Unpacking the Long-Term Impact of Holistic Supports for Community College Students

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Abstract

This paper presents longer-term findings from a randomized controlled trial of One Million Degrees (OMD), a comprehensive support program for community college students in the Chicago metro area that provides financial, academic, personal, and professional assistance. Results from an initial evaluation found that an offer of a spot in the OMD program led to increased college enrollment, persistence, and associate degree attainment three years after randomization. With eight years of follow-up, we find that these effects persist, indicating the program causes applicants to enroll in and complete more degrees rather than solely accelerating completion. The impacts are concentrated among students who applied while still in high school compared to continuing community college students. For high school applicants, participation in OMD significantly improved labor market outcomes: in every year after randomization, they were more likely to be enrolled in school full time or employed full time, and by year seven they earned higher wages and held more stable jobs. For students already enrolled in community college, effects on labor market outcomes are positive but not statistically significant. For both high school and community college applicants, we observe positive, albeit insignificant, effects on bachelor's degree attainment eight years after randomization. Taken together, these findings suggest that OMD improves long-term employment outcomes with effects operating through both increased degree attainment as well as the broader benefits of mentoring and advising. Compared to other holistic support models, we find smaller (though less precise) effects for students already in college, but larger gains in long-run attainment and earnings for students applying directly from high school. This highlights the importance of extending holistic supports to students at the critical decision stage of initial college entry, rather than limiting the offer of supports to those who have already enrolled.

I Introduction

Community colleges are a primary gateway to higher education for low-income and historically underserved students, yet the majority of those who enroll do not complete (Levesque, 2018). Nationally, fewer than 40 percent of community college students earn a certificate or degree within six years of enrollment (Bailey, Jaggars and Jenkins, 2015). Compared to four-year universities, community colleges enroll a higher share of first-generation, Pell-eligible, and nontraditional students such as parents, GED holders, older adults, and those living off campus (Community College Research Center, 2021) who face a wider range of academic and nonacademic barriers. These include navigating complex transfer and articulation agreements, balancing work and caregiving responsibilities, managing transportation challenges, and coping with basic-needs insecurity (The Hope Center for College, Community, and Justice, 2025), all of which can contribute to low completion rates. Holistic student support models seek to address these intertwined constraints by bundling proactive advising, tutoring, career services, scheduling/degree-planning supports, in addition to financial assistance.

This paper evaluates the long run effects of a specific holistic support model operated by an independent non-profit organization: One Million Degrees (OMD), which provides wraparound financial, academic, professional, and personal supports for community college students delivered through program staff and volunteer coaches. In prior work, we documented meaningful increases on short-term academic outcomes including college enrollment (especially among high-school applicants), full-time enrollment, persistence, and three-year associate degree completion. In this seven year follow up, we examine longer-term academic outcomes such as whether OMD's short-run academic gains translate into durable improvements in both associate and bachelor's degree attainment. We also examine the longer-run impacts on labor market outcomes including full time employment, job stability, and wages.

This study builds on a growing body of experimental evidence (Scrivener et al., 2015; Weiss et al., 2019; Evans et al., 2020; Brockman et al., 2025) showing that comprehensive support models improve persistence and completion. We extend this literature in three ways. First, unlike prior interventions limited to already-enrolled students, OMD targets students during the transition from high school to college, a critical enrollment margin that has been largely overlooked. Second, OMD is delivered by an external nonprofit rather than by the colleges themselves, offering insight into alternative partnership models for scaling. Third, by following students for nearly a decade and linking to UI wage data, we are one of only two studies to provide experimental evidence on long-run labor-market returns to holistic supports (Hill, Warner and Sommo, 2025).

We find that participation in OMD not only increases degree attainment relative to control students, but also improves labor market outcomes measured several years after random assignment, evidence that a nonprofit, partnership-based holistic model can deliver benefits that persist into the workforce. These findings complement the large effects documented for institution-embedded models like ASAP which found positive effects on associate degree completion (Scrivener et al., 2015; Weiss

et al., 2019), bachelor's degree completion, and earnings up to eight years after program participation (Hill, Warner and Sommo, 2025). Compared to these evaluations, we document smaller (albeit less precise) impacts on program participants who were already enrolled in community college, but find larger effects on long-run degree attainment and earnings for program participants who were still enrolled in high school at the time of application. These findings highlight the importance of extending supports to students who are making the decision to enroll in college rather than only offering supports to students who are already enrolled.

The rest of the paper proceeds as follows. Section II details the OMD model and implementation, Section III describes our data and empirical strategy, Section IV reports impacts on long-run degree attainment and labor market outcomes, and Section V concludes.

II Background

One Million Degrees (OMD) is a Chicago-based nonprofit organization that provides four pillars of wraparound supports to community college students: academic, financial, professional, and personal. Each OMD scholar is assigned to a campus-based program coordinator with a caseload of roughly 60–65 students. Coordinators meet with students at least monthly, and as often as weekly for those at higher risk of stopping out to monitor academic progress, set goals, and connect them to campus resources. In addition, OMD students attend monthly workshops focused on skill-building, networking, and career readiness, where they engage with volunteer professional coaches who provide mentorship and guidance. Scholars who are in good standing receive stipend of $750–$1,000 per year and are eligible for additional enrichment grants. To remain in good standing, participants must enroll full time, attend required meetings and workshops, and comply with tutoring requirements if they receive a grade below a C or are placed in developmental education.

Eligibility for the program is limited to students who are Pell-eligible or meet the criteria for the City Colleges' Star scholarship (have at least a 3.0 high school GPA) and are pursuing their first college degree with at least one academic year remaining before graduation. Students who already hold an associate's or bachelor's degree, who do not qualify for need-based aid, or who are unable to maintain full-time enrollment are ineligible to participate. Applicants submit documentation of transcripts, proof of full-time enrollment, and financial aid eligibility as part of their admission process.

The OMD model differs from the City University of New York's Accelerated Study in Associate Programs (ASAP) in a few important ways. First, while ASAP was offered only to students who had already enrolled in community college and had less than 15 college credits completed, OMD was also offered to students who were currently in high school and applying to attend community college, as well as to those who were already partway through their program (but had at least one year left). Second, while CUNY ASAP provided students with a monthly transportation card valued at over $100 per month, OMD instead offered an unrestricted stipend of $750–$1,000 per year. Finally, while ASAP is administered directly through the community college system, OMD

is operated by an independent nonprofit organization. These distinctions suggest that OMD represents an alternative approach for delivering comprehensive supports that may be more adaptable for scaling to institutions across the country.

To evaluate the effectiveness of the OMD model, the University of Chicago Inclusive Economy Lab partnered with OMD and participating colleges to implement a randomized controlled trial (RCT). Randomization was conducted in the springs of 2016, 2017, and 2018 among eligible applicants identified through the program's normal application process. After OMD screened applications to verify eligibility, the research team randomly assigned students to receive or not receive an offer to participate. Assignment was blocked by intended campus and by applicant type (high school applicants versus current community college students) to ensure balance across subgroups. In total, 4,896 students were randomized, with 2,573 offered a spot in the program. Randomized offers were extended in late spring or early summer, and OMD staff continued outreach through the summer months to encourage take-up.

Out of all eligible applicants offered a spot in the program, approximately 35 percent enrolled in the program (892 students). However, take-up rates varied by cohort and applicant type. Applicants who applied while still in high school were less likely to take up the program than applicants who were already in community college when they applied (Figure 1).

III Methods

In the subsections that follow, we describe our data sources, the construction of our main outcome variables, summary statistics for the sample, and our empirical strategy.

III.A Data

Our analysis draws on three main data sources. OMD administrative records provide treatment assignment and baseline demographics from student applications. National Student Clearinghouse (NSC) data capture college enrollment and degree completion. As of Fall 2011, NSC records covered approximately 93 percent of U.S. college enrollment (Dynarski, Hemelt and Hyman, 2015), making them the most comprehensive source for tracking postsecondary enrollment and degree attainment. Finally, state Unemployment Insurance (UI) wage records from the Illinois Department of Employment Security (IDES) provide measures of employment and earnings. The IDES data have two key limitations. First, linkage requires a valid Social Security number (SSN). In our sample, 4,263 students (about 87 percent of applicants) provided an SSN, enabling us to match them to wage records. Second, the data only capture employment within Illinois; out of state employment is not observed. Whenever we cannot observe wages for an individual, we impute earnings as zero. Given these constraints, labor market outcomes in our analysis should be interpreted either as an upper bound of the true effect on wages or as the impact on employment and earnings *within Illinois*.

Our main outcomes of interest include college enrollment, college degree completion, labor market participation, and yearly wages. We estimate program impacts on these outcomes in each year following randomization. For enrollment, we track not only whether applicants attended any

college, but also whether they enrolled in a two-year or four-year institution and whether they attended full- or part-time. We construct both current enrollment and cumulative enrollment measures: current enrollment captures whether a student was enrolled in a specific post-randomization year, while cumulative enrollment captures whether a student enrolled at any point between randomization and that year. Current enrollment variables allow us to examine the impact of the program on applicant enrollment trajectories and cumulative enrollment variables allow us to measure the cumulative long-run impact of the program on college enrollment for applicants. Similarly, for our labor market outcomes we examine the impact of the program on both yearly and cumulative wages for applicants each year after randomization. In addition to wages, we also examine whether an applicant is employed in a given year and whether that job is considered to be "stable" (where stable is defined as earning positive wages from the same job for at least three consecutive quarters). Because the UI wage data do not report hours worked, we cannot directly distinguish between full- and part-time employment or calculate hourly wages. Instead, we proxy full-time status as earning more than $15,000 in a year, which is approximately how much someone earning federal minimum wage would make if they worked 40 hours a week for 52 weeks a year. We note, however, that some individuals working part-time could still exceed this wage threshold.

Appendix Table A.1 shows the number of post-randomization years we can observe outcomes for applicants by randomization cohort. We can observe college enrollment and labor market outcomes up to eight years after randomization for our earliest cohort of scholars and up to six years for our last cohort of scholars.

III.B Sample Descriptives

Table 1 shows that even after dropping applicants in our sample for whom we cannot observe their SSN, there are still no statistically significant differences in demographics between our treatment and control applicants. In this sample of students, the average age at randomization is approximately 21 years. Over 70 percent of these applicants are Pell eligible, over 60 percent are female, and less than 5 percent are married or working full-time. The majority of applicants are Black or Hispanic, which is consistent with the student demographics in the City Colleges of Chicago.

III.C Empirical Strategy

We estimate both the effect of a randomized offer of a spot in the program (the Intent-to-Treat or the ITT effect) and the effect of actually enrolling in the program (the Treatment-on-the-Treated or TOT effect). We estimate the ITT effect using the following equation:

$$Y_{ib} = P_{ib}\beta_1 + X_{ib}\beta_2 + \gamma_b + \varepsilon_{ib}$$

Where Y_{ib} is an outcome indicator for individual i in randomization block b, P_{ib} is the treatment assignment indicator for individual i in randomization block b, β_1 is the coefficient for

the treatment indicator which identifies the ITT effect, X_{ib} is a vector of the control covariates described in Table 1 for individual i in randomization block b, β_2 is a vector of coefficients for control covariates, γ_b is the individual intercept for each randomization block b, and ε_{ib} is the error term for individual i in randomization block b.

We also estimate the treatment on the treated (TOT) effects. In our case, since there are no always-takers, the complier average treatment effect (LATE) and the treatment on the treated (TOT) are the same. We calculate the TOT using treatment assignment (in this case a randomized offer of a spot in the OMD program) as an instrument for actual program participation (Angrist, Imbens and Rubin, 1996; Bloom, 1984) and estimate the first stage as follows:

$$T_{ib} = P_{ib}\pi_1 + X_{ib}\pi_2 + \alpha_b + \mu_{ib}$$

Where T_{ib} is an indicator for whether individual i in randomization block b took-up the program (take-up is defined at any engagement with the OMD program), P_{ib} is the treatment assignment indicator for individual i in randomization block b (whether individual i was offered a spot in the program), π_1 is the coefficient for the treatment indicator in the first stage, X_{ib} is the vector of control covariates for individual i in randomization block b, π_2 is a vector of coefficients for control covariates in the first stage, α_b is a vector of fixed effects for each of the randomization blocks, and μ_{ib} is the error term for individual i in randomization block b.

The second stage is modeled as follows:

$$Y_{ib} = \widehat{T}_{ib}\theta_1 + X_{ib}\theta_2 + \varphi_b + \omega_{ib}$$

Where Y_{ib} is an outcome indicator for individual i in randomization block b, $\widehat{T}_{ib}$ is the predicted value of T from the first stage, θ_1 identifies the estimated effect of the intervention for students who took up the program (the TOT effect), X_{ib} is the vector of control covariates for individual i in randomization block b, θ_2 is a vector of coefficients for the control covariates, φ_b is the intercept for each randomization block b, and ω_{ib} is the error term for individual i in randomization block b. All analyses and outcomes were pre-registered with the Open Science Framework prior to accessing outcome data. To benchmark the TOT estimates, we calculate the control complier mean, or the estimated average outcome for those in the control group who would have taken up the treatment had they been offered (Katz, Kling and Liebman, 2001). Following Heller et al. (2017), we estimate the complier control mean by first estimating the expected mean of treated outcomes for compliers and then subtracting our estimate for the TOT effect.

IV Results

IV.A Impacts on College Outcomes

The estimated Intent-to-Treat (ITT) effects on college outcomes for the first eight years after randomization are presented in Figure 2. We find that a randomized offer of a spot in the OMD program leads to statistically significant and substantively meaningful increases in overall college enrollment, full-time enrollment, and degree completion. Importantly, these effects persist over time, suggesting that the program enables students to enroll in and complete more degrees, rather than solely accelerating enrollment or completion.

Figures 3 and 4 show that these impacts are concentrated among high school applicants. In contrast, community college applicants do not experience increased college enrollment as a result of a program offer, which is consistent with our expectations given that they were already enrolled in college at the time of application. However, even though we do not observe a statistically significant increase in enrollment for community college applicants, our ITT estimates show a consistent (though insignificant) increase in enrolling full-time.

For high school applicants, the increase in enrollment is largely driven by greater participation in two-year colleges. In the first two years after randomization, we observe a small, statistically insignificant decrease in four-year enrollment for high school applicants compared to the control group (Figure 3). By years four through eight, however, four-year enrollment increases, though the estimates remain imprecise. This suggests that while some students may initially be diverted from four-year institutions into two-year colleges by the offer of a spot in the program, this diversion does not ultimately reduce their likelihood of attending a four-year university or earning a bachelor's degree.

The estimated Treatment-on-the-Treated (TOT) estimates for high school and community college applicants can be found in Table 3 (TOT figures can be found in Appendix Section A.C). Among high school applicants who take up the offer of the program, OMD program participation increases the likelihood of earning an associate degree by 13 percentage points seven years after randomization. We also observe a 12 percentage point increase in bachelor's degree attainment, although this estimate is not statistically significant. Similarly, for continuing community college applicants, estimates on degree completion are uniformly positive (a 6 percentage point increase in associate degree attainment and a 1 percentage point increase in bachelor's degree attainment) though not statistically significant, suggesting that the program may have positive effects on degree completion for this group of students that our study is underpowered to detect. Overall, the OMD program generates large and sustained increases in immediate and full-time enrollment, as well as significant gains in associate degree attainment. While we do not detect statistically significant effects on bachelor's degree completion, all point estimates are positive.

IV.B Impacts on Employment Outcomes

The estimated Intent-to-Treat (ITT) effects on labor market outcomes for the first seven years after randomization are presented in Figure 5. We find that a randomized offer of a spot in the OMD program increases the probability that students are either enrolled full-time or working full-time throughout our sample period.[1] By year seven, they are more likely to be earning any income, working full time, and working a stable job. We also see consistently positive but insignificant impacts on wages which begin three years after randomization and steadily increase over time. Similarly to the impact of the program on college outcomes, these effects seem to be driven by high school applicants. Table 6 presents our estimated Treatment-on-the-Treated (TOT) effects, which show that seven years after randomization, high school applicants who took up the program were nearly twice as likely to be enrolled in school or working full time, and twice as likely to hold a stable job, compared to similar students in the control group. They also earned $14,246 more – though this estimate is only significant at the 10% level, the corresponding ITT effect of $2,773 is significant at the conventional 5% threshold, and all wage estimates are consistently positive and increasing over time. Coupled with the fact that students in our treatment group were more likely to still be enrolled in college seven years after randomization (Appendix Figure A.1), it is likely that we will see even larger increases in wages as time goes on.

V Discussion

This paper evaluates a holistic supports program called One Million Degrees (OMD) for community college students that combined (i) a last-dollar scholarship covering tuition costs (rarely needed for eligible students who qualify for need-based aid) (ii) a stipend between $750-$1,000 per year for students who attended required coaching and advising meetings, (iii) low-caseload coaching and case management with required tutoring for students at academic risk, and (iv) professional mentoring and career programming. We find that the randomized offer of a spot in the program increased degree attainment by 3 percentage points for those offered a spot in the program and by 9 percentage points among those who became OMD scholars (compliers) eight years after randomization. In addition, seven years after randomization we see a significant increase in full-time employment and working a stable job as well as consistently positive (though insignificant) impacts on wages that are increasing over time.

Compared to other holistic support programs, our effects on college outcomes are of similar magnitude. A randomized controlled trial of the CUNY ASAP model found a 12 percentage point increase in associate degree attainment and no effect on bachelor's degree attainment eight years after randomization (Miller and Weiss, 2022). These impacts are slightly larger but broadly comparable to our finding of a 9 percentage point increase in associate degree attainment after eight years for program participants, also with no effect on bachelor's degree completion. Replications of the ASAP model at three Ohio community colleges yielded similarly positive impacts on student

[1]Note that we proxy full-time status as earning more than $15,000 in a year, which is approximately how much someone earning federal minimum wage would make if they worked 40 hours a week for 52 weeks a year.

success. The most recent eight-year follow-up documented sustained gains in degree attainment, with a 15 percentage point increase in associate degree completion and a 6 percentage point increase in bachelor's degree completion (Hill, Warner and Sommo, 2025).

An important distinction in the estimated impacts of OMD compared to the ASAP support models is that the OMD effects are largely driven by applicants who were still in high school at the time of randomization. Among high school students who participated in the program, we saw a 13 percentage point increase in associate degree attainment and a 12 percentage point (though insignificant) increase in bachelor's degree attainment. For these students, program take-up increased college enrollment by 40 percentage points, suggesting that some of the increases in degree completion operated through the enrollment margin. In contrast, participants of the CUNY ASAP program were already enrolled in community college when randomized. Among our already-enrolled students, we observe positive but smaller and statistically insignificant effects on degree completion relative to ASAP. Despite these differences, the degree completion effects translate into positive labor-market outcomes across both programs. In our OMD evaluation, increases in associate degree attainment were accompanied by improvements in employment stability and earnings. Likewise, an evaluation of ASAP in Ohio found an average earnings gain of roughly $3,000 eight years after randomization for program participants (Hill, Warner and Sommo, 2025). However, the OMD impacts on wages for students who applied to the program while still in high school were much larger at an estimated $14,246 seven years after randomization. Taken together, these findings suggest that holistic student support models can not only increase degree attainment for community college students but also improve long-term employment outcomes, with participants securing more stable and higher-paying jobs. However, promising students who are interested in community college these supports before they make enrollment decisions could possibly have a larger impact on long-run outcomes.

Our findings contribute to a growing body of evidence on the effectiveness of comprehensive support programs for community college students. More broadly, our study reinforces three key lessons from the community college intervention literature. First, the enrollment margin remains a critical point of intervention. Programs that target students during the transition from high school to college may generate particularly large gains in degree attainment by drawing marginal students into higher education. Our findings complement the recent promise program literature, which documents positive effects on degree completion simply from promising additional support to marginal college enrollees, even when those supports were already available (Dynarski and Scott-Clayton, 2013; Carruthers, Fox and Jepsen, 2023). We also find that while eligibility for community college supports may divert some students from initially enrolling in a four-year university, this shift does not reduce their likelihood of eventually enrolling in a four-year institution or earning a bachelor's degree. These findings are consistent with recent evidence on the impact of eligibility for free community college (Carruthers, Fox and Jepsen, 2023; Harrison et al., 2026). Taken together, these findings suggest that holistic support models could enhance their impact by extending eligibility not only to

current community college enrollees but also to first-time applicants making the initial decision of whether to enroll in college and where. Second, the evidence from OMD, ASAP (Miller and Weiss, 2022; Hill, Warner and Sommo, 2025), and Detroit Promise Path (Ratledge et al., 2021) collectively underscores that comprehensive, sustained advising and case management, rather than financial aid alone, are essential to translating enrollment into completion and completion into long-run economic security. Finally, our study demonstrates that these programs need not be limited to institutions with the capacity to embed and sustain them internally; they can also be successfully operated by nonprofit organizations. This is promising for scalability, as it suggests that even smaller community colleges lacking the resources to support such programs on their own could partner with external organizations to deliver them.

Given early results from the evaluation of the One Million Degrees program, City Colleges of Chicago has begun scaling the initiative across its entire system, phasing implementation in using a campus-wide staggered rollout. Early findings from the first three campuses to adopt the expanded model indicate that the program continues to produce meaningful gains in persistence and credit accumulation even when operated at scale. These effects, though somewhat smaller in magnitude than those observed in the initial randomized trial, suggest that the model's core components can be maintained as it expands to larger and more diverse student populations. Together, the experimental and early scale-up evidence show that comprehensive, relationship-based student support programs can be both effective and sustainable when implemented through a nonprofit partnership model. More broadly, the success of OMD underscores the potential for locally developed, community-embedded organizations to complement institutional efforts such as CUNY's ASAP, offering a scalable framework for improving college completion and advancing economic mobility among community students nationwide.

VI Exhibits

VI.A Tables

TABLE 1
Balance Table

	N	Control	Treatment	Difference	P-Value	Adjusted Difference
Pell Eligible	4,263	0.70	0.72	0.02	0.36	0.01
Female	4,263	0.62	0.61	-0.01	0.83	0.00
Black	4,263	0.40	0.43	0.03	0.71	0.00
Asian	4,263	0.05	0.05	0.00	0.77	0.00
Hispanic	4,263	0.45	0.41	-0.04	0.28	0.01
Star Scholar	4,263	0.37	0.34	-0.03	0.74	0.00
U.S. Citizen	4,263	0.90	0.90	0.00	0.84	0.00
Married	4,263	0.03	0.04	0.00	0.51	0.00
Age	4,263	20.67	21.74	1.07	0.99	0.00
Employed Full-Time	3,701	0.02	0.03	0.01	0.54	0.00

NOTES: This table reports baseline covariate balance between applicants randomly assigned to receive an offer to participate in One Million Degrees (Treatment) and applicants not offered the program (Control), restricting to individuals with a non-missing Social Security number (required to link to Illinois UI wage records). Columns 2–3 report group means; Difference is the unadjusted mean difference (Treatment Control). P-values are from regressions of each baseline characteristic on treatment assignment controlling for randomization strata indicators, with standard errors clustered by randomization strata. The final column reports the corresponding strata-adjusted mean difference (in the original units; percentage-point differences for indicator variables and years for age). Sample sizes may vary across rows due to missing baseline covariate information.

TABLE 2
TOT and ITT Effects on College Outcomes for Full Sample

Outcome	N	Control Mean	Adjusted Treatment Mean	ITT	Treated	Control Complier Mean	Adjusted Taker Mean	TOT
Within 1 Year								
Ever Enrolled	4,878	0.71	0.74	0.04**	913	0.80	0.92	0.12**
				(0.01)				(0.05)
Ever Enrolled 2-Year	4,878	0.56	0.61	0.05**	913	0.76	0.92	0.16**
				(0.02)				(0.07)
Ever Enrolled Full Time	4,878	0.47	0.52	0.04***	913	0.64	0.78	0.14***
				(0.01)				(0.04)
Within 3 Years								
Ever Enrolled 4-Year	4,878	0.34	0.33	-0.01	913	0.40	0.38	-0.02
				(0.01)				(0.05)
Forward Transfer Or Degree	4,878	0.30	0.32	0.02	913	0.56	0.61	0.05
				(0.01)				(0.04)
Earned Any Degree	4,878	0.25	0.27	0.02**	913	0.48	0.55	0.06**
				(0.01)				(0.03)
Within 8 Years								
Ever Enrolled 4-Year	4,257	0.43	0.43	0.00	748	0.49	0.50	0.00
				(0.01)				(0.05)
Earned Associate Degree	4,257	0.27	0.29	0.02**	748	0.47	0.55	0.08**
				(0.01)				(0.04)
Earned Bachelor Degree	4,257	0.19	0.20	0.02	748	0.21	0.28	0.06
				(0.01)				(0.04)
Earned Any Degree	4,257	0.38	0.40	0.03**	748	0.55	0.63	0.09**
				(0.01)				(0.04)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE 3
TOT Effects on College Outcomes for High School and Continuing Community College Students

	High School Students				Community College Students				
Outcome	N Treated	Control Complier Mean	Adjusted Taker Mean	TOT	N Treated	Control Complier Mean	Adjusted Taker Mean	TOT	Difference
Within 1 Year									
Ever Enrolled Any College	237	0.52	0.92	0.40***	676	0.92	0.92	0.00	0.40***
				(0.11)				(0.04)	(0.12)
Ever Enrolled in 2-Year	237	0.39	0.92	0.52***	676	0.92	0.92	0.00	0.53***
				(0.17)				(0.04)	(0.17)
Ever Enrolled Full Time	237	0.46	0.78	0.32***	676	0.72	0.78	0.06	0.27**
				(0.10)				(0.04)	(0.10)
Within 3 Years									
Ever Enrolled 4-Year	237	0.19	0.16	-0.03	676	0.48	0.45	-0.03	0.00
				(0.10)				(0.05)	(0.11)
Ever Forward Transfer or Degree	237	0.23	0.39	0.16**	676	0.69	0.69	0.00	0.16*
				(0.07)				(0.04)	(0.08)
Ever Earned Any Degree	237	0.22	0.34	0.12**	676	0.58	0.62	0.03	0.09
				(0.06)				(0.04)	(0.07)
Within 8 Years									
Ever Enrolled 4-Year	237	0.31	0.35	0.04	511	0.59	0.56	-0.02	0.07
				(0.10)				(0.04)	(0.11)
Ever Earned Associate Degree	237	0.28	0.41	0.13**	511	0.57	0.62	0.05	0.08
				(0.05)				(0.05)	(0.07)
Ever Earned Bachelor's Degree	237	0.07	0.19	0.12	511	0.29	0.32	0.02	0.10
				(0.08)				(0.04)	(0.09)
Ever Earned Any Degree	237	0.33	0.49	0.16***	511	0.66	0.70	0.04	0.13
				(0.06)				(0.04)	(0.08)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE 4
ITT Effects on College Outcomes for High School and Continuing Community College Students

	High School Students				Community College Students				
Outcome	N	Control Mean	Adjusted Treatment Mean	ITT	N	Control Mean	Adjusted Treatment Mean	ITT	Difference
Within 1 Year									
Ever Enrolled in Any College	2,533	0.64	0.71	0.07***	2,345	0.81	0.80	0.00	0.07***
				(0.02)				(0.02)	(0.03)
Ever Enrolled 2-Year	2,533	0.40	0.50	0.10***	2,345	0.79	0.79	0.00	0.10***
				(0.03)				(0.02)	(0.04)
Ever Enrolled Full Time	2,533	0.42	0.47	0.06***	2,345	0.56	0.59	0.03	0.03
				(0.02)				(0.02)	(0.03)
Within 3 Years									
Ever Enrolled 4-Year	2,533	0.31	0.31	0.00	2,345	0.37	0.36	-0.01	0.01
				(0.02)				(0.02)	(0.03)
Ever Forward Transfer or Degree	2,533	0.15	0.18	0.03**	2,345	0.53	0.53	0.00	0.03
				(0.01)				(0.02)	(0.02)
Ever Earned Any Degree	2,533	0.11	0.13	0.02**	2,345	0.47	0.48	0.02	0.01
				(0.01)				(0.02)	(0.02)
Within 8 Years									
Ever Enrolled in 4-Year	2,533	0.39	0.39	0.01	1,724	0.51	0.50	-0.01	0.02
				(0.02)				(0.02)	(0.03)
Ever Earned Associate Degree	2,533	0.16	0.18	0.02**	1,724	0.49	0.51	0.02	0.00
				(0.01)				(0.02)	(0.02)
Ever Earned Bachelor's Degree	2,533	0.14	0.16	0.02	1,724	0.27	0.28	0.01	0.01
				(0.01)				(0.02)	(0.02)
Ever Earned Any Degree	2,533	0.28	0.31	0.03***	1,724	0.58	0.60	0.02	0.01
				(0.01)				(0.02)	(0.02)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed for which number of years.

TABLE 5
TOT and ITT Effects on Labor Market Outcomes for Full Sample

Outcome	N	Control Mean	Adjusted Treatment Mean	ITT	Treated	Control Complier Mean	Adjusted Taker Mean	TOT
Within 3 Years								
Enrolled Full Time or Working Full Time	4,263	0.55	0.58	0.03**	825	0.55	0.65	0.10**
				(0.01)				(0.05)
Working a Stable Job	4,263	0.59	0.61	0.02	825	0.53	0.59	0.06
				(0.01)				(0.05)
Yearly Wage	4,263	$12,574.80	$13,178.90	604.11	825	$11,617.40	$13,486.29	$1,868.89
				($459.53)				($1,415.07)
Within 6 Years								
Enrolled Full Time or Working Full Time	4,263	0.60	0.62	0.03	825	0.57	0.66	0.09
				(0.02)				(0.06)
Working a Stable Job	4,263	0.62	0.64	0.02	825	0.60	0.67	0.07
				(0.02)				(0.05)
Yearly Wage	4,263	$24,040.89	$25,484.62	$1,443.72	825	$24,335.27	$28,801.62	$4,466.35
				(961.5)				(3,061.58)
Within 7 Years								
Enrolled Full Time or Working Full Time	3,701	0.62	0.66	0.04**	672	0.58	0.71	0.13**
				(0.02)				(0.06)
Working a Stable Job	3,701	0.62	0.65	0.04**	672	0.57	0.69	0.12**
				(0.01)				(0.06)
Yearly Wage	3,701	$27,898.15	$29,470.53	$1,572.38	672	$28,980.64	$34,065.85	$5,085.20
				(1,059.93)				(3,659.38)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE 6
TOT Effects on Labor Market Outcomes for High School and Continuing Community College Students

	High School Students				Community College Students				
Outcome	N Treated	Control Complier Mean	Adjusted Taker Mean	TOT	N Treated	Control Complier Mean	Adjusted Taker Mean	TOT	Difference
Within 3 Years									
Enrolled Full Time or Working Full Time	208	0.36	0.63	0.27***	617	0.63	0.66	0.02	0.25**
				(0.09)				(0.05)	(0.10)
Working a Stable Job	208	0.48	0.63	0.15	617	0.55	0.58	0.03	0.13
				(0.10)				(0.05)	(0.11)
Yearly Wage	208	$8,151.82	$11,920.25	$3,768.43	617	$12,990.80	$14,053.53	$1,062.73	$2,724.78
				($2,896.48)				($1,557.10)	($3,289.66)
Within 6 Years									
Enrolled Full Time or Working Full Time	208	0.32	0.68	0.36**	617	0.69	0.65	-0.03	0.40***
				(0.14)				(0.05)	(0.15)
Working a Stable Job	208	0.49	0.73	0.24**	617	0.65	0.65	0.00	0.25**
				(0.10)				(0.06)	(0.12)
Yearly Wage	208	$20,136.52	$27,035.49	$6,898.97	617	$26,164.43	$29,450.22	$3,285.79	$3,876.71
				($6,639.24)				($3,355.61)	($7,433.34)
Within 7 Years									
Enrolled Full Time or Working Full Time	208	0.39	0.73	0.35**	464	0.69	0.7	0.00	0.35**
				(0.14)				(0.04)	(0.15)
Working a Stable Job	208	0.41	0.75	0.34***	464	0.67	0.66	-0.01	0.35***
				(0.11)				(0.05)	(0.12)
Yearly Wage	208	$19,417.82	$33,664.00	$14,246.19*	464	$34,738.38	$34,349.41	-$388.97	$14,937.22*
				($7,691.70)				($3,456.48)	($8,470.64)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

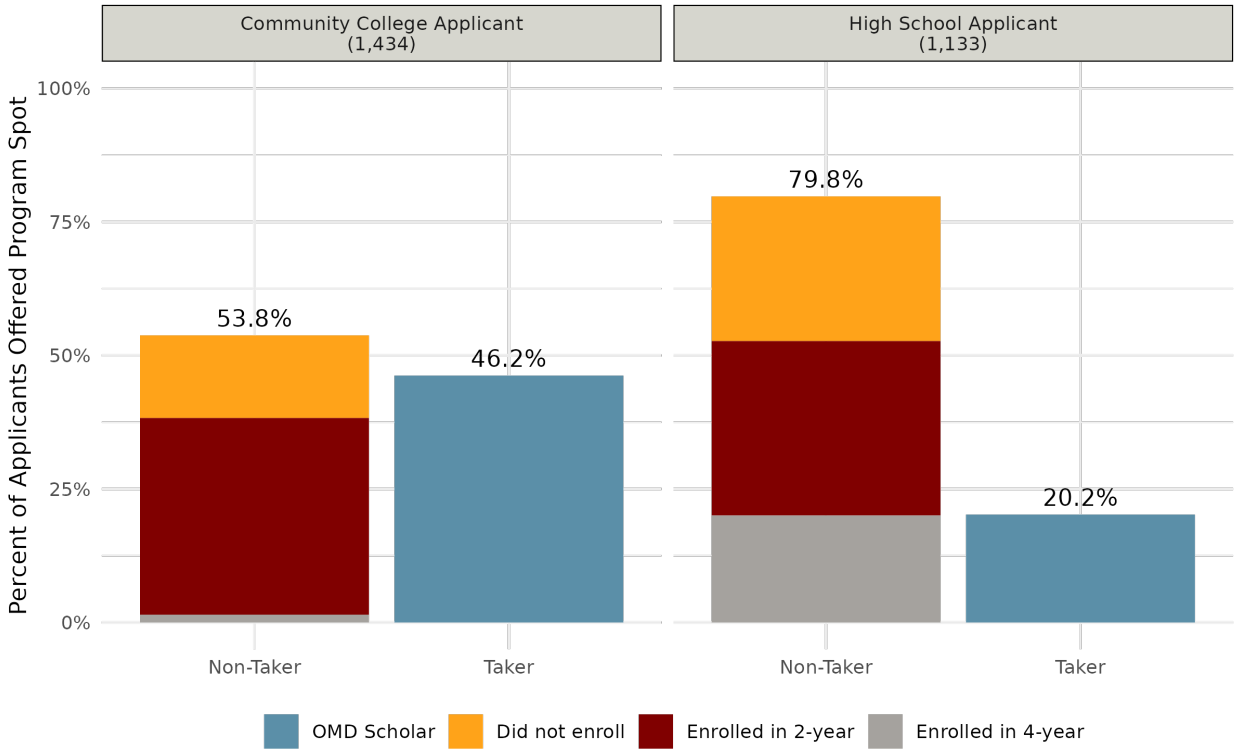
TABLE 7
ITT Effects on Labor Market Outcomes for High School and Continuing Community College Students

	High School Students				Community College Students				
Outcome	N	Control Mean	Adjusted Treatment Mean	ITT	N	Control Mean	Adjusted Treatment Mean	ITT	Difference
Within 3 Years									
Enrolled Full Time or Working Full Time	2,137	0.51	0.56	0.05***	2,126	0.6	0.61	0.01	0.04
				(0.02)				(0.02)	(0.03)
Working a Stable Job	2,137	0.60	0.62	0.03	2,126	0.58	0.59	0.01	0.02
				(0.02)				(0.02)	(0.03)
Yearly Wage	2,137	$11,663.25	$12,396.85	$733.6	2,126	$13,888.22	$14,369.65	$481.42	$253.63
				($568.42)				($703.28)	($896.67)
Within 6 Years									
Enrolled Full Time or Working Full Time	2,137	0.57	0.64	0.07***	2,126	0.63	0.62	-0.02	0.09**
				(0.02)				(0.02)	(0.03)
Working a Stable Job	2,137	0.62	0.67	0.05**	2,126	0.62	0.62	0	0.05
				(0.02)				(0.02)	(0.03)
Yearly Wage	2,137	$22,532.25	$23,875.27	$1,343.02	2,126	$26,214.68	$27,703.17	$1,488.49	-$91.54
				($1,211.32)				($1,497.03)	($1,914.67)
Within 7 Years									
Enrolled Full Time or Working Full Time	2,137	0.61	0.67	0.07***	1,564	0.66	0.66	0.00	0.07**
				(0.02)				(0.02)	(0.03)
Working a Stable Job	2,137	0.61	0.68	0.07***	1,564	0.62	0.62	0.00	0.07**
				(0.02)				(0.02)	(0.03)
Yearly Wage	2,137	$25,908.60	$28,681.91	$2,773.30**	1,564	$31,701.71	$31,520.56	-$181.15	$3,011.20
				($1,323.21)				(1,613.61)	(2,076.65)

NOTES: Clustered robust standard errors in parentheses. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

VI.B Figures

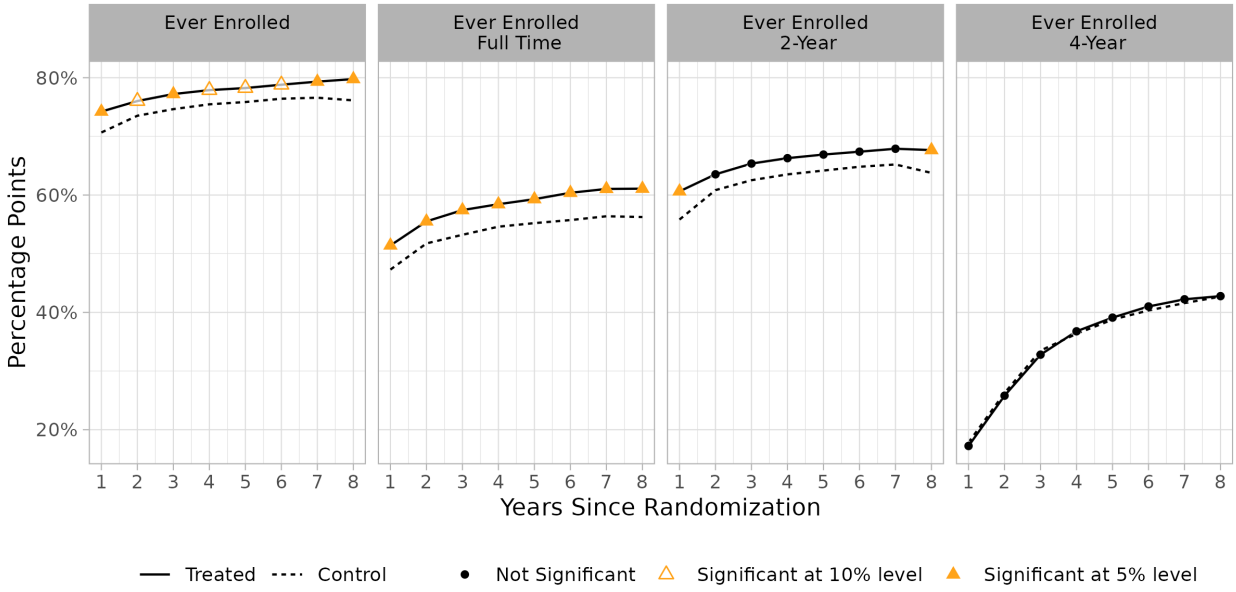
FIGURE 1
Take-up Rates by Applicant Type



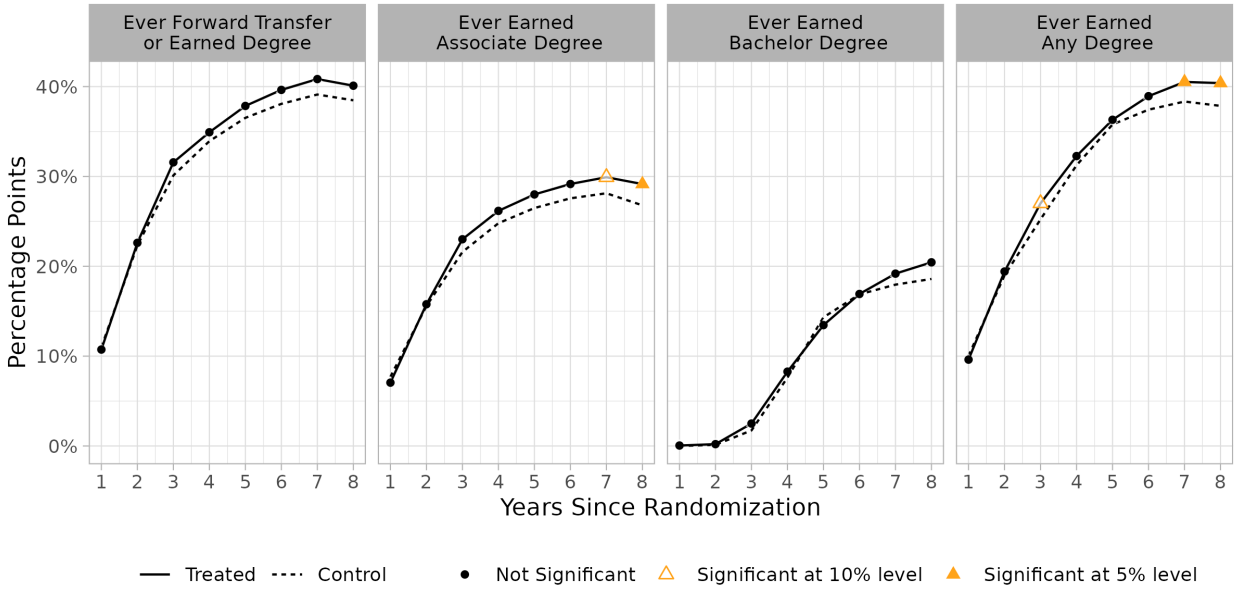
NOTE: This figure shows the take-up rate for community college and high school applicants who were offered a spot in the OMD program. The sample size indicated in parentheses represents the number of students offered a spot.

FIGURE 2
ITT Effects on College Enrollment and Degree Outcomes By Year

(a) Enrollment

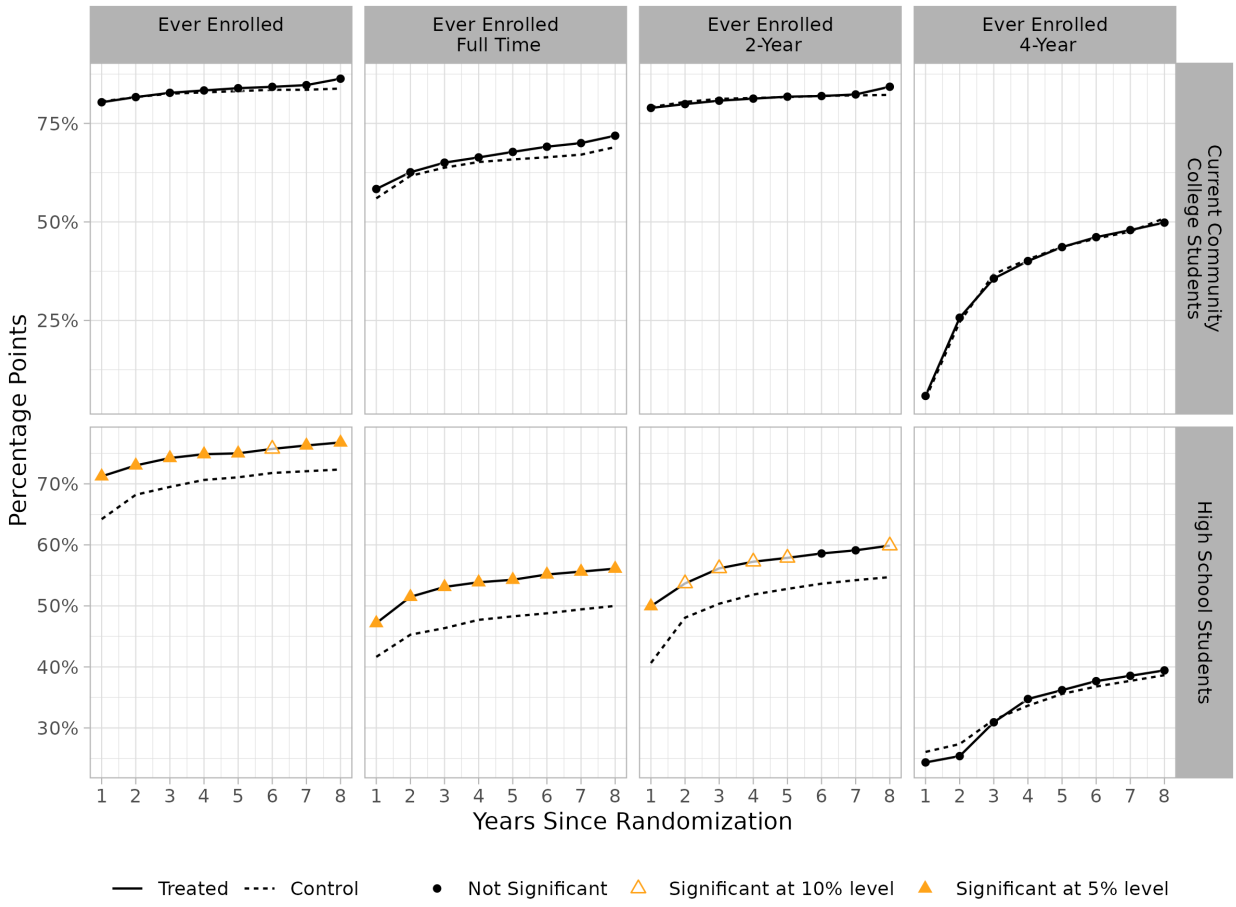


(b) Degree Completion



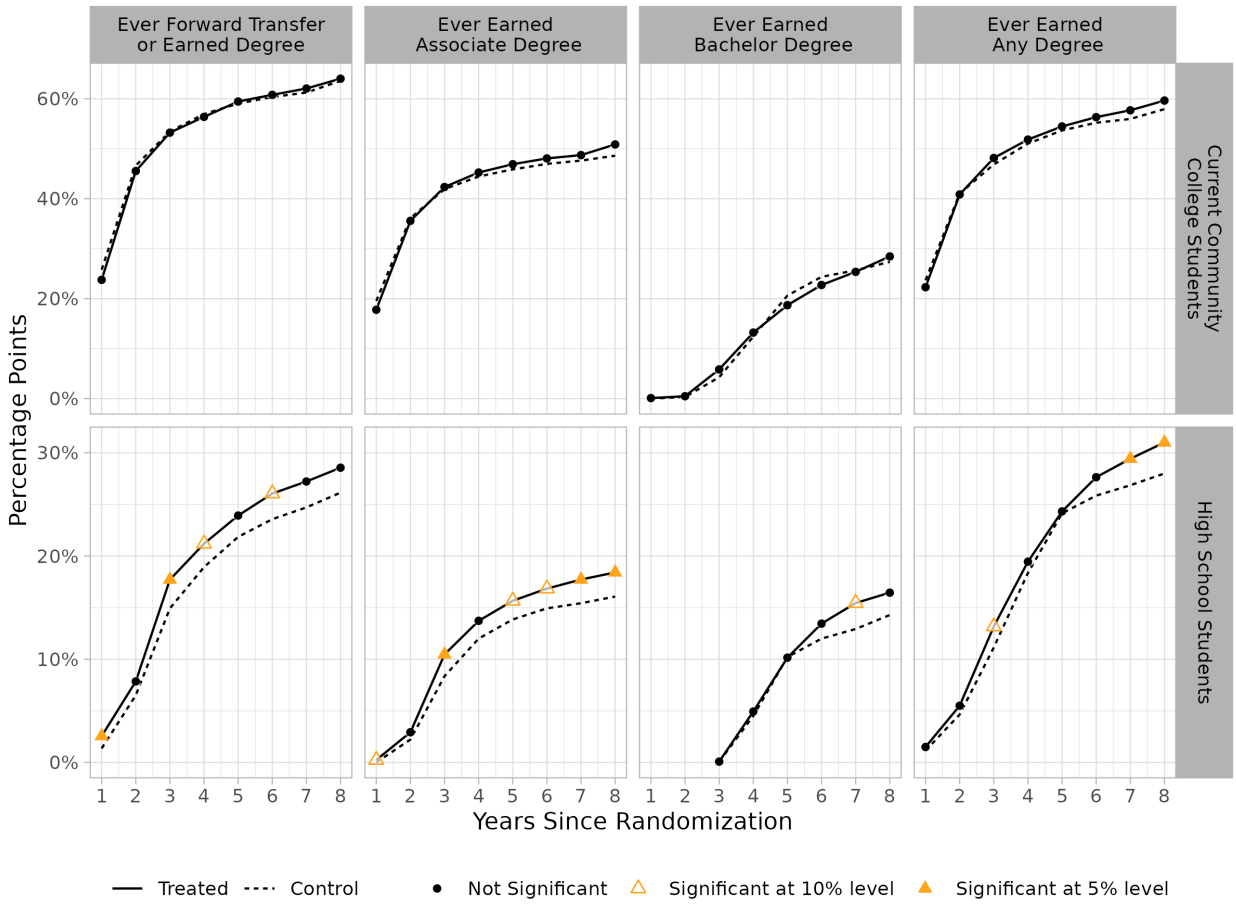
NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

FIGURE 3
ITT Effects on Enrollment Outcomes by Year and Applicant Type



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

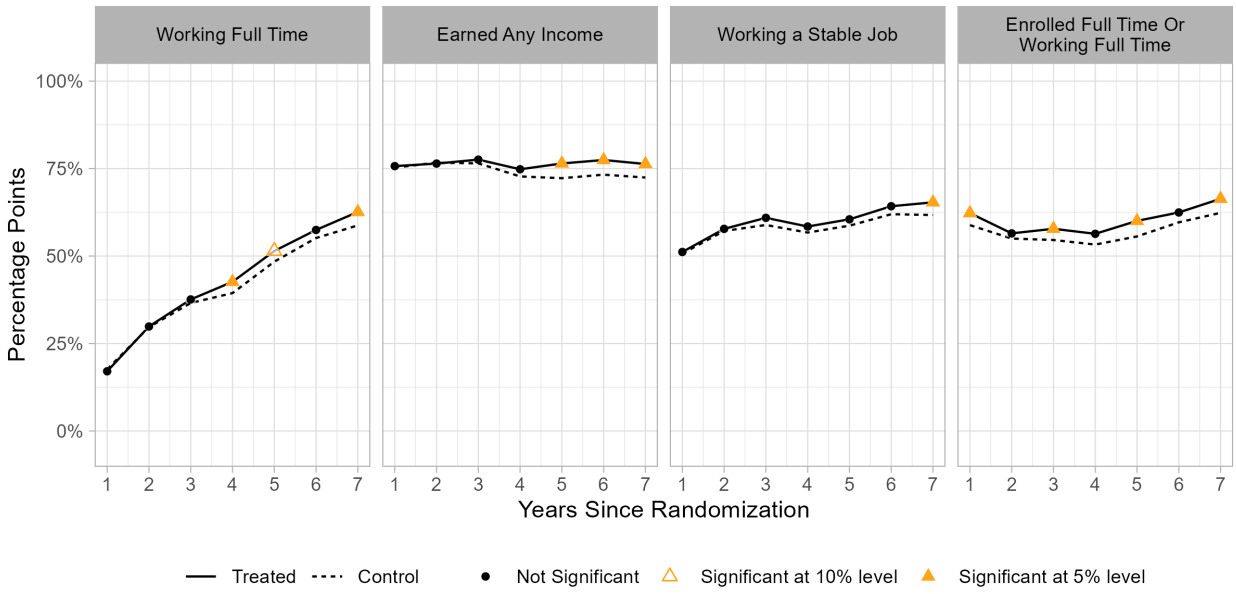
FIGURE 4
ITT Effects on Degree Outcomes by Year and Applicant Type



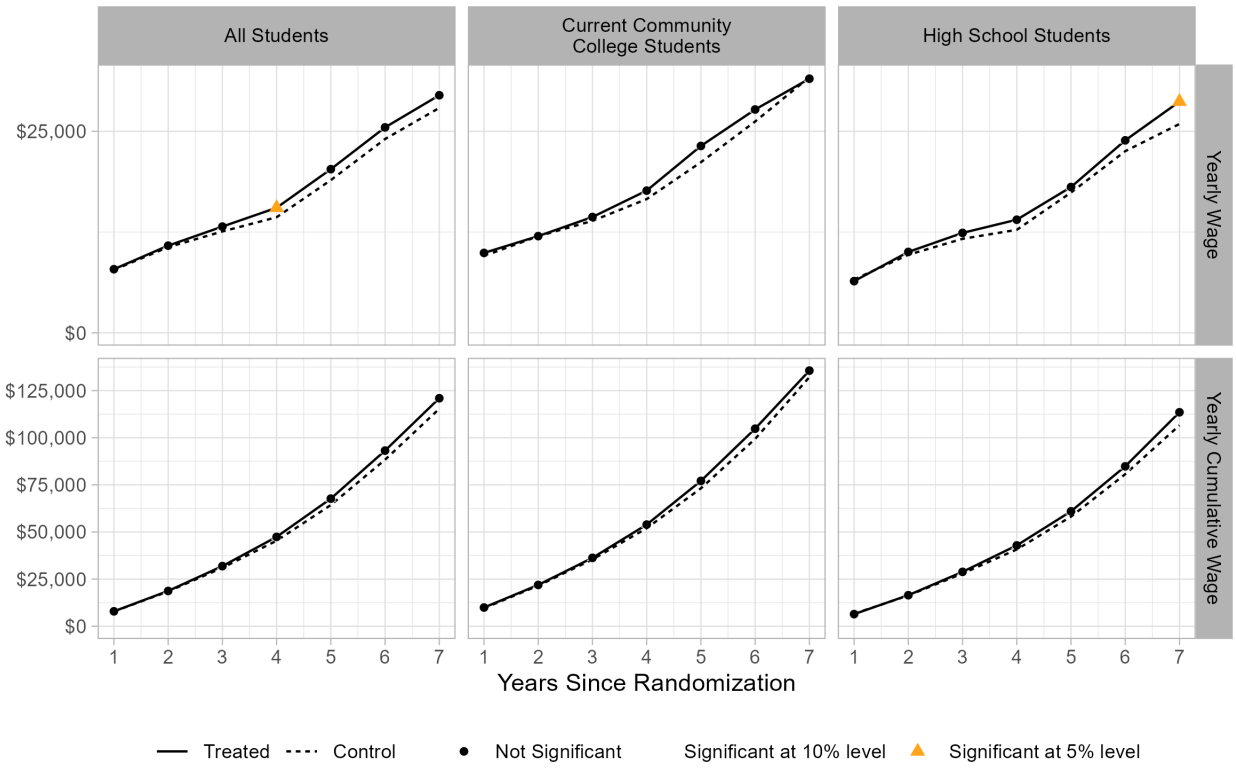
NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

FIGURE 5
ITT Effects on Labor Market Outcomes by Year

(a) Labor Market Participation

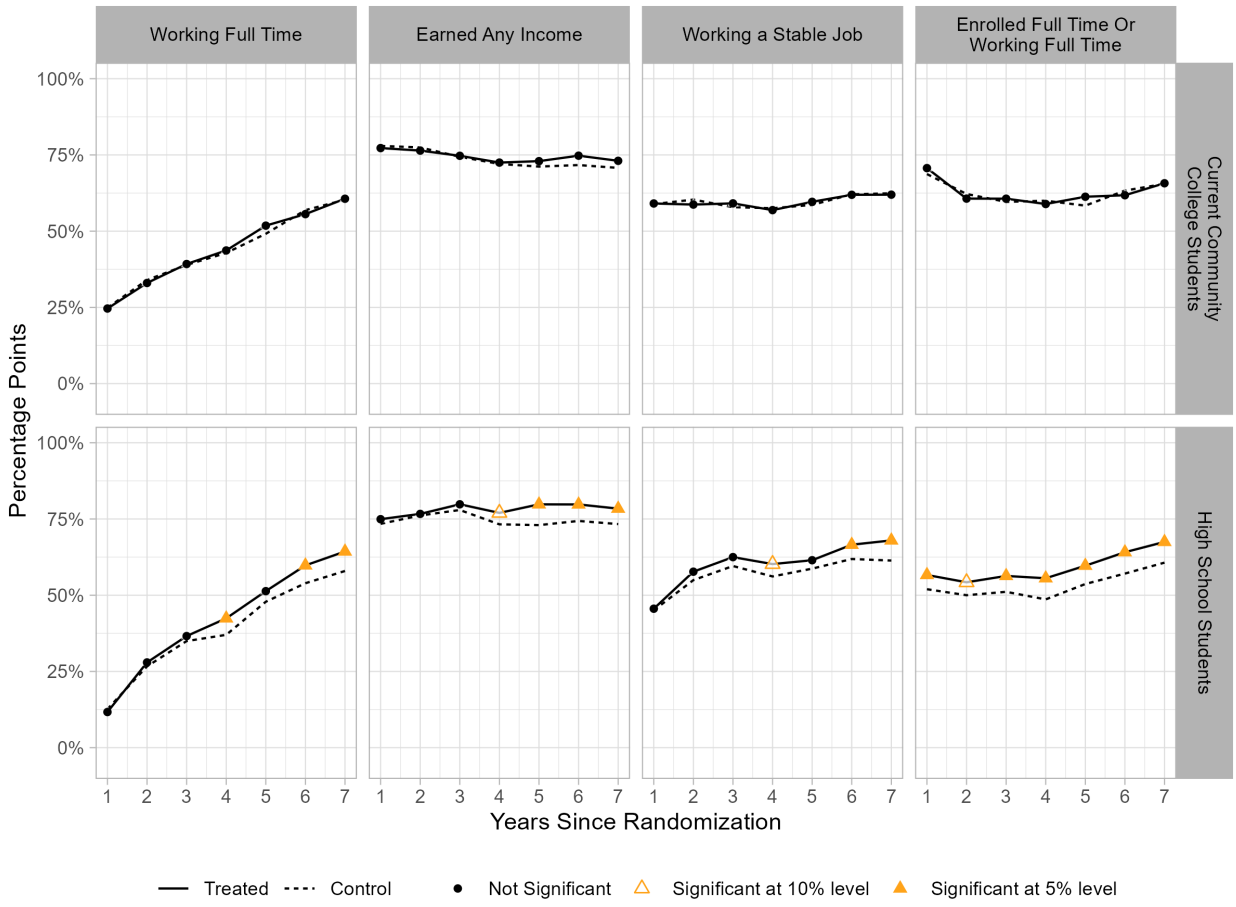


(b) Wages



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

FIGURE 6
ITT Effects on Labor Market Outcomes by Year and Applicant Type



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

References

Angrist, Joshua D, Guido W Imbens, and Donald B Rubin. 1996. "Identification of causal effects using instrumental variables." Journal of the American statistical Association, 91(434): 444–455.

Bailey, Thomas R, Shanna Smith Jaggars, and Davis Jenkins. 2015. Redesigning America's community colleges: A clearer path to student success. Harvard University Press.

Bloom, Howard S. 1984. "Accounting for no-shows in experimental evaluation designs." Evaluation review, 8(2): 225–246.

Brockman, Stacey L, Jasmina Camo-Biogradlija, Alyssa Ratledge, Rebekah O'Donoghue, Micah Y Baum, and Brian Jacob. 2025. "Forging a path to college persistence: An experimental evaluation of the Detroit Promise Path program." Educational Evaluation and Policy Analysis, 47(2): 549–576.

Carruthers, Celeste K, William F Fox, and Christopher Jepsen. 2023. "What Knox Achieved: Estimated Effects of Tuition-free Community College on Attainment and Earnings." Journal of Human Resources.

Community College Research Center. 2021. "An Introduction to Community Colleges and Their Students." https://ccrc.tc.columbia.edu/wp-content/uploads/2021/07/introduction-community-c Policy Fact Sheet.

Dynarski, Susan, and Judith Scott-Clayton. 2013. "Financial aid policy: Lessons from research."

Dynarski, Susan M, Steven W Hemelt, and Joshua M Hyman. 2015. "The missing manual: Using National Student Clearinghouse data to track postsecondary outcomes." Educational Evaluation and Policy Analysis, 37(1_suppl): 53S–79S.

Evans, William N, Melissa S Kearney, Brendan Perry, and James X Sullivan. 2020. "Increasing community college completion rates among low-income students: Evidence from a randomized controlled trial evaluation of a case-management intervention." Journal of Policy Analysis and Management, 39(4): 930–965.

Harrison, Emileigh, Kelly Hallberg, Elijah Ruiz, and Marvin Slaughter. 2026. "The Effect of Merit-Based Free Community College." Working paper.

Heller, Sara B, Anuj K Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, and Harold A Pollack. 2017. "Thinking, fast and slow? Some field experiments to reduce crime and dropout in Chicago." The Quarterly Journal of Economics, 132(1): 1–54.

Hill, Colin, Kayla Warner, and Colleen Sommo. 2025. "From Learning to Earning: Eight-Year Findings from the ASAP Ohio Demonstration." MDRC.

Katz, Lawrence F, Jeffrey R Kling, and Jeffrey B Liebman. 2001. "Moving to opportunity in Boston: Early results of a randomized mobility experiment." The quarterly journal of economics, 116(2): 607–654.

Levesque, Elizabeth Mann. 2018. "Improving community college completion rates by addressing structural and motivational barriers." Brookings Institution.

Miller, Cynthia, and Michael J Weiss. 2022. "Increasing community college graduation rates: A synthesis of findings on the ASAP model from six colleges across two states." Educational Evaluation and Policy Analysis, 44(2): 210–233.

Ratledge, Alyssa, Colleen Sommo, Dan Cullinan, Rebekah O'Donoghue, Marco Lepe, and Jasmina Camo-Biogradlija. 2021. "Motor City Momentum: Three Years of the Detroit Promise Path Program for Community College Students." MDRC.

Scrivener, Susan, Michael J Weiss, Alyssa Ratledge, Timothy Rudd, Colleen Sommo, and Holly Fresques. 2015. "Doubling graduation rates: Three-year effects of CUNY's Accelerated Study in Associate Programs (ASAP) for developmental education students." MDRC Report.

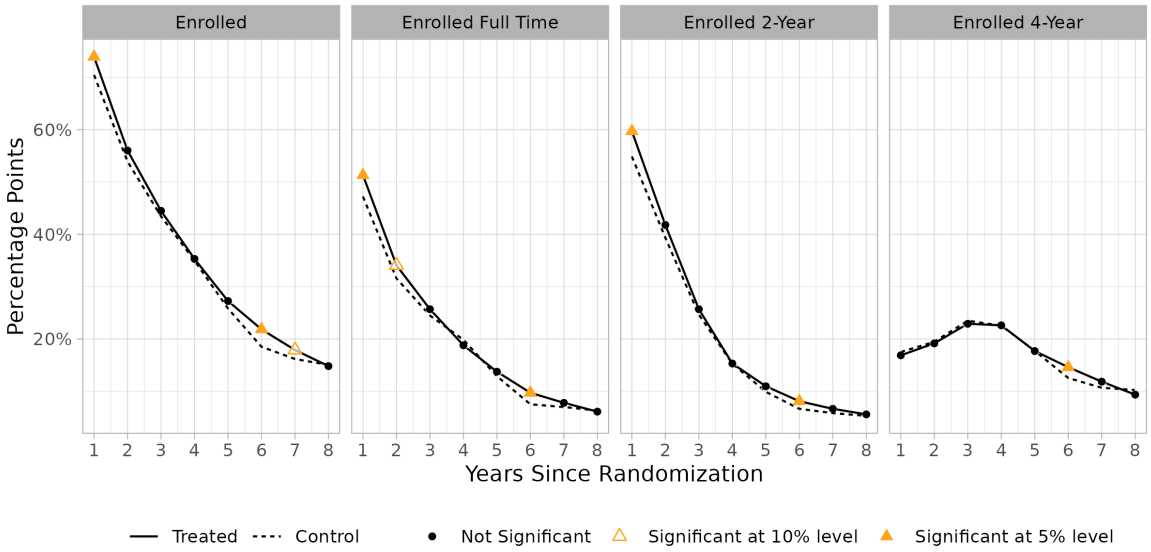
The Hope Center for College, Community, and Justice. 2025. "2023-2024 Student Basic Needs Survey Report." Accessed September 26, 2025.

Weiss, Michael J, Alyssa Ratledge, Colleen Sommo, and Himani Gupta. 2019. "Supporting community college students from start to degree completion: Long-term evidence from a randomized trial of CUNY's ASAP." American Economic Journal: Applied Economics, 11(3): 253–297.

A Appendix

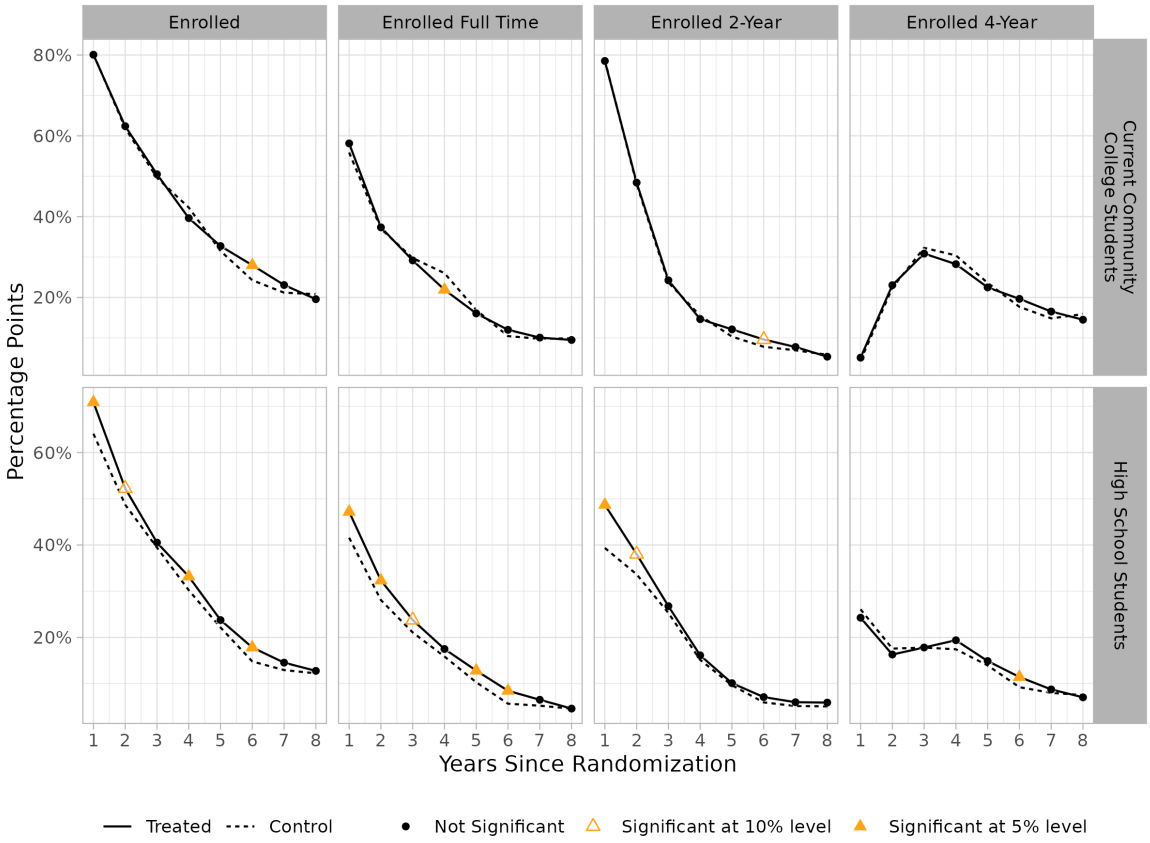
A.A Appendix Figures

FIGURE A.1
ITT Effects on Yearly College Enrollment



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. The treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

FIGURE A.2
ITT Effects on Yearly College Enrollment By Applicant Type



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. The treated line shows the estimated effect of being offered a spot in the program (ITT). Control line shows the outcome mean for students not offered a spot.

A.B Appendix Tables

TABLE A.1
Data Availability by Cohort

	Number of Years Observed Post-Randomization							
Cohort	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
2016	●	●	●	●	●	●	●	●
2017	●	●	●	●	●	●	●	○
2018	●	●	●	●	●	●	○	

Note: This figure illustrates the number of years after randomization for which outcome data are available (e.g., college enrollment, degree attainment, wages). College outcomes are observed through October 8, 2025, and labor market outcomes through June 30, 2024. For each cohort–year combination, we use the symbol ● to indicate that both college and labor market outcomes are observed, and the symbol ○ to indicate that only college outcomes and not labor market outcomes are observed.

TABLE A.2
ITT Effects on College Outcomes by Years Since Randomization

	Years Since Randomization							
Outcome	1	2	3	4	5	6	7	8
Ever Enrolled	0.04**	0.03*	0.03**	0.02*	0.02*	0.02*	0.03**	0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.71]	[0.74]	[0.75]	[0.75]	[0.76]	[0.76]	[0.77]	[0.76]
Ever Enrolled Full Time	0.04***	0.04**	0.04***	0.04***	0.04***	0.05***	0.05***	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.47]	[0.52]	[0.53]	[0.55]	[0.55]	[0.56]	[0.56]	[0.56]
Ever Enrolled 2-Year	0.05**	0.03	0.03	0.03	0.03	0.03	0.03	0.04**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
	[0.56]	[0.61]	[0.63]	[0.64]	[0.64]	[0.65]	[0.65]	[0.64]
Ever Enrolled 4-Year	-0.01	0.00	-0.01	0.00	0.00	0.01	0.01	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.18]	[0.26]	[0.33]	[0.36]	[0.39]	[0.40]	[0.42]	[0.43]
Ever Forward Transfer or Degree	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.11]	[0.22]	[0.30]	[0.34]	[0.37]	[0.38]	[0.39]	[0.38]
Ever Earned Associate Degree	-0.01	0.00	0.01	0.01	0.02	0.02	0.02*	0.02**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.08]	[0.16]	[0.22]	[0.25]	[0.26]	[0.28]	[0.28]	[0.27]
Ever Earned Bachelor Degree	0.00	0.00	0.01	0.01	-0.01	0.00	0.01	0.02
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.00]	[0.00]	[0.02]	[0.08]	[0.14]	[0.17]	[0.18]	[0.19]
Ever Earned Any Degree	0.00	0.00	0.02*	0.01	0.01	0.02	0.02**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[0.10]	[0.19]	[0.25]	[0.31]	[0.36]	[0.37]	[0.38]	[0.38]
N	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,257

Note: Clustered robust standard errors in parentheses. Control mean in brackets. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A.3
TOT Effects on College Outcomes by Years Since Randomization

	Years Since Randomization							
Outcome	1	2	3	4	5	6	7	8
Ever Enrolled	0.11**	0.08*	0.08*	0.08*	0.08*	0.08*	0.09**	0.12***
	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
	[0.80]	[0.83]	[0.84]	[0.84]	[0.85]	[0.85]	[0.84]	[0.80]
Ever Enrolled Full Time	0.13***	0.12**	0.14***	0.12***	0.13***	0.15***	0.15***	0.16***
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
	[0.64]	[0.68]	[0.68]	[0.70]	[0.69]	[0.68]	[0.68]	[0.68]
Ever Enrolled 2-Year	0.15**	0.09	0.09	0.09	0.09	0.08	0.09	0.13*
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)
	[0.76]	[0.83]	[0.82]	[0.83]	[0.83]	[0.83]	[0.83]	[0.79]
Ever Enrolled 4-Year	-0.02	-0.02	-0.02	0.01	0.01	0.02	0.02	0.00
	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
	[0.04]	[0.25]	[0.40]	[0.41]	[0.44]	[0.45]	[0.48]	[0.49]
Ever Forward Transfer Or Degree	-0.01	0.01	0.05	0.03	0.04	0.05	0.06	0.05
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
	[0.24]	[0.47]	[0.56]	[0.61]	[0.63]	[0.63]	[0.63]	[0.63]
Ever Earned Associate Degree	-0.02	0.01	0.05	0.04	0.05	0.05	0.06*	0.08**
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
	[0.19]	[0.36]	[0.44]	[0.48]	[0.49]	[0.50]	[0.50]	[0.47]
Ever Earned Bachelor Degree	0.00	0.00	0.02	0.02	-0.03	0.00	0.04	0.06
	(0.00)	(0.00)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
	[0.00]	[0.00]	[0.02]	[0.10]	[0.21]	[0.23]	[0.22]	[0.21]
Ever Earned Any Degree	-0.01	0.01	0.06*	0.03	0.02	0.05	0.07*	0.09**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
	[0.24]	[0.41]	[0.48]	[0.55]	[0.60]	[0.58]	[0.57]	[0.55]
N	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,257

Note: Clustered robust standard errors in parentheses. Control complier mean in brackets. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A.4
ITT Effects on Labor Market Outcomes by Years Since Randomization

	Years Since Randomization						
Outcome	1	2	3	4	5	6	7
Earned Any Income	0.00	0.00	0.01	0.02	0.04***	0.04***	0.04**
	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
	[0.75]	[0.77]	[0.76]	[0.73]	[0.72]	[0.73]	[0.72]
Working a Stable Job	0.00	0.01	0.02	0.02	0.02	0.02	0.04**
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)
	[0.51]	[0.57]	[0.59]	[0.57]	[0.59]	[0.62]	[0.62]
Enrolled or Working	0.02***	0.01	0.02*	0.03***	0.05***	0.05***	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
	[0.93]	[0.89]	[0.86]	[0.82]	[0.79]	[0.78]	[0.77]
Enrolled Full Time or Working Full Time	0.03**	0.01	0.03**	0.03	0.04***	0.03	0.04**
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
	[0.59]	[0.55]	[0.55]	[0.53]	[0.56]	[0.60]	[0.62]
Yearly Wage	$83.38	$188.8	$604.11	$1,173.84**	$1,358.56	$1,443.72	$1,572.38
	($368.98)	($438.42)	($459.53)	($573.01)	($864.98)	($961.5)	($1,059.93)
	[$7,811.78]	[$10,629.10]	[$12,574.80]	[$14,340.67]	[$18,943.94]	[$24,040.89]	[$27,898.15]
Yearly Cumulative Wage	$83.38	$272.19	$876.3	$2,050.14	$3,408.69	$4,852.42	$5,594.95
	($368.98)	($758.72)	($1,145.48)	($1,640.44)	($2,393.38)	($3,224.23)	($4,292.72)
	[7,811.78]	[$18,440.89]	[$31,015.68]	[$45,356.35]	[$64,300.29]	[$88,341.18]	[$115,366.78]
N	4,263	4,263	4,263	4,263	4,263	4,263	3,701

Note: Clustered robust standard errors in parentheses. Control mean in brackets. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A.5
TOT Effects on Labor Market Outcomes by Years Since Randomization

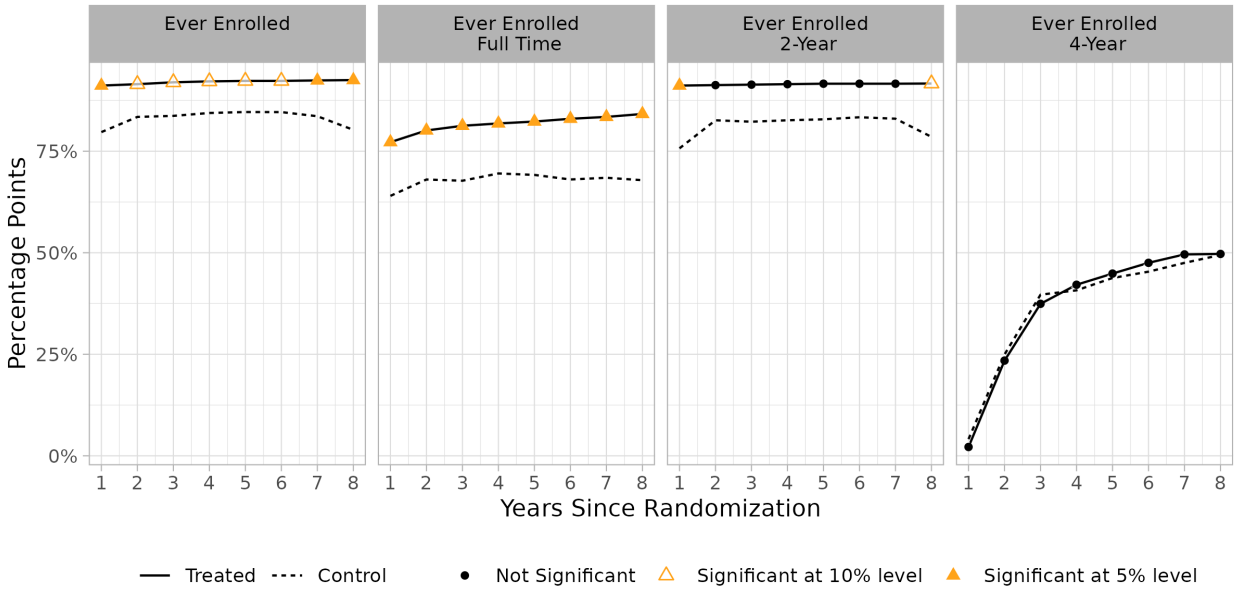
	Years Since Randomization						
Outcome	1	2	3	4	5	6	7
Earned Any Income	0.01	-0.01	0.03	0.06	0.13**	0.13***	0.12**
	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.06)
	[0.78]	[0.80]	[0.73]	[0.69]	[0.63]	[0.65]	[0.64]
Working a Stable Job	0.01	0.02	0.06	0.05	0.06	0.07	0.12**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)
	[0.59]	[0.59]	[0.53]	[0.53]	[0.56]	[0.60]	[0.57]
Enrolled or Working	0.06**	0.02	0.05*	0.10**	0.15***	0.14***	0.13**
	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.05)
	[0.93]	[0.93]	[0.86]	[0.78]	[0.70]	[0.69]	[0.68]
Enrolled Full Time or Working Full Time	0.11**	0.05	0.10**	0.10	0.14**	0.09	0.13**
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.06)	(0.06)
	[0.73]	[0.63]	[0.55]	[0.51]	[0.49]	[0.57]	[0.58]
Yearly Wage	$257.96	$584.09	$1,868.89	$3,631.42**	$4,202.88	$4,466.35	$5,085.20
	($1,139.45)	($1,357.10)	($1,415.07)	($1,740.96)	($2,658.92)	($3,061.58)	($3,659.38)
	[$8,125.14]	[$10,522.62]	[$11,617.40]	[$13,640.43]	[$18,220.89]	[$24,335.27]	[$28,980.64]
Yearly Cumulative Wage	$257.96	$842.05	$2,710.95	$6,342.37	$10,545.25	$15,011.61	$18,094.55
	($1,139.45)	($2,344.63)	($3,534.41)	($5,040.47)	($7,349.56)	($10,005.47)	($14,180.12)
	[$8,125.14]	[$18,647.76]	[$30,265.16]	[$43,905.60]	[$62,126.48]	[$86,461.75]	[$117,229.77]
N	4,263	4,263	4,263	4,263	4,263	4,263	3,701

Note: Clustered robust standard errors in parentheses. Control complier mean in brackets. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. *** p<0.01, ** p<0.05, * p<0.1.

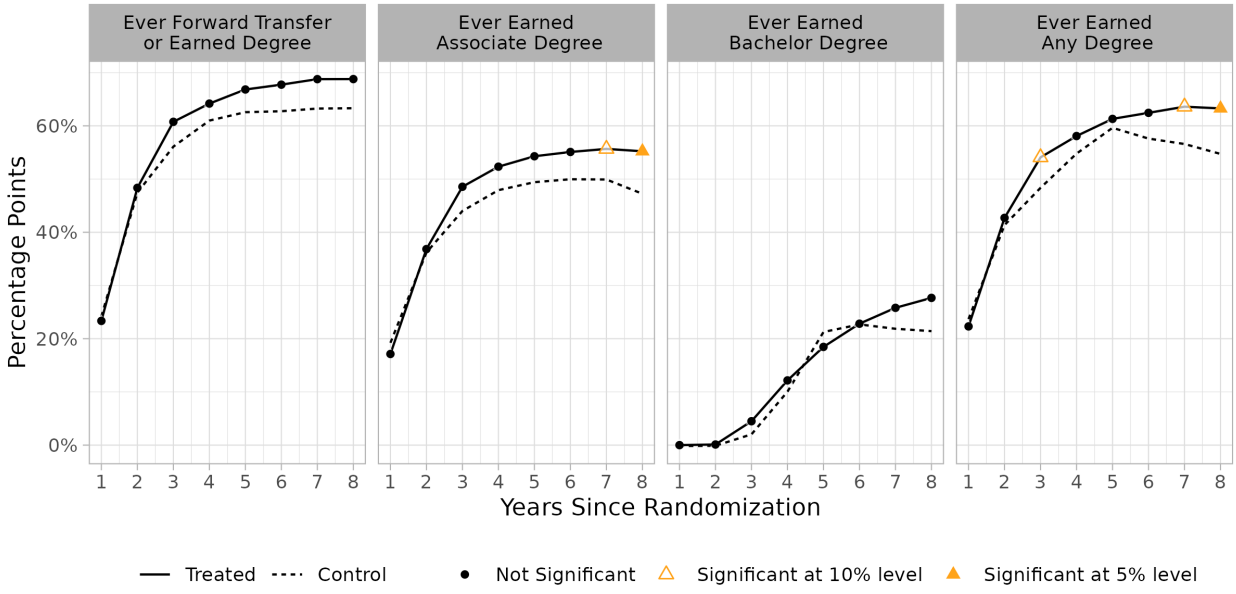
A.C TOT Appendix

FIGURE A.3
TOT Effects on College Enrollment and Degree Outcomes By Year

(a) Enrollment

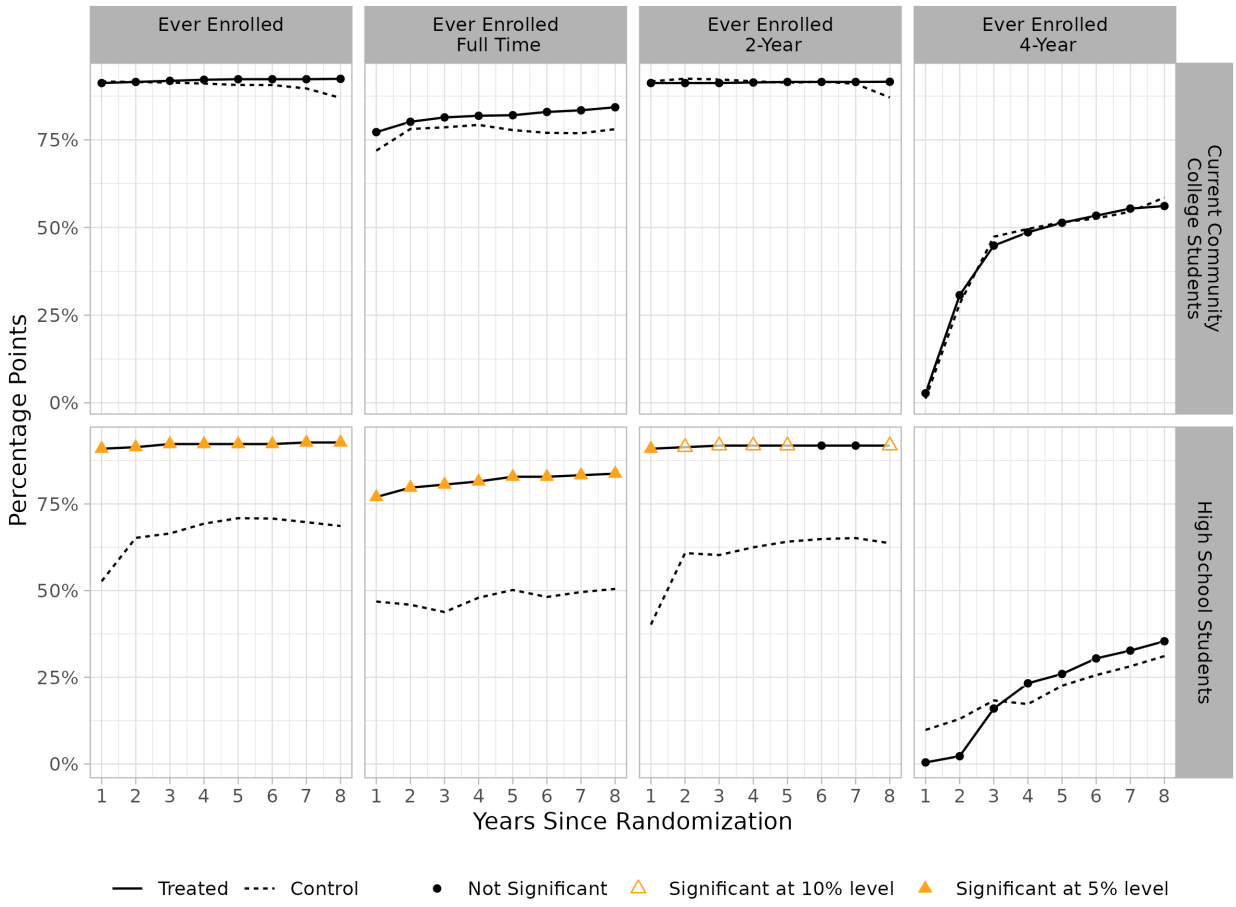


(b) Degree Completion



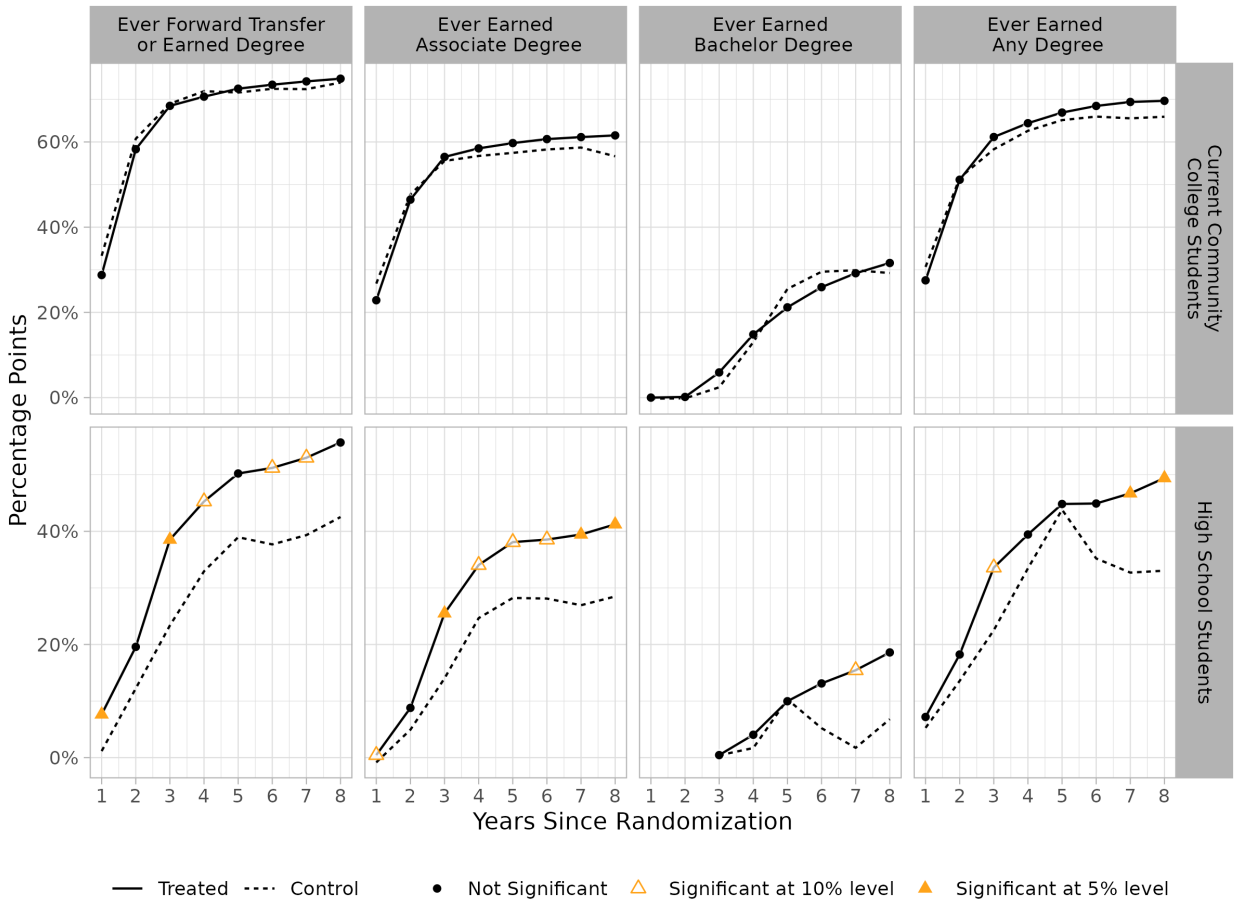
NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated complier treatment effect (TOT). Control line shows the estimated complier control mean.

FIGURE A.4
TOT Effects on Enrollment Outcomes by Year and Applicant Type



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated complier treatment effect (TOT). Control line shows the estimated complier control mean.

FIGURE A.5
TOT Effects on Degree Outcomes by Year and Applicant Type

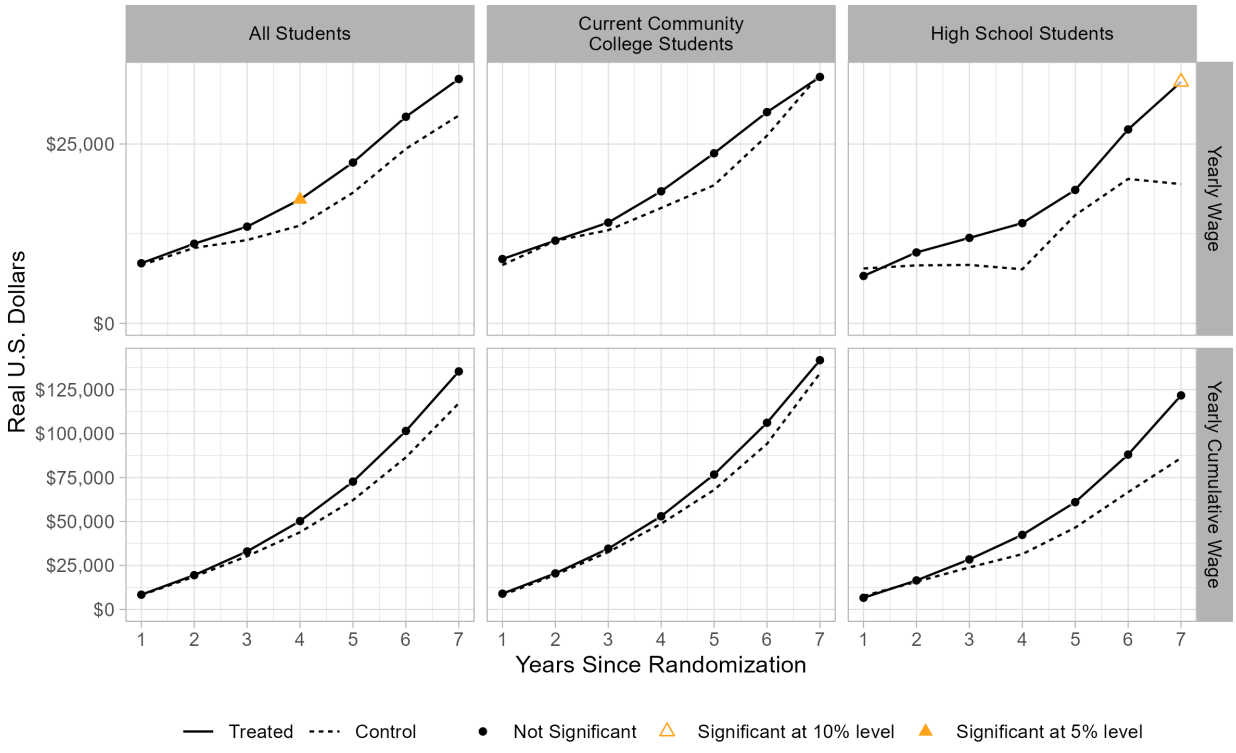


NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated complier treatment effect (TOT). Control line shows the estimated complier control mean.

FIGURE A.6
TOT Effects on Labor Market Outcomes by Year

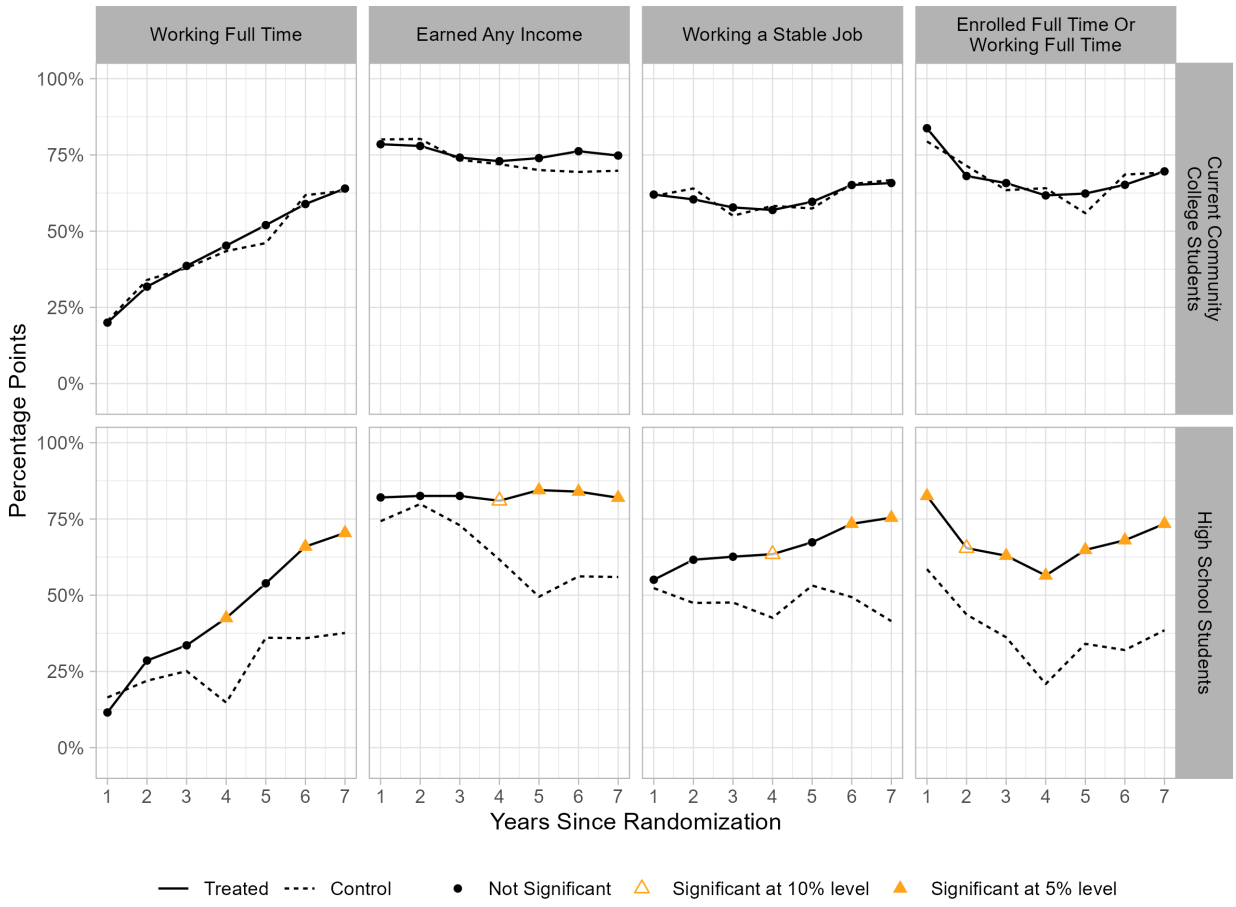
(a) Labor Market Participation

(b) Wages



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated complier treatment effect (TOT). Control line shows the estimated complier control mean.

FIGURE A.7
TOT Effects on Labor Market Outcomes by Year and Applicant Type



NOTE: P-values calculated using clustered robust standard errors. All regressions include randomization block fixed effects. Control covariates include baseline characteristics listed in Table 1. Panel is not balanced; see Appendix Table A.1 for which cohorts can be observed in which years. Treated line shows the estimated complier treatment effect (TOT). Control line shows the estimated complier control mean.