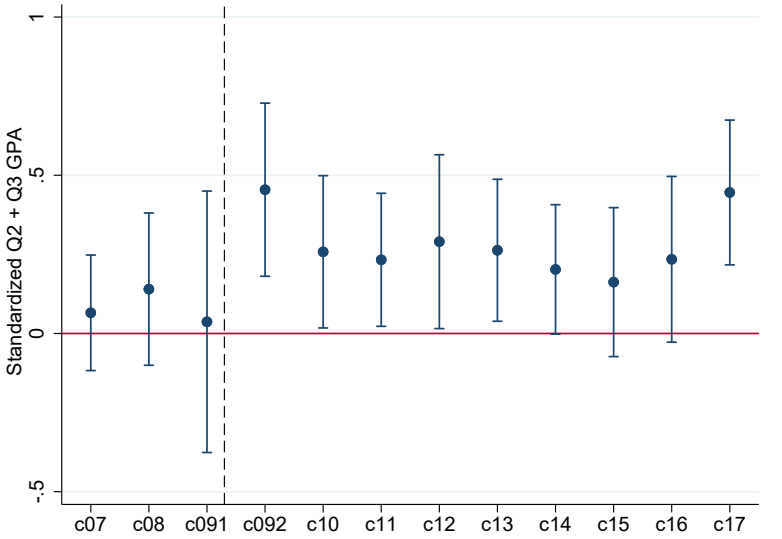
(h) Q2 + Q3 GPA (Treatment cohorts)

Notes: Control cohort figures use the sample of students enrolled at the university in 2007, 2008 and certain faculties in 2009. Treatment cohort figures use sample of students enrolled at the university in certain faculties in 2009 and all faculties from 2010 to 2018 (except for graduation outcomes which are up to 2014 cohorts). Estimates and standard errors (in parentheses) are reported above each figure.

Figure 3: RD Estimates by Cohort



(a) Likelihood of Dropout after 1st Year (Q3)



(b) Standardized Q2 + Q3 GPA

Notes: Figures include all first-year students enrolled at the university in entering fall cohorts 2007-2017. Each point estimate is derived from a separate RD regression—using a bandwidth of 1 GPA point—for each cohort where treatment is defined as scoring below a 2.0 GPA. All point estimates to the left of the dotted line represent control cohorts (First time freshman students enrolled in 2007, 2008 and two colleges in 2009, i.e. prior to the introduction of FYSP). All point estimates to the right of the dotted line represent treated cohorts (First time freshman students enrolled in four colleges in 2009 and the 2010 to 2017 cohorts, i.e. after the introduction of FYSP). Bars represents upper and lower 95% confidence intervals for each point estimate.

Table 1: Summary Statistics

	(1) Full Sample	(2) Bandwidth=1 Q1 GPA$\in [1,3]$	(3) Pre-program yrs. Q1 GPA $\in [1,2)$ Probation	(4) Pre-program yrs. Q1 GPA $\in [2,3)$ No Probation	(5) Program yrs. Q1 GPA $\in [1,2)$ Probation + FYSP	(6) Program yrs. Q1 GPA $\in [2,3)$ Neither
Covariates						
HS GPA	3.84	3.73	3.50	3.66	3.61	3.77
	[0.45]	[0.44]	[0.38]	[0.41]	[0.47]	[0.44]
Female	0.48	0.44	0.30	0.45	0.37	0.45
	[0.50]	[0.50]	[0.46]	[0.50]	[0.48]	[0.50]
Non-White	0.38	0.42	0.47	0.35	0.50	0.43
	[0.49]	[0.49]	[0.50]	[0.48]	[0.50]	[0.49]
Remedial Math	0.02	0.03	0.05	0.05	0.04	0.02
	[0.14]	[0.17]	[0.22]	[0.22]	[0.19]	[0.15]
Remedial English	0.04	0.07	0.18	0.12	0.09	0.04
	[0.21]	[0.25]	[0.39]	[0.33]	[0.28]	[0.20]
Pell Grant Eligible	0.16	0.19	0.21	0.14	0.26	0.19
	[0.37]	[0.39]	[0.41]	[0.34]	[0.44]	[0.39]
EFC Missing	0.59	0.57	0.57	0.66	0.50	0.55
	[0.49]	[0.50]	[0.50]	[0.47]	[0.50]	[0.50]
Father College +	0.80	0.77	0.70	0.80	0.71	0.77
	[0.40]	[0.42]	[0.46]	[0.40]	[0.45]	[0.42]
Mother College +	0.83	0.80	0.74	0.81	0.74	0.80
	[0.38]	[0.40]	[0.44]	[0.39]	[0.44]	[0.40]
Obs.	45,864	22,225	920	3,374	2,430	13,811
Outcomes						
Dropout Q1	0.01	0.01	0.04	0.01	0.03	0.01
	[0.10]	[0.11]	[0.20]	[0.09]	[0.18]	[0.10]
Dropout Q2	0.02	0.02	0.07	0.02	0.08	0.02
	[0.14]	[0.16]	[0.25]	[0.13]	[0.27]	[0.13]
Dropout Year 1	0.06	0.09	0.30	0.06	0.25	0.06
	[0.24]	[0.28]	[0.46]	[0.24]	[0.43]	[0.23]
Obs.	45,864	22,225	920	3,374	2,430	13,811
4-Yr Grad Rate	0.44	0.35	0.09	0.28	0.18	0.40
	[0.50]	[0.48]	[0.29]	[0.45]	[0.38]	[0.49]
Obs.	36,523	18,281	920	3,374	1,940	10,664
6-Yr Grad Rate	0.83	0.77	0.46	0.80	0.54	0.82
	[0.37]	[0.42]	[0.50]	[0.40]	[0.50]	[0.38]
Obs.	34,438	17,149	920	3,374	1,725	9,817
Q2 + Q3 GPA	2.87	2.53	2.09	2.51	2.21	2.57
	[0.64]	[0.57]	[0.63]	[0.55]	[0.61]	[0.53]
Obs.	44,523	21,421	842	3,289	2,178	13,447
Q2 + Q3 Total Credits	27.77	26.20	21.90	26.27	22.68	26.84
	[5.97]	[6.22]	[7.86]	[5.50]	[8.00]	[5.68]
Obs.	45,864	22,225	920	3,374	2,430	13,811
Treatment						
Probation Ever*	0.38	0.57	1.00	0.53	0.99	0.43
	[0.48]	[0.50]	[0.05]	[0.50]	[0.08]	[0.50]
Probation Yr 1*	0.25	0.41	1.00	0.31	0.99	0.28
	[0.43]	[0.49]	[0.06]	[0.46]	[0.09]	[0.45]
Probation Q1*	0.11	0.17	0.99	–	0.98	–
	[0.31]	[0.38]	[0.09]		[0.12]	
Obs.	45,864	22,225	920	3,374	2,430	13,811
FYSP Participant Fall**	0.06	0.12	–	–	0.84	–
	[0.24]	[0.32]			[0.37]	
Obs.	37,244	17,597			2,430	

Notes: The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Standard deviations are in brackets. *The summary statistics reported for the three probation variables (Probation Ever, Probation Yr 1 and Probation Q1) are based only on the 2007-2009 and 2017 entering fall cohorts. The probation variable was not available for the other years. **The reported means for the FYSP Participant Fall variable are based only on the program years (entering cohorts 2010-2017 and the subset of faculties that participated in the pilot in 2009) as this variable is undefined for the other years.

Table 2: DiRD Estimates for Academic Outcomes

	(1) Dropout Q1	(2) Dropout Q2	(3) Dropout Q3	(4) GPA (Q2 + Q3)	(5) Earned Credits (Q2 + Q3)	(6) Grad. 4 yr.	(7) Grad. 6 yr.
Bandwidth= 0.75	-0.011	0.000	-0.073**	0.168*	1.305*	0.022	0.078
	(0.016)	(0.021)	(0.037)	(0.089)	(0.682)	(0.036)	(0.048)
With Controls	-0.011	0.000	-0.070*	0.171**	1.288*	0.015	0.073
	(0.016)	(0.021)	(0.037)	(0.087)	(0.681)	(0.035)	(0.047)
Observations	14,407	14,407	14,407	13,821	14,407	11,895	11,109
Bandwidth= 1	-0.008	0.001	-0.088***	0.165**	1.241**	0.011	0.044
	(0.014)	(0.018)	(0.032)	(0.076)	(0.589)	(0.031)	(0.041)
With Controls	-0.008	0.001	-0.086***	0.164**	1.199**	-0.000	0.040
	(0.014)	(0.018)	(0.032)	(0.074)	(0.586)	(0.030)	(0.040)
Observations	22,225	22,225	22,225	21,421	22,225	18,281	17,149

The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Controls include cohort fixed effects, high school GPA, gender, non-white, resident of CA, math and English remedial status, Pell Grant eligibility status, whether EFC scores are missing and indicators for whether parents attended college. Each point estimate is from a separate regression. Robust standard errors in parentheses. DiRD results are equivalent to differencing two local linear RD regressions.

Table 3: DiRD Estimates for Academic Outcomes by Gender, Field of Study and SES

	(1) Dropout Q1	(2) Dropout Q2	(3) Dropout Q3	(4) GPA (Q2 + Q3)	(5) Earned Credits (Q2 + Q3)	(6) Grad. 4 yr.	(7) Grad. 6 yr.
Female	-0.020	0.002	-0.078	-0.119	0.857	0.022	0.037
	(0.025)	(0.031)	(0.052)	(0.126)	(1.036)	(0.062)	(0.067)
Male	-0.001	0.001	-0.084**	0.312***	1.328*	-0.010	0.029
	(0.016)	(0.022)	(0.041)	(0.093)	(0.716)	(0.032)	(0.051)
STEM	-0.003	0.010	-0.125***	0.252**	0.977	-0.009	0.030
	(0.018)	(0.024)	(0.043)	(0.098)	(0.757)	(0.033)	(0.055)
Non-STEM	-0.018	-0.016	-0.021	-0.008	1.431	0.011	0.026
	(0.022)	(0.027)	(0.045)	(0.113)	(0.953)	(0.054)	(0.061)
Lower SES	-0.013	-0.014	-0.124**	0.209*	1.926**	-0.060	0.136**
	(0.020)	(0.026)	(0.050)	(0.116)	(0.883)	(0.045)	(0.061)
Higher SES	-0.005	0.012	-0.058	0.126	0.555	0.049	-0.022
	(0.019)	(0.025)	(0.042)	(0.098)	(0.793)	(0.040)	(0.053)
Obs. (Female)	9,798	9,798	9,798	9,465	9,798	7,926	7,536
Obs. (Male)	12,427	12,427	12,427	11,956	12,427	10,355	9,613
Obs. (STEM)	10,735	10,735	10,735	10,339	10,735	8,971	8,348
Obs. (Non-STEM)	11,490	11,490	11,490	11,082	11,490	9,310	8,801
Obs. (Lower SES)	9,620	9,620	9,620	9,281	9,620	7,856	7,322
Obs. (Higher SES)	12,605	12,605	12,605	12,140	12,605	10,425	9,827

The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Bandwidth equals 1.0. STEM are students in the college of engineering, architecture and sciences. Non-STEM students are those in the college of agriculture, Business and Liberal Arts. All regressions include controls: cohort fixed effects, high school GPA, whether a student is non-white, gender, Math and English remedial status, Pell eligibility status, whether a student as a missing EFC score, and indicators for whether parents attended college. Each point estimate is from a separate regression. Robust standard errors in parentheses.*** p<0.01, ** p<0.05, * p<0.1

Table 4: Baseline Covariates Balance Check for DiRD Research Design

	(1) HS GPA	(2) Female	(3) Non-White	(4) Remedial Math	(5) Remedial English	(6) Pell elig.	(7) EFC Missing	(8) Father college	(9) Mother college
Bandwidth= 0.5	-0.070	-0.010	0.047	-0.006	0.022	-0.002	0.001	0.017	0.028
	(0.045)	(0.051)	(0.056)	(0.027)	(0.041)	(0.046)	(0.057)	(0.052)	(0.049)
Bandwidth= 0.75	-0.030	-0.022	0.029	-0.029	-0.032	-0.044	0.054	0.031	0.019
	(0.037)	(0.043)	(0.047)	(0.022)	(0.034)	(0.038)	(0.047)	(0.043)	(0.041)
Bandwidth= 1	0.005	0.010	0.050	-0.020	-0.008	-0.015	0.021	0.013	-0.028
	(0.032)	(0.037)	(0.040)	(0.018)	(0.029)	(0.033)	(0.040)	(0.037)	(0.035)
Observations (BW=0.5)	8,973	8,973	8,973	8,973	8,973	8,973	8,973	8,973	8,973
Observations (BW=0.75)	14,407	14,407	14,407	14,407	14,407	14,407	14,407	14,407	14,407
Observations (BW=1)	22,225	22,225	22,225	22,225	22,225	22,225	22,225	22,225	22,225

The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Each point estimate is from a separate regression. Robust standard errors in parentheses. DiRD results are equivalent to differencing two local linear RD regressions.

Table 5: Diff-in-RD Employment Results

	(1)	(2)	(3)	(4)
	Log Earnings	Firm Avg Pay	Employed	Cumulative Experience (Qtrs)
All Students	0.120	922	–0.0205	–1.12*
	(0.0939)	(1,563)	(0.0330)	(0.680)
Control Mean	9.07	14,691	0.755	18.1
Observations	113,581	107,724	159,265	159,265
Female Student	–0.145	–2,958	–0.112**	–2.36**
	(0.146)	(2,558)	(0.0533)	(1.05)
Male Student	0.269**	3,509*	0.0239	–0.520
	(0.120)	(1,997)	(0.0420)	(0.875)
STEM student	0.202	2,589	–0.0222	–0.885
	(0.129)	(1,814)	(0.0454)	(0.924)
Non-STEM student	0.00193	–1,036	–0.0148	–1.49
	(0.141)	(2,665)	(0.0498)	(1.02)
Lower SES	0.309**	1,456	0.0202	–0.0737
	(0.152)	(2,112)	(0.0498)	(1.06)
Higher SES	–0.0198	420	–0.0482	–1.79**
	(0.117)	(2,276)	(0.0441)	(0.888)
Ctrl Mean (Female Student)	8.94	13,194	0.746	18.6
Obs. (Female Student)	48,828	46,315	67,630	67,630
Ctrl Mean (Male Student)	9.19	15,880	0.770	17.7
Obs. (Male Student)	64,753	61,409	91,635	91,635
Ctrl Mean (STEM student)	9.27	18,658	0.737	15.4
Obs. (STEM student)	56,131	53,516	80,987	80,987
Ctrl Mean (Non-STEM student)	9.12	14,722	0.775	18.0
Obs. (Non-STEM student)	57,450	54,208	78,278	78,278
Ctrl Mean (Lower SES)	9.02	13,189	0.797	19.6
Obs. (Lower SES)	47,672	44,886	66,811	66,811
Ctrl Mean (Higher SES)	9.11	15,593	0.734	17.3
Obs. (Higher SES)	65,909	62,838	92,454	92,454

Note: Table displays student-quarter level regressions, where the sample is limited to quarters 6-9 years since the student enrolled. The last calendar quarter included in the sample is 2019q4. Standard errors are cluster-robust at the student level, and regressions are weighted by one over the number of quarters in which a given student is present in the regression sample. Dollar amounts have been adjusted to 2019 dollars using the Consumer Price Index for All Urban Consumers. All regressions use a bandwidth of 1.0 grade points on either side of the cutoff. A */**/*** indicates significance at the 10/5/1% levels.

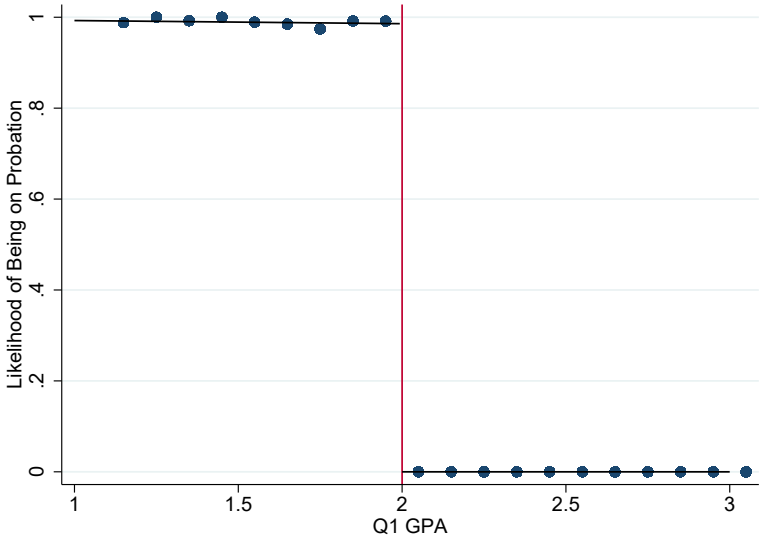
Table 6: Mechanism Exploration

	(1) Resources	(2) Time Management	(3) Attend Class	(4) Connected	(5) Motivated	(6) Not Alone	(7) Faculty Cares
Post	0.753***	0.256***	0.037	-0.005	0.009	0.228***	0.425***
	(0.029)	(0.033)	(0.034)	(0.026)	(0.017)	(0.015)	(0.017)
Obs.	430	430	430	430	430	1,842	1,842
R-squared	0.742	0.219	0.005	0.000	0.001	0.215	0.402
Pre-program mean	0.19	0.65	0.74	0.87	0.95	0.75	0.48

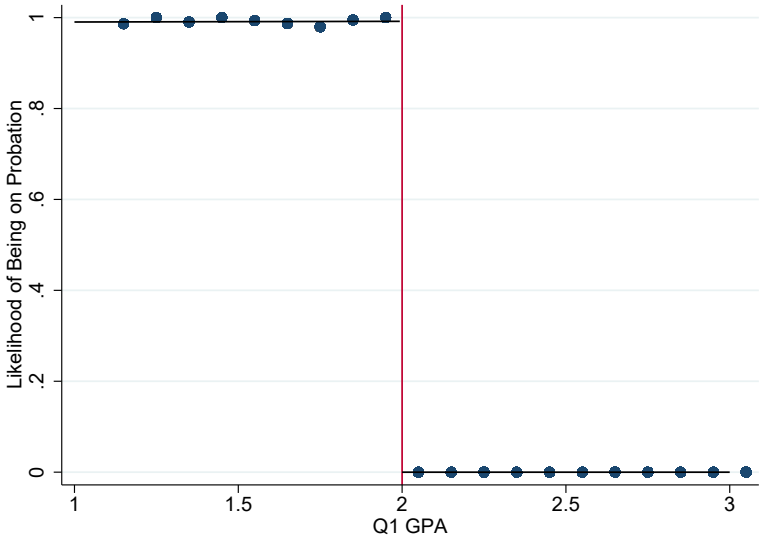
Notes: Data come from FYS pre- and post-program surveys. All regressions include a post program indicator "Post" and individual fixed effects. Columns 1-5 include Fall 2013 participants only because they changed the survey after that year and asked different questions. Columns 6 and 7 include Falls 2015, 2016, 2017 and 2018 and Winters 2017, 2018 and 2019. Standard errors are in parentheses and are clustered at the individual level.*** p<0.01, ** p<0.05, * p<0.1

A Appendix Figures

Figure A1: Likelihood of Probation Following Q1



(a) Pre-program (control) cohorts

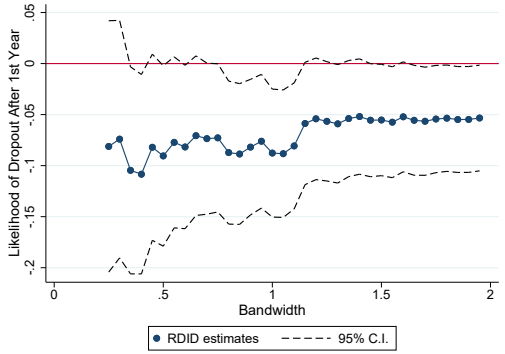


(b) Program (treatment) cohorts

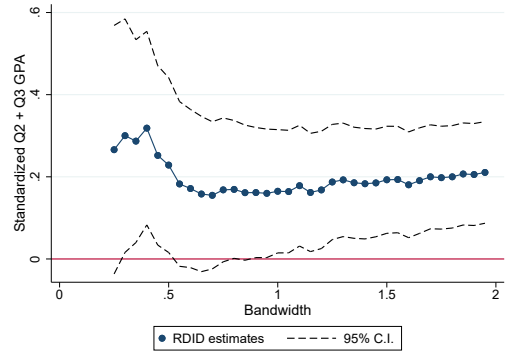
Notes: The sample includes all first-year students enrolled at the university in entering fall cohorts 2007, 2008, 2009 and 2017. 2010-2016 cohorts are excluded because the probation variable is missing. The running variable is first quarter GPA in both figures.

Figure A2: DiRD Estimates for Academic Outcomes by Bandwidth

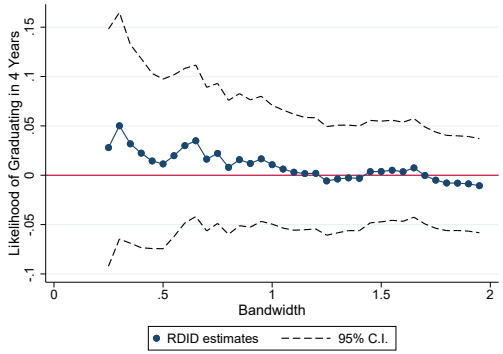
(a) Dropout End of Yr 1



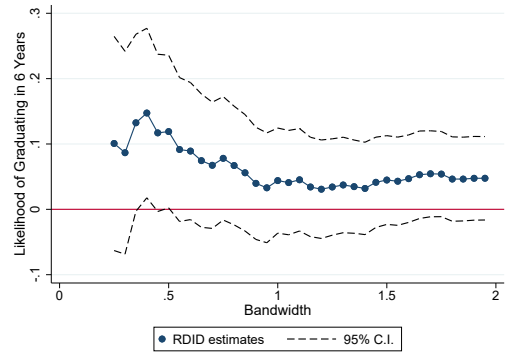
(b) Standardized Q2 + Q3 GPA



(c) Graduate in 4 Years

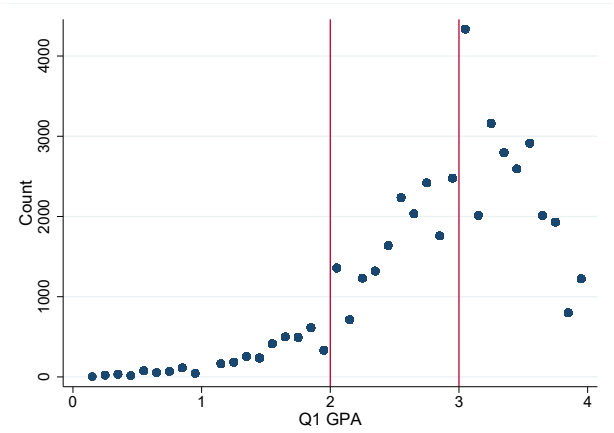


(d) Graduate in 6 Years

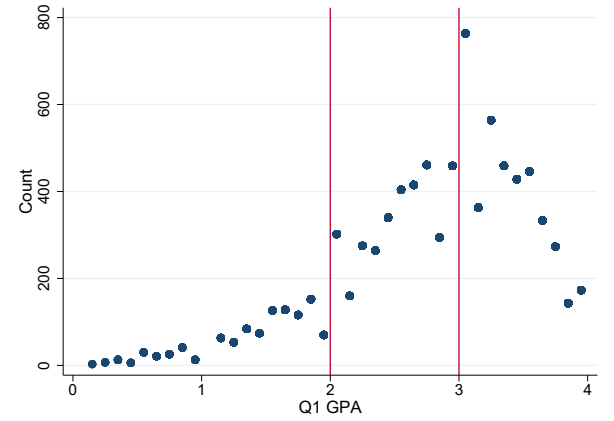


The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Controls include cohort fixed effects, high school GPA, gender, non-white, resident of CA, math and English remedial status, Pell Grant eligibility status, whether EFC scores are missing and indicators for whether parents attended college. Dashed lines represent 95% confidence intervals. DiRD results are equivalent to differencing two local linear RD regressions.

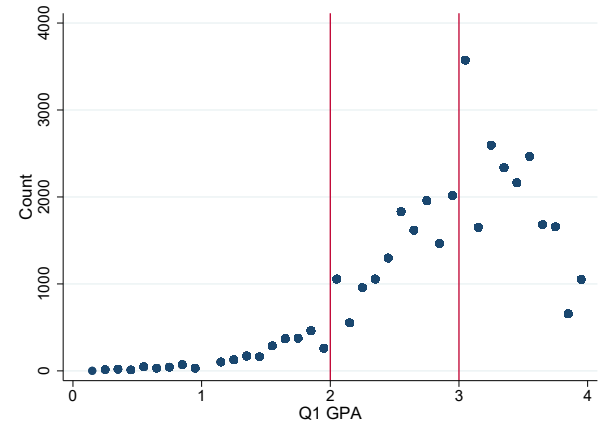
Figure A3: Bunching at Whole GPA Cutoffs



(a) Distribution of Q1 GPA (all cohorts)



(b) Distribution of Q1 GPA (Control cohorts)



(c) Distribution of Q1 GPA (Treatment cohorts)

Notes: Figure 2A sample includes all first-year students entering in fall cohorts 2007-2017. Figure 2B includes cohorts never exposed to FYSP (2007, 2008 and part of 2009 cohort). Figure 2C includes cohorts exposed to FYSP (the 4 colleges of 2009 cohort and 2010-2017 cohorts).

B Appendix Tables

Table B1: Predicted Outcomes Based on Baseline Characteristics (Test of RD Assumption)

	(1) Predicted Dropout	(2) Predicted Q2 + Q3 GPA
DiRD Estimates		
Bandwidth= 0.5	0.004	-0.050
	(0.004)	(0.042)
Bandwidth= 0.75	-0.002	0.004
	(0.003)	(0.035)
Bandwidth= 1	-0.001	0.009
	(0.003)	(0.030)
Observations (BW=0.5)	8,973	8,973
Observations (BW=0.75)	14,407	14,407
Observations (BW=1)	22,225	22,225

The sample includes all freshmen students enrolled at the university from 2007-2008 to 2017-2018. All outcomes predicted based on following controls: cohort fixed effects, high school GPA, whether a student is non-white, gender, Math and English remedial status, Pell eligibility status, whether a student as a missing EFC score, and indicators for whether parents attended college. Each point estimate is from a separate regression. Robust standard errors in parentheses.

Table B2: DiRD Estimates for Academic Outcomes by Gender, Field of Study and SES (Bandwidth 0.75)

	(1) Dropout Q1	(2) Dropout Q2	(3) Dropout Q3	(4) GPA (Q2 + Q3)	(5) Earned Credits (Q2 + Q3)	(6) Grad. 4 yr.	(7) Grad. 6 yr.
Female	-0.012	0.011	-0.080	-0.073	0.874	0.036	0.108
	(0.031)	(0.037)	(0.062)	(0.153)	(1.237)	(0.074)	(0.080)
Male	-0.012	-0.008	-0.062	0.309***	1.582*	0.006	0.055
	(0.018)	(0.025)	(0.047)	(0.107)	(0.827)	(0.038)	(0.060)
STEM	-0.004	0.004	-0.120**	0.305***	1.433	-0.007	0.099
	(0.021)	(0.028)	(0.051)	(0.115)	(0.889)	(0.038)	(0.064)
Non-STEM	-0.028	-0.009	-0.004	-0.080	0.940	0.013	0.010
	(0.024)	(0.031)	(0.050)	(0.130)	(1.083)	(0.063)	(0.070)
Lower SES	-0.013	-0.005	-0.091	0.287**	1.739*	-0.062	0.164**
	(0.025)	(0.031)	(0.058)	(0.135)	(1.041)	(0.053)	(0.073)
Higher SES	-0.010	-0.002	-0.049	0.066	0.912	0.076	0.010
	(0.021)	(0.028)	(0.048)	(0.114)	(0.913)	(0.047)	(0.062)
Obs. (Female)	6,004	6,004	6,004	5,780	6,004	4,893	4,625
Obs. (Male)	8,403	8,403	8,403	8,041	8,403	7,002	6,484
Obs. (STEM)	7,032	7,032	7,032	6,743	7,032	5,898	5,476
Obs. (Non-STEM)	7,375	7,375	7,375	7,078	7,375	5,997	5,633
Obs. (Lower SES)	6,340	6,340	6,340	6,094	6,340	5,172	4,789
Obs. (Higher SES)	8,067	8,067	8,067	7,727	8,067	6,723	6,320

The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Each point estimate is from a separate regression. Bandwidth equals 0.75. STEM are students in the college of engineering, architecture and sciences. Non-STEM students are those in the college of agriculture, Business and Liberal Arts. All regressions include controls: cohort fixed effects, high school GPA, whether a student is non-white, gender, Math and English remedial status, Pell eligibility status, whether a student as a missing EFC score, and indicators for whether parents attended college. Each point estimate is from a separate regression. Robust standard errors in parentheses.*** p<0.01, ** p<0.05, * p<0.1

Table B3: 'Donut' DiRD Results

	(1) Dropout Q1	(2) Dropout Q2	(3) Dropout Q3	(4) GPA (Q2 + Q3)	(5) Earned Credits (Q2 + Q3)	(6) Grad. 4 yr.	(7) Grad. 6 yr.
Bandwidth= 0.5	-0.017	-0.013	-0.094**	0.192*	1.435*	0.034	0.092
	(0.018)	(0.024)	(0.046)	(0.114)	(0.850)	(0.048)	(0.062)
With Controls	-0.016	-0.011	-0.093**	0.216*	1.413*	0.023	0.088
	(0.018)	(0.024)	(0.045)	(0.112)	(0.851)	(0.047)	(0.061)
Observations	8,369	8,369	8,369	7,989	8,369	6,930	6,427
Bandwidth= 0.75	-0.012	-0.005	-0.080**	0.174*	1.452**	0.041	0.074
	(0.016)	(0.021)	(0.038)	(0.093)	(0.706)	(0.039)	(0.050)
With Controls	-0.012	-0.005	-0.076**	0.170*	1.418**	0.029	0.065
	(0.016)	(0.021)	(0.038)	(0.091)	(0.705)	(0.038)	(0.049)
Observations	13,803	13,803	13,803	13,238	13,803	11,358	10,601
Bandwidth= 1	-0.009	-0.002	-0.090***	0.165**	1.304**	0.023	0.041
	(0.014)	(0.018)	(0.032)	(0.078)	(0.599)	(0.032)	(0.042)
With Controls	-0.009	-0.002	-0.088***	0.158**	1.249**	0.009	0.035
	(0.014)	(0.018)	(0.032)	(0.076)	(0.596)	(0.031)	(0.041)
Observations	21,621	21,621	21,621	20,838	21,621	17,744	16,641

The sample includes all first-time freshmen enrolled at the University in the entering fall cohorts 2007-2017. Controls include cohort fixed effects, high school GPA, gender, non-white, resident of CA, math and English remedial status, Pell Grant eligibility status, whether EFC scores are missing and indicators for whether parents attended college. Each point estimate is from a separate regression. Robust standard errors in parentheses. 'Donut' DiRD results are equivalent to differencing two local linear RD regressions after excluding the heaping point at GPA = 2.0.

Table B4: Summary Statistics for Labor Market Outcomes

	Full Sample mean/sd	Bandwidth=1 Q1 GPA$\in [1-3]$ mean/sd	Pre-program yrs. Q1 GPA$\in [1-2)$ Probation mean/sd	Pre-program yrs. Q1 GPA$\in [2-3]$ No Probation mean/sd	Program yrs. Q1 GPA$\in [1-2)$ Probation + FYSP mean/sd	Program yrs. Q1 GPA$\in [2-3]$ Neither mean/sd
Total earnings this qtr	11597.99	10857.89	8617.57	10234.52	8896.90	12043.04
	(13913.45)	(11767.06)	(10836.11)	(10791.38)	(10532.43)	(12515.17)
Log total earnings this qtr	9.41	9.33	9.05	9.27	9.14	9.45
	(0.93)	(0.94)	(1.04)	(0.93)	(1.01)	(0.89)
Employed in this qtr	0.71	0.72	0.70	0.73	0.68	0.73
	(0.45)	(0.45)	(0.46)	(0.44)	(0.47)	(0.44)
Cumulative qtrs worked	15.87	16.06	16.34	16.77	15.07	15.69
	(8.00)	(8.10)	(8.70)	(8.20)	(8.36)	(7.83)
Avg pay at firm this qtr	17880.17	17034.38	14057.96	16028.30	15739.06	18252.43
	(39580.22)	(27215.66)	(21051.73)	(19209.30)	(24083.56)	(33475.03)
Age	24.79	24.80	24.93	24.92	24.73	24.71
	(0.91)	(0.92)	(0.92)	(0.92)	(0.92)	(0.91)
Student-Qtrs	247,558	127,626	11,016	40,392	11,006	55,642
Students	27,097	13,858	918	3,366	1,363	7,166

Notes: Table displays means and standard deviations in parentheses. The sample is limited to quarters 6-9 years since the student enrolled. The last calendar quarter included in the sample is 2019q4.

Table B5: Diff-in-RD Employment Results

	(1)	(2)	(3)	(4)
	Log Earnings	Firm Avg Pay	Employed	Cumulative Experience (Qtrs)
All Students	0.0993	1,219	–0.0664*	–1.90**
	(0.108)	(1,664)	(0.0386)	(0.806)
Control Mean	9.07	14,128	0.751	17.9
Observations	84,098	82,816	116,160	116,160
Female Student	–0.221	–2,058	–0.160**	–3.67***
	(0.171)	(2,731)	(0.0628)	(1.29)
Male Student	0.293**	3,241	–0.0147	–0.811
	(0.137)	(2,111)	(0.0489)	(1.02)
STEM student	0.155	2,440	–0.0598	–1.30
	(0.150)	(2,086)	(0.0545)	(1.11)
Non-STEM student	0.00761	–570	–0.0763	–2.71**
	(0.160)	(2,747)	(0.0562)	(1.19)
Lower SES	0.335*	2,696	–0.00935	–0.120
	(0.172)	(2,360)	(0.0587)	(1.25)
Higher SES	–0.0856	–508	–0.108**	–3.07***
	(0.135)	(2,349)	(0.0515)	(1.06)
Ctrl Mean (Female Student)	8.95	12,690	0.741	18.4
Obs. (Female Student)	35,509	35,052	48,396	48,396
Ctrl Mean (Male Student)	9.18	15,233	0.766	17.6
Obs. (Male Student)	48,589	47,764	67,764	67,764
Ctrl Mean (STEM student)	9.28	18,642	0.713	15.0
Obs. (STEM student)	42,544	42,018	60,420	60,420
Ctrl Mean (Non-STEM student)	9.12	14,185	0.774	17.9
Obs. (Non-STEM student)	41,554	40,798	55,740	55,740
Ctrl Mean (Lower SES)	9.02	12,080	0.785	19.3
Obs. (Lower SES)	33,114	32,569	46,032	46,032
Ctrl Mean (Higher SES)	9.11	15,310	0.733	17.1
Obs. (Higher SES)	50,984	50,247	70,128	70,128

Note: Table displays student-quarter level regressions, where the sample is limited to quarters 6-9 years since the student enrolled, and to students who enrolled in or before 2011. The last calendar quarter included in the sample is 2019q4. Standard errors are cluster-robust at the student level, and regressions are weighted by one over the number of quarters in which a given student is present in the regression sample. Dollar amounts have been adjusted to 2019 dollars using the Consumer Price Index for All Urban Consumers. All regressions use a bandwidth of 1.0 grade points on either side of the cutoff. A */**/*** indicates significance at the 10/5/1% levels.

C FYSP Workshop Materials

Campus Resource Guide

Campus Resources (Scan QR codes to learn more!)

1-3: Study Skills: Find resources and videos on popular topics such as:

- Study strategies, text anxiety tips and study guides
- Flashcards, video tutorials, interactive exercises
- Lecture note taking
- Memorization
- Learning style (Vark Questionnaire)

Study Skills

4-5: Tutoring on Campus (Location Varies)

- Free 1-1 or group tutoring for a variety of classes
- Supplemental Workshops: 1 unit workshop to go alongside certain Science and Math classes. Recap information from class, get help with study skills, test prep, and group studying.
- Study sessions: Weekly sessions made of 8-15 students for multiple subjects. Submit a request through the portal

Tutoring

6-7: Office hours can sometimes be intimidating and confusing on what you should ask. Here are some helpful tips:

- If office hours conflict with your schedule, contact professors for an alternate time to meet. They are more than happy to help out!
- Show problems on homework or tests that you were confused about, ask the professor to walk you through each steps.
- Bring in class notes that you would like more explanations on
- Explain your study strategies and ask about additional tips or tricks

Professors are very knowledgeable in their field and know of many outside resources and sometimes even internship or research opportunities, get to know them!

8-9: Associated Students, Inc. (ASI):

- Student Government
- Clubs and Organization
- Craft Center Classes
- The Recreation Center
- Activities and events

ASI

Dean of Students

- Club Sports
- Center For Service in Action
- Center for Leadership
- Fraternity & Sorority Life

Dean of Students

10: Cross Cultural Centers(Location varies)

- **Gender Equity Center-** Educating and empowering feminist, womxnist, mujerista moments though an intersectional lens and striving for social justice.
- **Men & Masculinity-** Creates spaces to express and evaluate masculinity and intersections with other identities through programs, dialogs and trainings.
- **Multicultural Center-** Provides space and events for people across all races, ethnicities, gender, sexual orientation, disability, economic class, religion, citizenship and their intersections
- **Pride Center-** Provides brave spaces and events to all sexualities, gender identities and expressions. Check out their peer mentoring program!

CCCs

Student Academic Services (Location Varies)

- **Dream Center-** Offers an inclusive space and a multitude of events for all undocumented students, those in mixed-status families and their allies. Stop by for a space to study, or to hang out with friends!
- **Black Academic Excellence Center (BAEC)-** Offers a supportive and enriching environment to promote excellence among Black students on campus. Stop by their center to say hello or attend one of their events!

SAS

11-14: Campus Health and Wellbeing (Bldg. 27):

Health Services:

- Mostly free services
- Walk in or make an appointment for medical attention or advice
- Educational programs about drugs, alcohol, sexuality and other topics
- On site lab testing, X-rays, and Shots (e.g Flu, TB tests)
- Discounted Pharmacy
- After-hours nurse advice
- PULSE peer mentoring health education program, covering topics such as, drugs and alcohol use and/or recovery, physical and sexual health and mental well being.

Health & Wellbeing

Counseling Services:

- Individual, couples, group therapy sessions
- Emotional Well Being Workshops
- End of Quarter Survival Kit Workshops
- Clinicians specializing in: Anxiety, Eating Disorders, Multicultural issues, Trauma, Alcohol and Drug Abuse, Suicide Prevention and many more.

Counseling Services

15-18: Basic Needs & Crisis Services (Location Varies)

Food Insecurity:

- CalFresh- Provides monthly payments to eligible students that can be used where food is sold like grocery stores, and farmers markets.
- Meal Vouchers- Students experiencing short-term financial need, can dine at 805 Kitchen during the school year and The Avenue for the summer.
- Food Pantry (Bldg 27, Lower Level)- Students can access free, packed and canned foods, frozen meals and personal hygiene products.
- Food Bank Distribution- Once a week on Mott Lawn, bags of fresh produce and food for free.

Basic Needs

Financial Hardships:

- Cares Grant- One-time grant for unexpected emergencies like, paying for tuition, academic supplies, medical expenses, emergency housing and other temporary hardships.
- Professional Clothing Closet- Free, high-quality work clothes for interviews and future internships and jobs
- Financial Aid Office: Offers daily drop in hours where students can meet with a counselor to discuss ways to cover the cost of college.

15-18 (Cont.): Crisis Services

- Safer (Bldg 65, Rm 217)- Provides confidential crisis counseling, advocacy and education and support resources by state-certified advocates. Learn about your options, rights, and other resources about sexual assault or misconduct, dating or domestic violence and stalking.

Safer

Reporting Hate Crimes

- Bias Incident Report- If you believe you have witnessed an act of discrimination or harassment on or off campus, you may file a report online though the Dean of Students.

Bias Incident Report

19-20: Career Services (Bldg. 124): Drop in or make an appointment with the Freshman Focus Team or any other Career Counselor to talk about:

- Career exploration
- Major Exploration
- Interviewing skills
- Resume and Cover letter

Career Services

21-22: Advising Centers: Have a question and don't know where to start? Visit an advisor!

College Advising Center: CAED, CAFES, CENG, CLA, CSM, OCOB,

- Course planning
- Navigating your curriculum
- Major and support related classes
- Tracking progress to degree
- Concentration

Specialty Advising

- Pre-Health Career Advising
- International/Study Abroad

Success Center (Bldg 52-D37):

- Referring you to academic and/or on-campus resources
- Understanding university and college-specific policies and procedures
- Navigating tools such as PASS and Student Center
- Change of Major process
- GE Classes
- Minors
- Transfer courses

Advising

23-24: Conflict resolution Ombuds (Library 35-113):

- If you feel that you got an unfair grade in a class
- If you feel that you got treated unfairly by someone in the University Community
- If you want to discuss a sensitive question or issue

Ombuds

25: Disability Resource Center (Bldg. 124): Provides services to those with long-term or short-term disabilities:

- How to request services
- Eligibility
- Information on testing for Learning Disabilities
- Possible accommodations - in and outside the classroom
- Peer Mentor Program

DRC

xx

My Success Plan

I decided to attend University X because:

_____
_____

A positive experience I have had at University X:

_____
_____

My favorite part of University X:

_____
_____

During my time at University X, I am most looking forward to:

_____
_____

Creating S.M.A.R.T. Goals

S	M	A	R	T
Specific Make your goal detailed and specific to know what you are working towards	**Measurable** Set parameters so that you can identify tangible evidence towards achieving your goal	**Attainable** Draft realistic goals that challenge you but you are confident to achieve	**Relevant** Make sure each goal is consistent with other goals you have established and fits with your immediate and long-term plans	**Time-Bound** Set a time that you would like to achieve your goal by

Original Goal:		**SMART Goal:**
I want to read more	**S**: 12 books a year **M**: 1 book a month **A**: 1 hour at lunch, 1 hour before bed **R**: More than currently reading **T**: 1 book a month, 12 a year	I am going to read 1 book a month by reading for an hour during lunch and an hour before bed for a total of 12 books a year.

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WINTER QUARTER SMART GOAL:

Action steps:

I will complete the following action steps:

Personal	Academic	Social
(ex: *I will create a calendar/schedule to keep me on track with attending classes & completing assignments)*	**(ex: *I will use time in between classes to study, read, and review notes)***	**(ex: *I will refrain from social outings, TV, parties, social media, video games, etc. until all my homework is complete for that day)***

Resources:

I will utilize the following resources to help me achieve my goal:

(Example: I will visit the Success Center, , by Week 3 to discuss Change of Major)

1. I will visit _____located in_____by_____

   to discuss_____

2. I will visit _____located in_____by_____

   to discuss_____

Challenges: (What could stop/de-motivate me along the way?)

1. _____
2. _____

Ways to overcome my challenges:

1. _____
2. _____

Who's got your back? (The person(s) in my life that I will share my action plan with and ask to help keep me accountable for accomplishing my goal & action steps)

_____

I am fully committed to completing this success plan this quarter.

SIGN: _____DATE:_____

You will receive an email from your Coach in Week 5 to follow up on your goals and action steps. Once you have communicated with your coach and completed a post-survey, your requirements with the First Year Success Program will be fulfilled.

ACADEMIC SKILLS CENTER

Weekly Schedule

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
6:00 AM							
7:00 AM							
8:00 AM							
9:00 AM							
10:00 AM							
11:00 AM							
12:00 PM							
1:00 PM							
2:00 PM							
3:00 PM							
4:00 PM							
5:00 PM							
6:00 PM							
7:00 PM							
8:00 PM							
9:00 PM							
10:00 PM							
11:00 PM							
12:00 PM							
1:00 AM							
2:00 AM							

Quarter Schedule

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Week 1							
Week 2							
Week 3							
Week 4							
Week 5							
Week 6							
Week 7							
Week 8							
Week 9							
Week 10							
Week 11							
Finals							

D FYSP Pre- and Post-Surveys

All surveys were administered via the online platform SurveyMonkey.

Pre-Survey for Students Qualifying for FYSP in Fall 2013

Q1: What is your first name?

Q2: What is your last name?

Q3: What is your university email address?

Q4: Which college are you from?

Q5: In the Freshman Success Workshop, you will participate in a small group that will be led by an academic coach. An academic coach will lead a discussion and help group members develop an action plan to achieve success after being put on academic probation. Please check all the ways you wish to work with an academic coach.

- ☐ Identify resources to improve my study skills
- ☐ Generally improve my academic performance
- ☐ Identify ways to achieve my goal GPA
- ☐ Identify why my grades do not reflect my effort
- ☐ Stay motivated and on track to achieve my academic goals
- ☐ Learn about relevant policies
- ☐ Reduce anxiety and stress about my academic performance
- ☐ Complete the Freshman Success Workshop
- ☐ Other, please explain

Q6: On average, how many hours per week do you study?

Q7: On average, how many hours do you sleep each night?

Q8: How many times did you attend faculty office hours last quarter?

Q9: How many hours each day do you spend socializing or doing extracurricular activities?

Q10: How many hours each day do you spend watching TV, going on Facebook, gaming, etc.?

Q11: Please read the below prompts and respond to each with one of the following options: "Always, Sometimes or Rarely".

- ☐ I feel motivated to focus on school.
- ☐ I complete the assigned reading for all my classes.
- ☐ My class notes help me prepare adequately for a test.

- ☐ I retain the information I read for homework assignments.
- ☐ I feel confident about my writing ability.
- ☐ I take the time to revise my writing to make it clear, correct, and consistent.
- ☐ I easily and effectively communicate my thoughts.
- ☐ When I do not understand my professor, I ask the right questions to clarify.
- ☐ I easily remember things I learn in class.
- ☐ At the end of a lecture, I can summarize what was presented.
- ☐ I feel confident when taking an exam.
- ☐ When I think I did poorly on a test I just finished, I go back to my notes and review all the information I had forgotten.
- ☐ I prepare in advance for a test rather than "cramming" the night before.
- ☐ I manage my time well.
- ☐ I change my other priorities to have enough time for studying and completing course assignments.
- ☐ I can successfully balance many aspects of my life (such as friends, family, school, work, extracurricular, etc.).
- ☐ I study even when less important things distract me.
- ☐ When I have to take a course that doesn't interest me, I find a way to motivate myself to earn a good grade.
- ☐ I attend my classes regularly.
- ☐ I ask for help from family members, friends, or other appropriate individuals when needed.
- ☐ I know about the student services offered by Cal Poly and know how to use them.
- ☐ I easily adjust my learning style to my instructors' teaching styles.
- ☐ I feel connected to a community at Cal Poly.

Post-Survey for Students Qualifying for FYSP in Fall 2013

Q1: What is your first name?

Q2: What is your last name?

Q3: What is your university email address?

Q4: Which college are you from?

Q5: What day and time did you attend a workshop?

Q6: Please rate your academic coach in the following areas by selecting "Excellent, Average, Below Average, or Not Applicable" for each of the following:

- ☐ Approachability
- ☐ Knowledge
- ☐ Preparation

Q7: Which part of the Freshman Success Program was most effective? (select one)

- ☐ The presentation at the beginning
- ☐ The breakout session
- ☐ Both were equally effective

Q8: What did you find most beneficial from the big session? (please select one)

- ☐ Identified resources to improve my study skills
- ☐ Identified ways to achieve my goal GPA
- ☐ Identified why my grades do not reflect my effort
- ☐ Learned about relevant policies
- ☐ Learned how to improve my academic performance
- ☐ More motivated and on track to achieve my academic goals
- ☐ Reduced anxiety and stress about my academic performance
- ☐ I didn't find anything beneficial from this session
- ☐ Other (please explain)

Q9: What did you find most beneficial from the small group breakout session? (please select one)

- ☐ Discussion with other students
- ☐ Learning about resources
- ☐ SMART goals/goal setting
- ☐ The Self-Evaluation

- ☐ I didn't find anything beneficial from this session
- ☐ Other (please explain)

Q10: As a result of attending the Freshman Success Program, I am more likely to...(check all that apply)

- ☐ Attend class
- ☐ Do the assigned reading
- ☐ Manage my time more efficiently
- ☐ Seek out resources I need
- ☐ None of the above
- ☐ Other (please explain)

Q11: Next year, if we were to incorporate a student panel (video) segment into the big presentation of previous students on academic probation, would you be interested in participating?

Q12: In what area do you think your behavior has changed the most this quarter? (please select one)

- ☐ Increased the number of hours of sleep per night
- ☐ Increased the number of hours spent studying per day
- ☐ Increased the number of visits to office hours
- ☐ Managing my time better
- ☐ Utilizing campus resources

Q13: So far this quarter, how many hours per week do you study?

Q14: So far this quarter, on average, how many hours do you sleep each night?

Q15: So far this quarter, how many times have you been to faculty office hours?

Q16: So far this quarter, how many hours each week do you spend socializing or doing extracurricular activities?

Q17: So far this quarter, how many hours each week do you spend watching TV, going on Facebook, gaming, etc.?

Q18: Please read the below prompts and respond to each with one of the following options: Always, Sometimes or Rarely.

- ☐ I feel motivated to focus on school.
- ☐ I complete the assigned reading for all of my classes.
- ☐ My class notes help me prepare adequately for a test.

- ☐ I retain the information I read for homework assignments.
- ☐ I feel confident about my writing ability.
- ☐ I take the time to revise my writing to make it clear, correct, and consistent.
- ☐ I easily and effectively communicate my thoughts.
- ☐ When I don't understand my professor, I ask the right questions to clarify.
- ☐ I easily remember things I learn in class.
- ☐ At the end of a lecture, I am able to summarize what was presented.
- ☐ I feel confident when taking an exam.
- ☐ When I think I did poorly on a test I just finished, I go back to my notes and locate all the information I had forgotten.
- ☐ I prepare in advance for a test rather than "cramming" the night before.
- ☐ I manage my time well.
- ☐ I change my other priorities to have enough time for studying and completing course assignments.
- ☐ I can successfully balance many aspects of my life (such as friends, family, school, work, extracurricular, etc.).
- ☐ I study even when less important things distract me.
- ☐ When I have to take a course that doesn't interest me, I can find a way to motivate myself to earn a good grade.
- ☐ I attend my classes regularly.
- ☐ I ask for help from family members, friends, or other appropriate individuals when needed.
- ☐ I know about the student services offered by Cal Poly and know how to use them.
- ☐ I easily adjust my learning style to my instructors' teaching styles.
- ☐ Although I exert great effort, my grades are lower than I expect them to be.
- ☐ I feel connected to a community at Cal Poly.

Q19: Do you have any additional comments you would like to add?

Pre-Survey for Students Qualifying for FYSP in Fall or Winter 2015-2018

Q1: What is your first name?

Q2: What is your last name?

Q3: What is your university email address?

Q4: Which college are you from?

Q5: What is your major?

Q6: After taking the StrengthsFinder assessment, what are your top five strengths?

Q7: Which statement best applies to you?

- ☐ I know I am not the only one on academic probation at Cal Poly.
- ☐ I feel as though I am the only one on academic probation at Cal Poly.

Q8: Which statement best applies to you?

- ☐ I can identify a staff or faculty member at Cal Poly who cares about my success.
- ☐ I am looking for a staff or faculty member at Cal Poly who cares about my success.

Q9: Looking back at Fall Quarter, were there internal factors affecting your academic performance? Mark up to three that apply to you regarding your Fall Quarter academic difficulties.

- ☐ I could not find motivation to focus on academics.
- ☐ I felt like I did not have the appropriate study skills to succeed.
- ☐ I managed my time poorly.
- ☐ I did not attend all my classes.
- ☐ I recognized that I was having difficulty, but I was not comfortable seeking campus resources.
- ☐ I focused on extracurricular activities more than I should have.
- ☐ None of the above (no internal factors affected my academic performance).
- ☐ Other (please explain).

Q10: Looking back at Fall Quarter, were there external factors affecting your academic performance? Mark up to three that apply to you regarding your Fall Quarter academic difficulties.

- ☐ I had roommate issues that kept me from studying.
- ☐ I do not like my major and, therefore, did not do well in my classes.
- ☐ I had mostly General Education classes and was not interested in my classes.

- ☐ I got sick and missed too many classes.
- ☐ I had a personal crisis and had to focus my energy in other areas besides school.
- ☐ I had a bad professor(s) during Fall Quarter, which led to me being on Academic Probation.
- ☐ I did not have a choice in my block enrolled schedule, so I didn't like the times I had classes.
- ☐ None of the above (no external factors affected my academic performance).
- ☐ Other (please explain).

Q11: Which statement best applies to you?

- ☐ I know of at least one campus resource that will help me get back on track.
- ☐ I do not know of at least one campus resource that will help me get back on track.

Q12: List your involvement in campus clubs, organizations, or activities.

Q13: List your interests outside of your academic life.

Q14: Which statement best applies to you?

- ☐ I am motivated to focus on my academics at Cal Poly.
- ☐ I am not motivated to focus on my academics at Cal Poly.

Q15: Which statement best applies to you?

- ☐ I feel connected to Cal Poly.
- ☐ I do not feel connected to Cal Poly.

Q16: Which statement best applies to you?

- ☐ I am confident in my time management skills.
- ☐ I am not confident in my time management skills.

Q17: How confident are you in your decision to attend Cal Poly?

Q18: How confident are you that you will be able to get your grades up enough to be taken off academic probation by the end of Winter Quarter?

Q19: How confident are you that you will graduate from Cal Poly?

Post-Survey for Students Qualifying for FYSP in Fall or Winter 2015-2018

Q1: What is your first name?

Q2: What is your last name?

Q3: What is your university email address?

Q4: Which college are you from?

Q5: After the First Year Success Program, which statement best applies to you?

- ☐ I know I am not the only one on academic probation at Cal Poly.
- ☐ I feel as though I am the only one on academic probation at Cal Poly.

Q6: After the First Year Success Program, which statement best applies to you?

- ☐ I can identify a staff or faculty member at Cal Poly who cares about my success.
- ☐ I still have not yet found a staff or faculty member at Cal Poly who cares about my success.

Q7: Looking back at Fall Quarter, were there internal factors affecting your academic performance? Mark up to three that apply to you regarding your Fall Quarter academic difficulties.

- ☐ I could not find motivation to focus on academics.
- ☐ I felt like I did not have the appropriate study skills to succeed.
- ☐ I managed my time poorly.
- ☐ I did not attend all my classes.
- ☐ I recognized that I was having difficulty, but I was not comfortable seeking campus resources.
- ☐ I focused on extracurricular activities more than I should have.
- ☐ None of the above (no internal factors affected my academic performance).
- ☐ Other (please explain).

Q8: Looking back at Fall Quarter, were there external factors affecting your academic performance? Mark up to three that apply to you regarding your Fall Quarter academic difficulties.

- ☐ I had roommate issues that kept me from studying.
- ☐ I do not like my major and, therefore, did not do well in my classes.
- ☐ I had mostly General Education classes and was not interested in my classes.
- ☐ I got sick and missed too many classes.
- ☐ I had a personal crisis and had to focus my energy in other areas besides school.

- ☐ I had a bad professor(s) during Fall Quarter, which led to me being on Academic Probation.
- ☐ I did not have a choice in my block enrolled schedule, so I didn't like the times I had classes.
- ☐ None of the above (no external factors affected my academic performance).
- ☐ Other (please explain).

Q9: Do you feel that incorporating your top five strengths helped you come up with a relevant and productive Winter Quarter goal?

- ☐ Yes
- ☐ No
- ☐ Other (please explain)

Q10: After the First Year Success Program, which statement best applies to you?

- ☐ I know of at least one campus resource that will help me get back on track.
- ☐ I do not know of at least one campus resource that will help me get back on track.

Q11: Which statement best applies to you?

- ☐ After identifying a resource (academic advising, Career Services, professor's office hours, etc.) in the First Year Success Program, I have not utilized this resource by the time of completing this survey.
- ☐ After identifying a resource (academic advising, Career Services, professor's office hours, etc.) in the First Year Success Program, I have utilized this resource by the time of completing this survey.

Q12: After the First Year Success Program, which statement best applies to you?

- ☐ I am more motivated to focus on my academics at Cal Poly.
- ☐ I am equally as motivated to focus on my academics at Cal Poly as before the program.

Q13: After the First Year Success Program, which statement best applies to you?

- ☐ I feel more connected to Cal Poly.
- ☐ I feel equally as connected to Cal Poly as before the program.

Q14: After the First Year Success Program, which statement best applies to you?

- ☐ I am more confident in my time management skills.
- ☐ I am equally as confident in my time management skills as before the program.

Q15: After the First Year Success Program, how confident are you in your decision to attend Cal Poly?

Q16: After the First Year Success Program, how confident are you that you will be able to get your grades up enough to be taken off academic probation by the end of Winter Quarter?

- ☐ Very confident
- ☐ Confident
- ☐ Somewhat confident
- ☐ Not confident

Q17: After the First Year Success Program, how confident are you that you will graduate from Cal Poly?