



**Scaling Holistic Supports for Community College Students:
Early Findings from An Impact Evaluation of One Million Degrees Campuswide**

Kelly Hallberg, Ph.D.
Marvin Slaughter
Nhu Nguyen, Ph.D.

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Address correspondence to:

Kelly Hallberg, Ph.D.
Scientific Director and Senior Research Associate
University of Chicago Inclusive Economy Lab and Harris School of Public Policy
773.702.9830
Email: khallberg@uchicago.edu

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Abstract

A growing body of evidence finds that holistic programs designed to address the multiple barriers community college students face to degree attainment hold substantial promise for improving community college completion rates. However, to meaningfully impact outcomes for community college students, these programs will have to be successfully implemented on a much larger scale. This paper presents early findings of an effort to substantially expand One Million Degrees (OMD), an evidence-based program that provides financial, academic, personal, and professional supports to community college students. Based on the promising results from a randomized controlled trial, OMD is partnering with the City Colleges of Chicago (CCC) to substantially increase the reach of OMD services, with the goal of ultimately reaching all new and returning degree-seeking students in the district. Using a difference-in-difference design that takes advantage of the staggered roll-out of the program, we find that OMD campuswide increased CCC enrollment, the number of CCC credits attempted and earned, and fall-to-spring retention. These effects were either marginally significant at the 0.10 level or significant at the traditional 0.05 level. Full-time enrollment and fall-to-fall retention were higher for students who were offered OMD campuswide, but these differences were not significant at traditional levels.

Introduction

Community colleges have the potential to be powerful vehicles for economic mobility. However, the majority of students who enroll in community colleges do not earn a degree within three years (Carnevale et al., 2014; The White House, 2015). A growing research literature demonstrates that providing holistic supports can dramatically improve associate's degree completion (Weiss et al., 2019; Sommo et al., 2018; Evans et al., 2017; Hallberg et al., 2022) but for such programs to translate to real gains in degree attainment, they will need to be implemented at a much larger scale. Thus far, however, comprehensive support programs have not been scaled at the rate one might expect. The original CUNY ASAP program narrowly avoided budget cuts in 2020 (St. Amour, 2020) and two of the three replication sites in Ohio chose to discontinue the program despite its strong outcomes. Likewise, efforts to spur federal investment in these evidence-based programs have been met with limited success (TICAS, 2022).

In Chicago, an innovative partnership between One Million Degrees (OMD) and City Colleges of Chicago (CCC) has the potential to buck this trend. OMD is a non-profit organization that provides financial, academic, personal, and professional supports to community college students. An Inclusive Economy Lab (IEL) study found that the randomized offer of a spot in the OMD program leads to a statistically significant and substantively meaningful increase in community college enrollment, retention, and associate's degree attainment three years after randomization (Hallberg et al., 2022). Based on these promising results, OMD is partnering with CCC to substantially increase the reach of OMD services, with the goal of ultimately reaching all eligible students in the district. To reach more students, the program and the district co-designed an integrated model that draws on key elements of the traditional OMD model, while incorporating new program elements to allow for greater integration between CCC and OMD and accommodate serving a larger number of students. Implementation of the new model (OMD campuswide) got underway during the 2022-2023 school year at one of the seven colleges in the CCC system, Olive-Harvey College, expanded to a second campus, Malcolm X College, during the 2023-2024

school year, and expanded further to Harold Washington College during the 2024-2025 school year. The model has further expanded to Kennedy-King College during the 2025-2026 school year.

We employ a difference-in-difference design to examine the effectiveness of these scale-up efforts. This paper presents the initial findings from this study, specifically evaluating the impact of the expansion on students who were offered a spot in the campuswide program in the 2023-2024 and 2024-2025 school years on early predictors of degree completion (enrollment, credits attempted and earned, and retention). A parallel process evaluation report includes a summary of program implementation in the first two years of the campuswide program (Hallberg et. al, 2024).

We find evidence that OMD campuswide increased CCC enrollment, the number of credits attempted and earned, and fall-to-spring retention. All effects were either marginally significant at the .10 level or statistically significant at the traditional .05 level. In addition, full-time enrollment and fall-to-fall retention were higher for students who were offered OMD campuswide, but these differences were not significant at traditional levels. Program effects were driven by the small share of students who actively engaged in the program.

This paper proceeds as follows: We begin with an overview of the traditional OMD model and a summary of the literature on holistic support programs in community colleges. Next, we provide an overview of the expansion efforts of OMD at CCC. We then present the methodological approach for examining the effectiveness of the OMD campuswide program. Next, we present findings from the 2023-2024 and 2024-2025 school years. The report concludes with a discussion of results and next steps.

Scaling Holistic Supports Programs

Founded in 2006 as the Illinois Education Foundation, OMD provides comprehensive support services to community college students in the Greater Chicago area. Historically, eligibility for and acceptance to the program was contingent upon a student's plan to be enrolled or plan to enroll full-time in a degree-seeking program at one of the community colleges where the program operates. Additionally, students had to be eligible for the Federal Pell Grant or the Chicago Star Scholarship, maintain a grade

point average (GPA) of 2.0 or higher, and have at least one full year remaining until associate degree completion. Students have traditionally been recruited when they were applying to community college (often when still in high school) or once they matriculated on campus.

OMD's signature programming and supports were designed to address the financial, academic, personal, and professional barriers that often impede a student's academic success, retention, and ultimately, graduation. To address these challenges, OMD developed the following "traditional" model: To address financial barriers, scholars were eligible to receive annual performance-based stipends of up to \$1,000, access enrichment grants to offset expenses related to academic and professional development, and in rare instances, obtain last-dollar scholarships to bridge any gap between financial aid and tuition costs. To address personal barriers, OMD program coordinators (PCs) are available to provide relationship-based support for scholars. The 65:1 caseload has allowed PCs to offer targeted, personalized support to scholars. To address academic barriers, PCs complement the role of college advisors and work directly with scholars to fulfill all academic requirements by connecting them with campus academic support services, ensuring timely course registration, and guiding students to pursue specialized programs or transfer to a four-year institution. To address professional barriers, OMD connects scholars with volunteer coaches in their field of interest. Through this mentoring relationship, coaches can offer students individualized support and networking opportunities to advance their career goals. In addition, OMD holds monthly, mandatory workshops where scholars engage with a comprehensive curriculum designed to build and hone their professional competencies.

A growing body of evidence finds that comprehensive programs like OMD that are designed to address the multiple barriers community college students face to degree attainment, hold substantial promise for improving community college completion rates. An RCT of the Stay the Course program at Trinity River Campus of Tarrant County Community College in Texas., which combined comprehensive case management (including academic and personal counseling) with emergency financial assistance, was found (though imprecisely) to increase students' six-term retention and degree attainment in community

college, especially for female students (Evans et al., 2017). Likewise, an RCT of the CUNY ASAP program found the most promising results to date. The ASAP program includes comprehensive personal advising, enhanced tutoring and career advising services, tuition waivers, transportation assistance, and seminars on goal setting and study skills. The study found that ASAP had almost doubled students' graduation rates, reduced the rate at which students stop out of college, and increased credit attainment for participating students (Weiss et al., 2019). These results were replicated in three community colleges in Ohio, where an RCT again found the program led to a doubling of the graduation rate (Sommo et al., 2018).

Researchers at IEL have added to this literature through an RCT of the OMD program. Our study found that the randomized offer of a spot in the OMD program leads to a statistically significant and substantively meaningful increase in community college enrollment, retention, and associate degree attainment three years after randomization. Importantly, our study found that students who applied to OMD while still in high school were less likely to take up the offer of the program than students who were already enrolled in community college, but those high school students who enrolled outperformed their control group peers by a substantially larger margin (Hallberg et al., 2022).

These studies demonstrate that holistic support programs like OMD have the potential to serve as a national model for increasing degree attainment for community college students from low-income backgrounds. However, to date, efforts to expand holistic supports programs to the scale that would be needed to meaningfully reduce the inequities in the U.S. higher education system have fallen short. The original CUNY ASAP program narrowly avoided budget cuts in 2020 (St. Amour, 2020) and two of the three replication sites in Ohio chose to discontinue the program despite its strong outcomes. Likewise, efforts to spur federal investment in these evidence-based programs have been met with limited success (TICAS, 2022).

Based on the promising results from this RCT, OMD is partnering with CCC to substantially increase the reach of OMD services, with the goal of ultimately serving all eligible students in the district. During

the 2022-2023 school year, OMD and CCC piloted a campuswide version of OMD at Olive-Harvey College. Malcolm X College was added in the 2023-2024 school year. Harold Washington College was added in the 2024-2025 school year and expansion to a Kennedy-King College for the 2025-26 school year. After four years of expansion, , the program aims to serve more than 2,900 students annually across all colleges.

One of the primary differences between the traditional and campuswide models is who is eligible to receive OMD services. The changes in program eligibility are intended to increase access and program effectiveness. Table 1 below details the eligibility criteria for both models. Under the original OMD model, students had to submit an application to the program to participate. Under campuswide, all applicants to a CCC campuswide campus who are seeking an associate degree or advanced certificate, have at least a year to degree and agree to enroll in at least nine credits (seven for nursing students). In contrast to the signature model, the campuswide program specifically targets students that are new to the City Colleges of Chicago or have stopped-out and are deciding to re-enroll in order to focus on the group of students most impacted by the program in the RCT.

Table 1. OMD Program Eligibility, Signature and Campuswide Model

OMD Signature	OMD Campuswide
• New or continuing CCC student • Submit an application to OMD • Associate degree seeking • At least one year to degree • Enroll full-time • 2.0 or higher GPA • Pell or STAR eligible	• New, transfer in, or stop in CCC student • Submit an application to CCC • Associate degree or advanced certificate seeking • At least one year to degree • Enroll in at least 9 credits (7 for nursing students) • 2.0 GPA or higher GPA • No financial aid requirements

In addition to adjusting the eligibility program criteria, several changes to the programming itself were made to better integrate OMD and campus services. OMD program coordinators are co-located in offices with CCC advisors, and the team has built a data sharing infrastructure to support real-time sharing of information between the two teams. OMD incentives are also now administered by the district and used to encourage participation in campus activities, such as attending orientation and completing an academic plan with a CCC advisor, as well as participating in OMD-specific activities.

Finally, the volunteer coaching component of the program has been adjusted to accommodate the increasing number of program participants. Rather than the 2:2 matched coach/scholar ratio that was employed in the signature model, five campuswide scholars are paired with two coaches. In the first year, campuswide scholars drop in to coaching and work with whichever coach is available and are not paired with a matched coach until their second year in the program.

Methodology

Ultimately, this study is designed to examine the effect of campuswide OMD on both enrollment in college and degree completion. However, not enough time has passed to assess the impact of the program on degree completion, even for the first cohort of students exposed to the campuswide program. For this reason, this report focuses on enrollment, full-time enrollment, retention, and credits attempted and earned as early predictors of degree completion.

To examine the impact of OMD campuswide on these early outcomes, we employ a difference-in-difference approach with non-implementing campuses serving as comparison groups. This quasi-experimental design is the most suitable analytic method since randomization is not possible. The staggered rollout of the program by campus allows us to evaluate the impact of campuswide OMD by comparing the changes in postsecondary outcomes of students across campuses that have adopted the program and those that have not.

Data and Measures. We draw on administrative data from CCC and OMD. CCC data contains information on all applicants to CCC, including students' enrollment records and course-taking history at the term level from Fall 2015 to Spring 2025. Specifically, the CCC application data contains student demographics, the CCC campuses to which students applied along with the intended enrollment term and intended academic plan and academic program. We use the information on the intended academic plan and academic program to identify the intended degree type. The CCC term files provide enrollment and full-time enrollment records across all CCC campuses and total credits attempted and credits earned at the term level. The CCC course files contain course names with the associated number of credits attempted, credits earned, and final grade at the end of each term. By linking the CCC application files, term files, and course files, we can track enrollment and course-taking patterns for all students who have submitted applications to any CCC campuses during the study period.

From the course files, we identify the total credits attempted and credits earned for each student in each term. We prioritize these measures of credits attempted and credits earned from the course files over the term files because the latter omit Foundational Studies courses and courses where students receive credits with a D grade that do not count toward graduation. We drop audit courses from the course files. In addition, we use the calculated term-level credits attempted and credits earned to create enrollment indicators. Specifically, a student is considered enrolled if their attempted credits are greater than zero and is considered full-time enrolled if their attempted credits exceed eleven in the fall or spring semester. These measures are then combined with relevant indicators from the term files to create comprehensive enrollment and full-time enrollment indicators. These enrollment indicators also enable us to analyze retention. In particular, we examine fall-to-spring retention, fall-to-fall retention, and across-year retention in either the fall or spring term. These outcomes are tracked within one year of application, excluding the summer term. For example, a student who applied for Fall 2023 is considered enrolled one year post application if the student enrolled in either Fall 2023 or Spring 2024. We classify students as having fall-to-fall retention if they enroll in the fall of their application year and the following fall, and as

having across-year retention in either term if they enroll in either the fall or spring of their application year and in either the following fall or spring.

We also utilize consent data provided by CCC, as well as data on the intake schedule, intake meeting attendance, intake status, and stipend data provided by OMD to track student engagement at various stages of the onboarding and recruitment process. By linking these data to CCC administrative data on student demographic characteristics, we can provide a descriptive overview of eligible takers and eligible non-takers. This data linkage process also allows us to identify OMD participants and evaluate the program's effects on those who actively engaged in programming (the treatment on the treated, described in more detail below). While this report focuses on post-secondary outcomes at CCC, future analyses will draw on National Student Clearinghouse (NSC) data to understand whether the program affects enrollment and completion at any post-secondary institution.

Study Sample. Our analytical sample includes fall applicants who applied to any CCC campus between 2015 and 2024. In line with the OMD campuswide program requirement, we only include students whose intended degree type is either an associate degree or an advanced certificate, excluding those pursuing non-degree or basic certificates. Since the first year of implementation at Olive-Harvey was 2022, the study period allows us to analyze outcomes for seven years before implementation and three years after. In this report, we focus on the Fall 2023 and Fall 2024 cohorts because the program was not fully implemented in the first year due to the extensive planning and implementation needed to lay the groundwork for scaling up efforts in subsequent years. Note that the inclusion of Fall 2022 does not change the takeaways presented in this report, and these results are available in the Appendix.

In total, our sample includes 245,721 applications submitted by 191,565 unique fall applicants. Table 2 presents the baseline characteristics at the application level for treated campuses (Olive-Harvey, Malcolm X, and Harold Washington) and untreated campuses (Harry S Truman, Wilbur Wright, Richard J. Daley, and Kennedy-King) over the study period. On average, treated campuses have a 13-percentage point higher proportion of female students compared to untreated campuses. The racial composition also

varies between the two groups, with untreated campuses having higher proportions of White and Hispanic students, while treated campuses have a higher proportion of Black students. This reflects an intentional decision by the district to prioritize campuses that serve larger populations of Black students for early implementation. The proportion of recent high school graduates, full-time employees, part-time employees, those with other employment status, including unemployed and homemakers, are similar in untreated and treated campuses. Likewise, there were few differences in students' intended degree type between the two groups.

Table 2. Baseline characteristics at the application level for treated and non-treated campuses (2015-2024)

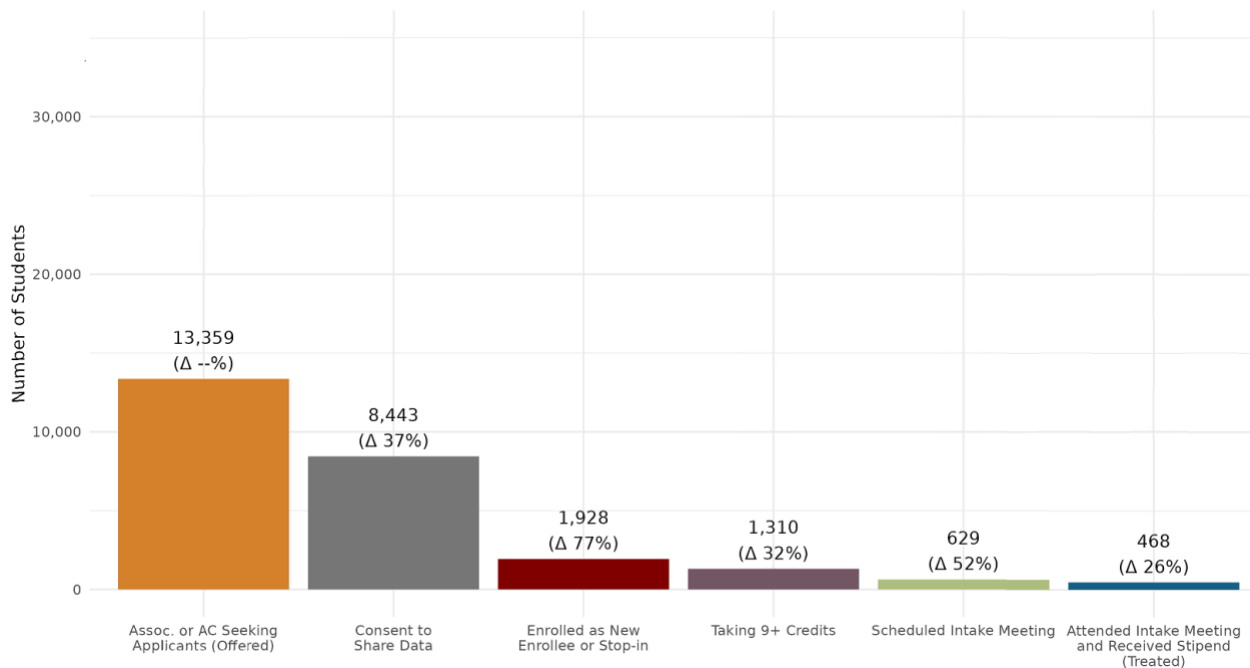
	Total	Non-treated	Treated
Female	60.27% (48.93%)	53.18% (49.90%)	66.31% (47.26%)
White	9.76% (29.68%)	13.34% (34.01%)	6.71% (25.01%)
Black	41.57% (49.29%)	33.13% (47.07%)	48.78% (49.99%)
Hispanic	41.62% (49.29%)	46.01% (49.84%)	37.87% (48.51%)
Other races	3.92% (19.41%)	3.86% (19.25%)	3.98% (19.55%)
Recent high school graduate	47.16% (49.92%)	48.66% (49.98%)	45.88% (49.83%)
Employed full-time	30.31% (45.96%)	28.79% (45.28%)	31.60% (46.49%)
Employed part-time	24.30% (42.89%)	24.63% (43.08%)	24.03% (42.73%)
Unemployed, homemaker, or others	45.39% (49.79%)	46.58% (49.88%)	44.37% (49.68%)
Advanced cert or professional associate intended	2.24% (14.78%)	3.36% (18.01%)	1.28% (11.24%)
Transfer associate intended	97.76% (14.78%)	96.64% (18.01%)	98.72% (11.24%)
Observations	245,721	113,174	132,547

Notes: Other races include Multi-Racial Non-Hispanic, Middle Eastern/North African, Hawaiian or Pacific Islander, and Native American.

Program Take-Up. The program was offered to all eligible applicants at campuses with the OMD campuswide program in a given school year. However, only a portion of the eligible students actively participated in the program. Figures 1 and 2 show the total number of students who completed each stage of the recruitment and onboarding process at Olive-Harvey and Malcolm X in the 2023-24 school year and at Olive-Harvey, Malcolm X, and Harold Washington during the 2024-2025 school year, respectively. We also provide the take-up funnel separately for each campus in the same year in the Appendix.

In the 2023-24 school year, 3.5 percent of eligible fall applicants made it through the recruitment and onboarding process and actively engaged in OMD programming, receiving at least one program stipend payment. The drop off in engagement happened at many points along the recruitment pipeline. Roughly 37 percent of eligible applicants did not consent to share their data with the OMD team, precluding program outreach efforts. Of those that OMD had permission to contact, 77 percent never enrolled in their intended campus. While the offer of OMD has the potential to increase enrollment, it is important to note that students may decide not to enroll in CCC for a variety of reasons, including deciding to attend another college or university and deciding not to enroll in college at all. Of those eligible applicants who matriculated to their intended campus, more than two-thirds (68%) enrolled in at least nine credits needed to be eligible for the OMD campuswide program. Roughly half of these students (48%) scheduled an intake meeting with the OMD program of which three-fourths (74%) attended.

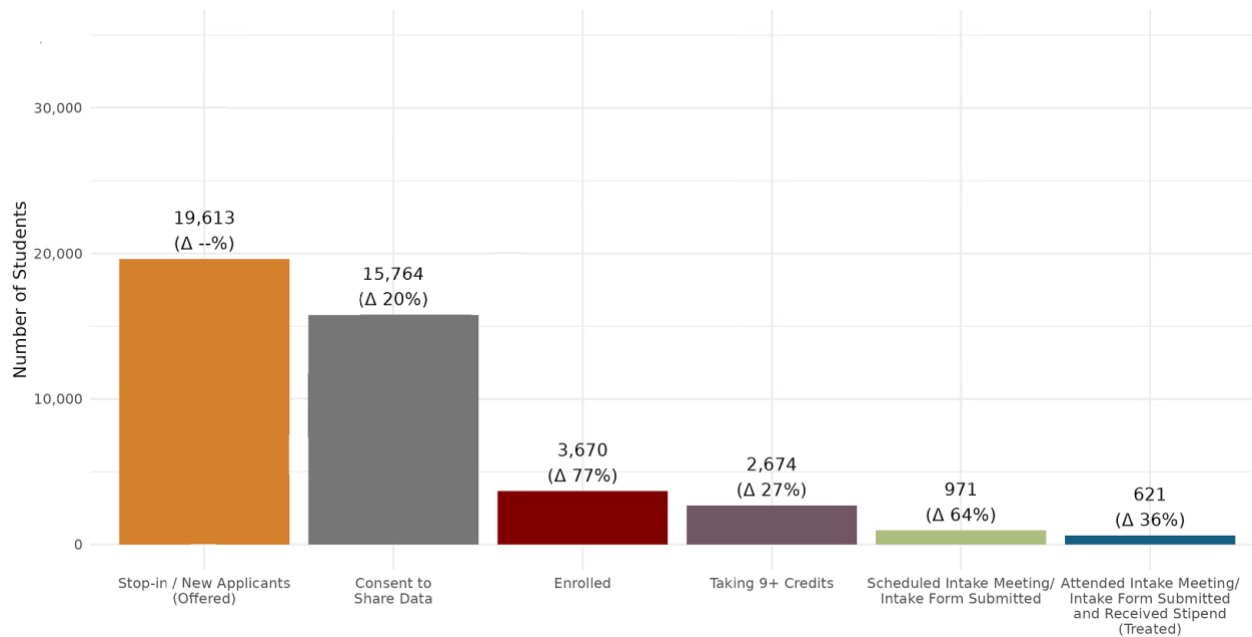
Figure 1. Take-up Funnel for Olive-Harvey and Malcolm X in 2023-2024



Notes: This figure shows the number of students at each eligibility stage. The percentage change in each eligibility stage refers to the decrease in percentage from the previous stage. Students are only included in the next eligibility stage if they were also included in the last stage (e.g., the number of students who consented to share data with OMD is not the total number of students who consented to share data with OMD. Instead, it is the number of students who not only consented to share data with OMD but were also seeking an associate degree or advanced certificate.) We used enrollment in 9+ credits as a proxy for OMD eligibility, taking into account a caveat that this measure captures end-of-term and not start-of-term values.

We saw a similar pattern in the 2024-25 school year. Figure 2 shows that out of 19,613 fall applicants who intended to pursue either an associate degree or an advanced certificate across all three campuses, 81 percent (15,764 students) consented to share their data with OMD. Compared to the initial two years of implementation, this significant increase reflects a major improvement in the program, with building consent now integrated into the application process. Approximately one-fourth of those who consented went on to enroll (3,670 students), with three-fourths registering for at least nine credits (2,674 students). Note that starting in Spring 2025, students submit an intake form instead of scheduling an intake meeting. Among the students who completed the credit requirement, 36 percent scheduled an intake meeting or submitted an intake form (971 students), and 23 percent attended the intake meeting or submitted an intake form and received the program stipend (621 students).

Figure 2. Take-up Funnel for Olive-Harvey, Malcolm X, and Harold Washington in 2024-2025



Notes: This figure shows the number of students at each eligibility stage. The percentage change in each eligibility stage refers to the decrease in percentage from the previous stage. Students are only included in the next eligibility stage if they were also included in the last stage (e.g., the number of students who consented to share data with OMD is not the total number of students who consented to share data with OMD. Instead, it is the number of students who not only consented to share data with OMD but were also seeking an associate degree or advanced certificate.) We used enrollment in 9+ credits as a proxy for OMD eligibility, taking into account a caveat that this measure captures end-of-term and not start-of-term values. This proxy of credit eligibility and the number of students with non-missing covariates contribute to the discrepancy in the number of students who received the OMD stipend in the funnel and students who received treatment in the impact analysis. Starting in Spring 2025, students submit an intake form instead of scheduling an intake meeting.

To understand which students are more likely to complete the recruitment and onboarding process, we provide summary statistics for eligible applicants pursuing an associate degree or advanced certificate and compare the two groups within this sample - eligible takers and eligible non-takers. We include summary statistics for both the 2023-2024 and 2024-2025 academic years to match our analytic sample. As shown in Table 3, there are a total of 30,977 eligible applicants across the three treated campuses, including 1,240 eligible takers and 29,737 eligible non-takers. On average, eligible takers are five percentage points more likely to be female, four percentage points less likely to be white, seven percentage points less likely to be Black, and ten percentage points more likely to be Hispanic compared to eligible non-takers. Recent high school graduates make up a higher portion of eligible takers compared to eligible non-takers (44.92 percent vs. 38 percent). Consistent with the trade-offs students must make between work and school, eligible takers are slightly less likely to be employed full-time and slightly more likely to be employed

part-time or not in the workforce. The proportion of students who are pursuing an advanced certificate or professional associate track is nine percentage points higher among eligible takers than among non-takers. Those who choose the transfer associate pathway comprise 89.03 percent of the total eligible takers, which is nine percentage points lower than eligible non-takers.

Table 3. Baseline characteristics of eligible applicants, eligible takers, and eligible non-takers in the 2023-2024 and 2024-2025 academic years

	All Eligible Applicants	Eligible Takers	Eligible Non- takers
Female	67.82% (46.72%)	72.74% (44.55%)	67.62% (46.79%)
White	8.27% (27.54%)	4.19% (20.05%)	8.44% (27.80%)
Black	50.37% (50.00%)	43.79% (49.63%)	50.65% (50.00%)
Hispanic	34.94% (47.68%)	44.68% (49.47%)	34.53% (47.55%)
Other races	4.58% (20.90%)	4.92% (21.64%)	4.56% (20.87%)
Recent high school graduate	38.28% (48.61%)	44.92% (49.76%)	38.00% (48.54%)
Full-time employee	31.13% (46.30%)	25.16% (43.41%)	31.38% (46.41%)
Part-time employee	23.53% (42.42%)	26.61% (44.21%)	23.40% (42.34%)
Unemployed, homemaker, or other	45.34% (49.78%)	48.23% (49.99%)	45.22% (49.77%)
Advanced certificate or professional associate intended	2.04% (14.13%)	10.97% (31.26%)	1.66% (12.79%)
Transfer associate intended	97.96% (14.13%)	89.03% (31.26%)	98.34% (12.79%)
Observations	30,977	1,240	29,737

Notes: Other races include Multi-Racial Non-Hispanic, Middle Eastern/North African, Hawaiian or Pacific Islander, and Native American.

Analytic Approach. To account for imperfect take-up, we estimate both the average treatment effect of offering OMD on the treated campuses, or the intent-to-treat (ITT), and the effect of participating in OMD, or the Treatment on the Treated (TOT). The ITT can be seen as a *policy effect* in

that it provides an estimate of how much overall student outcomes on a campus are changing as a result of the introduction of OMD campuswide. The TOT can be interpreted as a *program effect*, measuring the impact of the program for those who participated. We employ the difference-in-difference model, which leverages the staggered implementation of the program across campuses. Specifically, we use the following equation to estimate the ITT effect:

$$Y_{ict} = \alpha_0 + \alpha_1 Treat_{ict} + CampusApplied_c + TermApplied_t + X_{ict} + \epsilon_{ct} \quad (1)$$

where Y_{ict} is the outcome for student i who applied to campus c in term t , $CampusApplied_c$ is a vector of fixed effects for campus, $TermApplied_t$ is a vector of fixed effects for the application term that the student applied to, $Treat_{ict}$ is the indicator for whether student i applied to a treated campus in a year in which the program was being implemented at that campus, X_{ict} is a vector of student characteristics used as control covariates, and ϵ_{ct} is the error term and is clustered at the application campus level.

Incorporating these fixed effects in the model nonparametrically adjusts for time-invariant unobservable determinants of the outcomes of interest across application campus and time. The coefficient of interest α_1 captures the OMD program effect.

We estimate the TOT using the application to a treated campus as an instrument for receiving an OMD stipend (our measure of whether a student participated in the program). The first stage for the TOT model is:

$$OMDStipend_{ict} = \beta_0 + \beta_1 Treat_{ict} + CampusApplied_c + TermApplied_t + X_{ict} + \omega_{ct} \quad (2)$$

Where $OMDStipend_{ict}$ is an indicator for whether a student has received an OMD stipend one year post application, $CampusApplied_c$ is a vector of fixed effects for campus, $TermApplied_t$ is a vector of fixed effects for the application term that the student applied to, $Treat_{ict}$ is the indicator for whether student i applied to a treated campus in a year in which the program was being implemented at that campus, β_1 is the coefficient for treatment in the first stage, X_{ict} is a vector of student characteristics used as control covariates, and ω_{ct} is the error term and is clustered at the application campus level.

The second stage equation is:

$$Y_{ict} = \delta_0 + \delta_1 \widehat{OMDStipend}_{ict} + CampusApplied_c + TermApplied_t + X_{ict} + \theta_{ct} \quad (3)$$

where Y_{ict} is the outcome for student i who applied to campus c in term t , $\widehat{OMDStipend}_{ict}$ is the predicted value of $OMDStipend_{ict}$ from the first stage, $CampusApplied_c$ is a vector of fixed effects for campus, $TermApplied_t$ is a vector of fixed effects for the term that the student applied, X_{ict} is a vector of student characteristics used as control covariates, and θ_{ct} is the error term and is clustered at the application campus level. The coefficient of interest δ_1 captures the OMD program effect for those who participated in the program.

To benchmark the ITT and TOT effects, we calculate the average for the comparison group and the average for the comparison complier group, respectively. The comparison complier group refers to students who would have taken the OMD programming offering if presented the opportunity. We exclude the TOT estimates for enrollment and full-time enrollment because those who would have taken OMD would also have had to enroll in CCC. In other words, there is an embedded enrollment effect within the TOT estimates. In the Findings section, we also include the regression-adjusted treatment average and regression-adjusted taker average, which are, respectively, the difference between the ITT and the comparison average, and the difference between the TOT and the comparison complier average.

Limitations. Several limitations of the study should be noted. First, our study only includes Fall applicants to ensure we capture the full set of campuses for the first year after application. Due to data availability, we are only able to estimate fall-to-fall retention and across-year retention in either term for Fall 2023 applicants. Second, the statistical power of our initial estimates is limited because we only have two post-implementation cohorts of applicants. To maximize statistical power, we pool effects across campuses, but this masks variation across campuses. Finally, the implementation is still in early stages, so the program's effectiveness may change as the model and delivery evolve further.

Findings

Table 4 shows the ITT and TOT effects of OMD expansion on enrollment, full-time enrollment, retention, credits attempted, and credits earned. Applicants offered a spot in the OMD expansion program enrolled at 3.8 percentage points higher than those who were not, an increase of 10.3 percent over the comparison mean of 36.6 percent. This effect is statistically significant at the 0.1 level. While applicants offered a spot in the program were more likely to enroll full-time, this difference was not statistically significant at traditional levels. When examining the effects of OMD expansion on course taking, we observe an increase of 0.6 in both credits attempted and credits earned in the year after applying to CCC. The effect on credits attempted is statistically significant at the 0.1 level and represents a 9 percent increase from the comparison mean, while the effect on credits earned is statistically significant at the 0.05 level and corresponds to a 13 percent increase from the comparison mean. Applicants offered a spot in the program have a 2.2 percentage points higher fall-to-spring retention rate than those who were not, which amounts to an increase of 10.5 percentage points over the comparison mean. This difference is statistically significant at the 0.1 level. We find no statistically significant effect on retention fall-to-fall and retention across years in either term as a result of OMD expansion. However, it is important to note that because we only have data on fall-to-fall and year-to-year retention for the 2023 cohort of applicants, we have less statistical power to detect effects on these outcomes.

As expected, when we turn to the TOT estimates, we see that OMD expansion has substantially larger effects across all outcomes for those who engaged in programming. OMD participants attempted and earned significantly more credits than their comparison group peers. Specifically, we see an increase of 13.9 credits attempted and earned in the year after application. The result for credits attempted is statistically significant at the 0.05 level, and the result for credits earned is statistically significant at the 0.01 level. We find that applicants who took up an OMD offer are 56 percentage points more likely to be retained from fall to spring than those who would have chosen the program if it had been offered. We also observe an increase of 43.2 percentage points in the across-year retention rate among OMD participants. For both outcomes, the effects are statistically significant at the 0.05 level and the magnitudes are more

than double the comparison complier mean. We find no statistically significant change in fall-to-fall retention.

Table 4. ITT and TOT effects on enrollment, full-time enrollment, retention, credits attempted, and credits earned

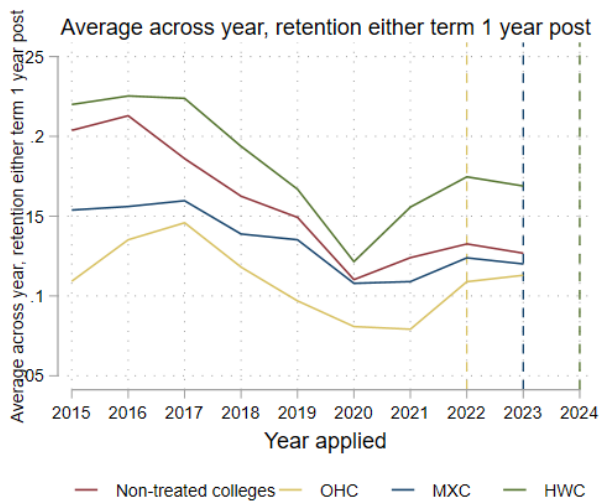
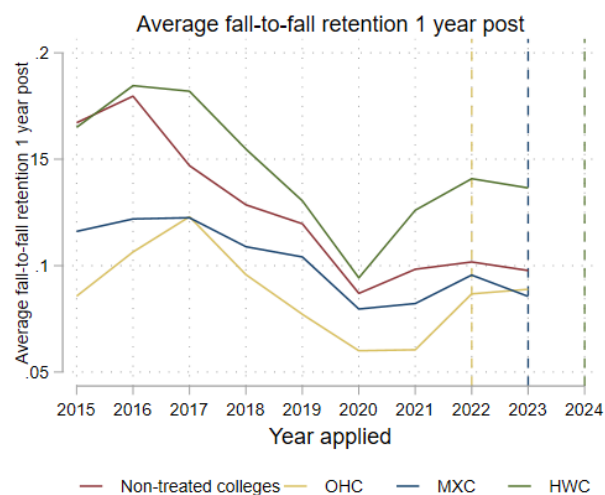
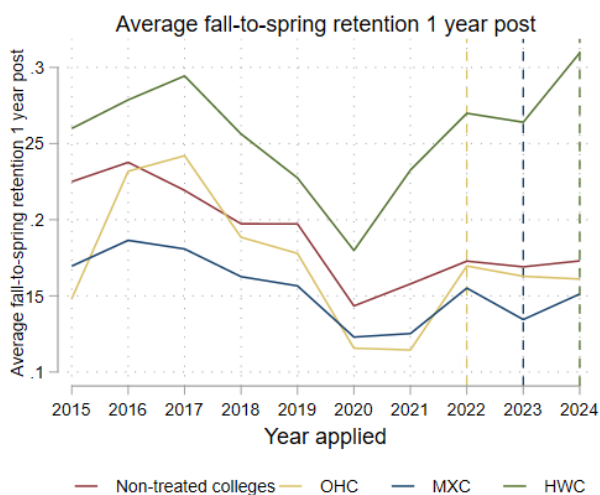
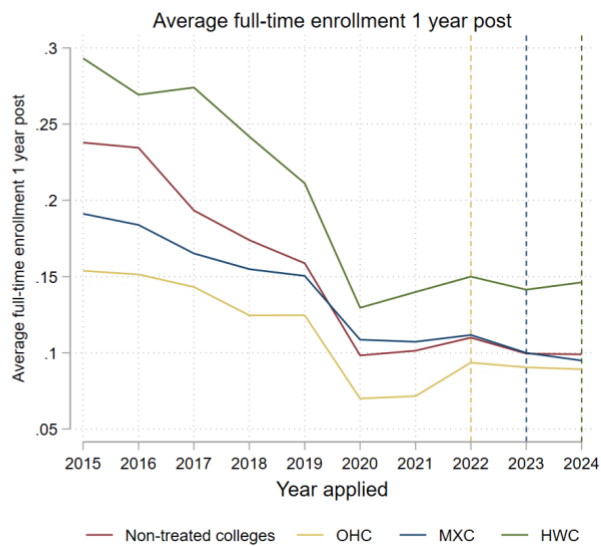
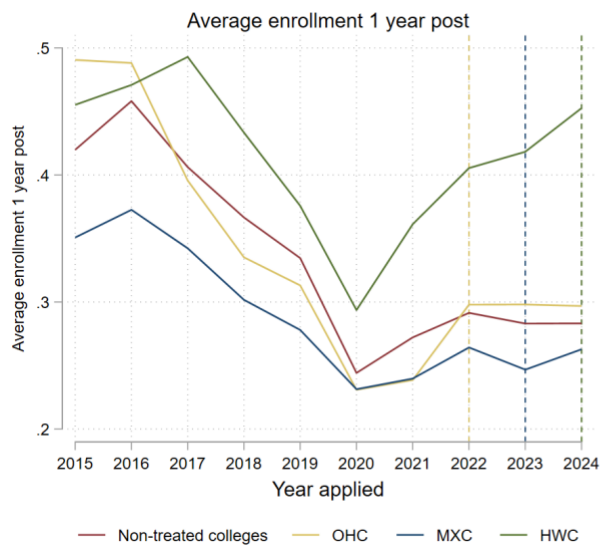
	Observations	Comparison Mean	Adjusted Treatment Mean	ITT	Comparison Complier Mean	Adjusted Taker Mean	TOT
Enrollment	245,721	36.64%	40.42%	3.78 ppt+ (1.84 ppt)			
Full-time enrollment	245,721	22.25%	23.62%	1.37 ppt (0.83 ppt)			
Credits attempted	245,721	6.23	6.79	0.56+ (0.266)	6.23	20.14	13.90* (6.355)
Credits earned	245,721	4.30	4.86	0.56* (0.206)	4.30	18.18	13.88** (5.05)
Fall-to-spring retention	245,721	21.31%	23.55%	2.24 ppt+ (1.13 ppt)	21.30%	77.06%	55.76 ppt* (26.1 ppt)
Fall-to-fall retention	211,019	15.87%	16.69%	0.83 ppt (0.97 ppt)	15.86%	35.01%	19.15 ppt (20.95 ppt)
Across-year either term retention	211,019	19.45%	21.32%	1.87 ppt (0.98 ppt)	19.44%	62.66%	43.22 ppt* (21.19 ppt)

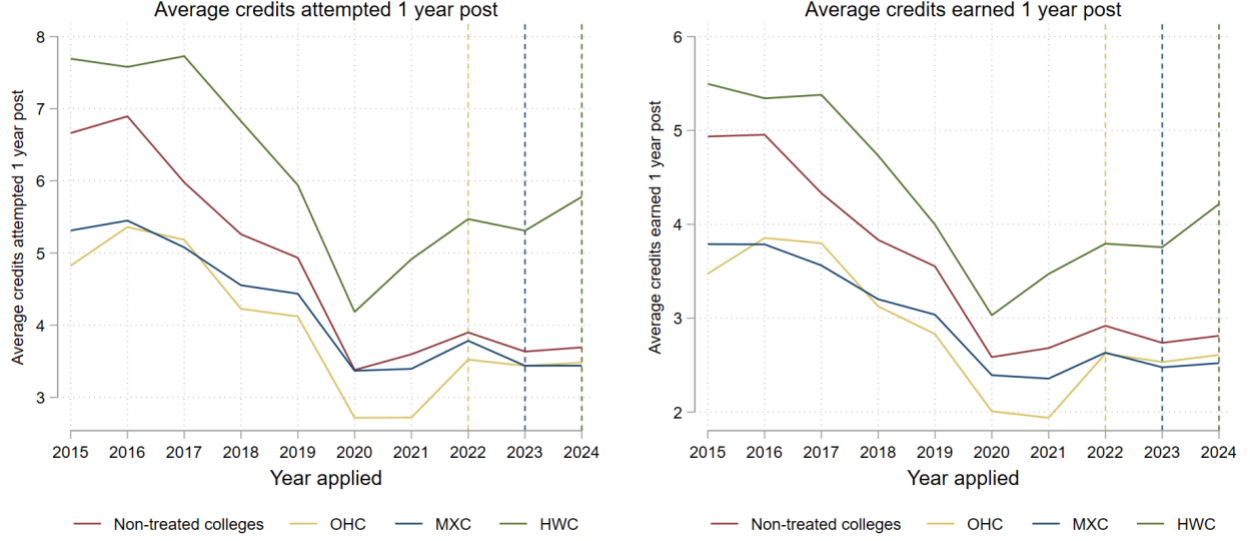
*Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Results excluding the 2022 cohort. Clustered standard errors at the application campus level are in parentheses. All models control for the student covariates listed in Table 1.*

Robustness Checks

Assessing the parallel trends assumption. The underlying identification assumption of the difference-in-difference design is that in the absence of OMD expansion, the outcomes between treated and untreated campuses would have evolved similarly over time. In other words, the timing and adoption of the program are not correlated with other interventions or other factors that could potentially influence the outcome trends in either group. This includes no anticipation effect at the treated campuses before OMD expansion is officially launched. Although this parallel trend assumption cannot be directly tested, we investigate the likelihood that it holds in our context in several ways. First, we plot the average outcomes to visually inspect the patterns in the data. Figure 3 shows the average enrollment, full-time enrollment, retention, credits attempted, and credits earned by year and campus from 2015 to 2024. The color-coded dotted lines signify when the OMD campuswide program is adopted on the corresponding campus. In general, we observe consistent differences between the untreated campuses and each treated campus in the pre-treatment period. We do observe some deviations from this pattern for full-time enrollment at MXC and enrollment rates which did not experience as substantial drops as the other campuses during the pandemic and for fall-to-spring and fall-to-fall retention at OHC which appear less stable early in the time series than the other campuses.

Figure 3. Trend in enrollment, full-time enrollment, retention, credits attempted, and credits earned.





To formally assess the validity of the parallel trend assumption, we follow the approach used in Miller et al (2019) and plot the estimated coefficients in the pre and post-treatment period and examine whether any of the anticipatory effects in the pre-period are significantly different from zero. We also investigate the likelihood of differential time trends between treated and untreated campuses by using the following event-style equation:

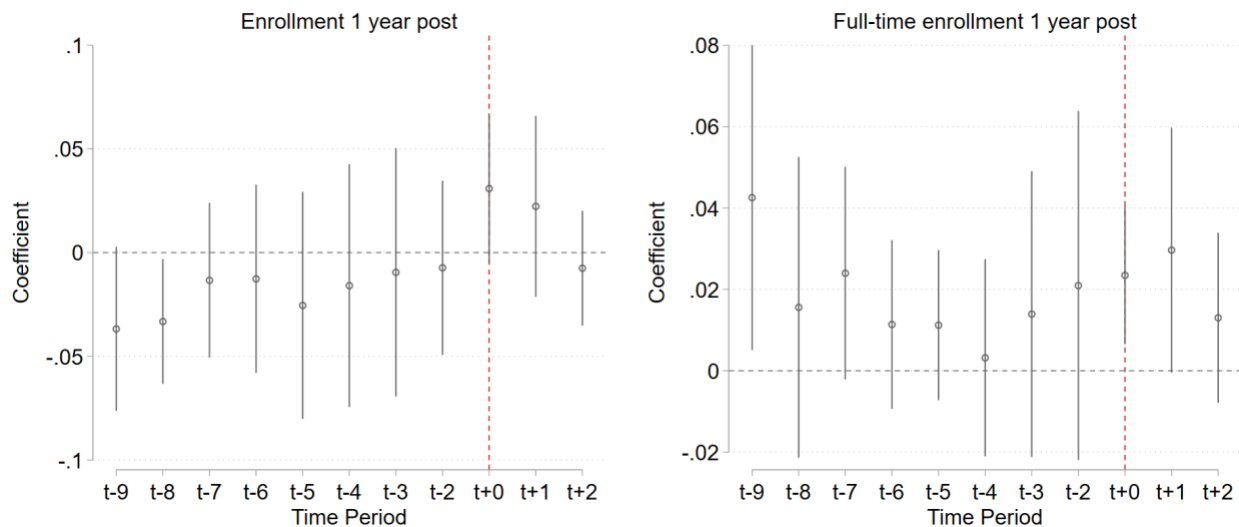
$$Y_{ict} = \pi_0 + \sum_{j=-m}^n \gamma_j Treat_{c,t+j} + CampusApplied_c + TermApplied_t + X_{ict} + \varepsilon_{ct} \quad (4)$$

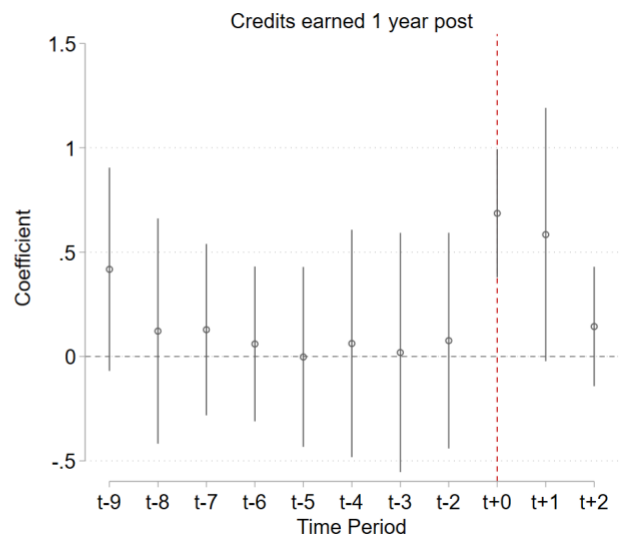
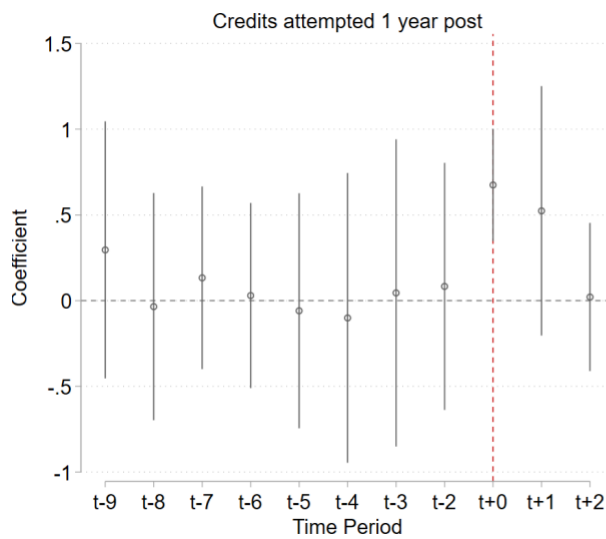
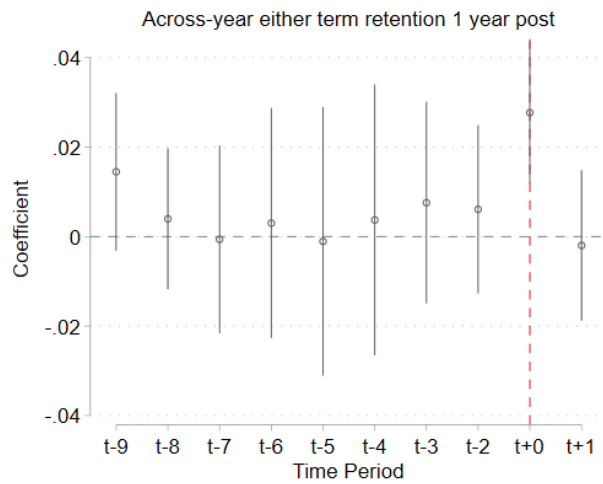
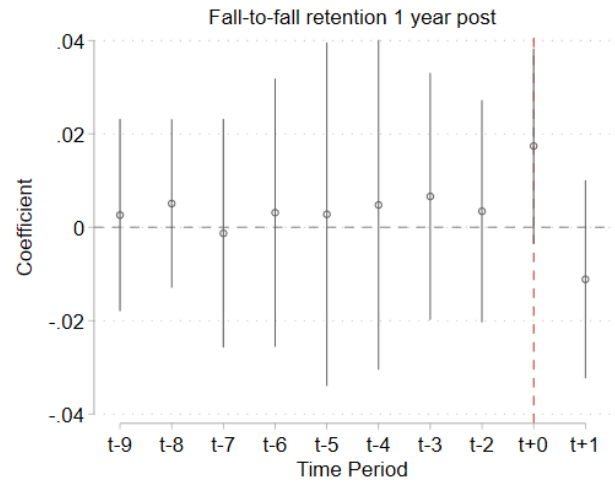
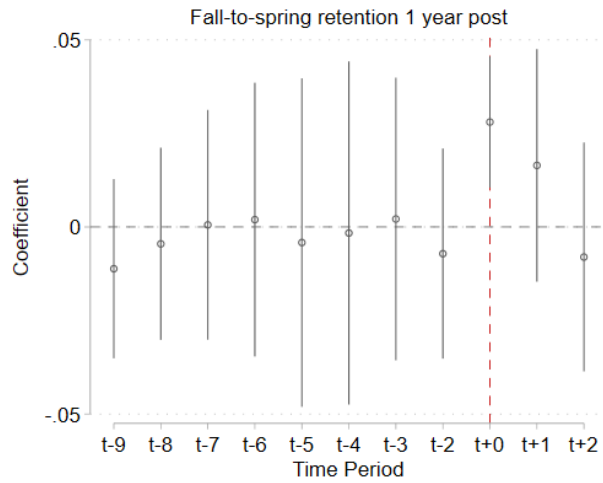
where Y_{ict} is the outcome for student i who applied to campus c in term t , the vector $Treat_{c,t+j}$ is composed of a separate indicator for each of the year before and after OMD expansion is implemented. We drop the year before the first year of implementation so that the estimated coefficients are relative to this benchmark, $CampusApplied_c$ is a vector of fixed effects for campus, $TermApplied_t$ is a vector of fixed effects for the application term that the student applied to, X_{ict} is a vector of student characteristics used as control covariates, and ε_{ct} is the error term and is clustered at the application campus level. The coefficients of interest, γ_j , shows the average values of the outcome j years before and after OMD expansion is adopted, and is identified based on the variation in the adoption timing of the program across

campuses. The event study allows us to assess the validity of the parallel trend assumptions by examining the pre-trend outcomes and to explore the year-to-year effect of the program.

We graphically depict the event study results in Figure 4. The vertical lines denote the 95% confidence interval for the impact estimate for each period relative to the adoption year. Focusing on the pre-treatment period, we generally see the confidence intervals overlapping the horizontal lines centered at zero for all outcomes and time periods, suggesting that post-treatment effects are explained by pre-treatment differences. The two exceptions are early in the time series when we examine enrollment and full-time enrollment. We explore the sensitivity of our main results to these differences below. Appendix Table 1 presents the full results of the estimated coefficients for each year before and after OMD expansion is adopted. The F-statistics of joint significance and the corresponding p-value show that the coefficients for five out of seven outcomes in the pre-periods are not jointly different from zero at the 0.05 level. Taken as a whole, we take these results as demonstrating support that the parallel trend assumption holds.

Figure 4. Event-study – Effect of OMD expansion on enrollment, full-time enrollment, retention, credits attempted, and credits earned





Sensitivity Analyses. We conduct several analyses to ensure that our findings are not overly sensitive to modelling and sample construction decisions. First, to account for the staggered nature of program implementation and the potentially heterogeneous treatment effects across different years in the post period, we supplement the traditional two-way fixed effects (TWFE) model with Callaway and Sant’Anna (2021) difference-in-difference approach using the never-treated group as the base comparison. Results from this analysis can be found in Table 5 below. The enrollment effect is estimated to be 1.5 percentage points, slightly lower than the TWFE model, but in the same direction and statistically significant at the 0.05 level. The effects on the three measures of retention are similar to those in the TWFE model. However, we find the estimate for fall-to-fall retention is significant at the 0.1 level, while across-year retention in either term is significant at the 0.01 level, suggesting that the null finding from the TWFE model may be overly conservative. In addition, there is a 0.3-credit increase for both credits attempted and credits earned; however, the effect is statistically significant only for credits earned using the Callaway and Sant’Anna approach. Overall, these results are aligned with the main specification.

Table 5. Aggregate ITT effects on enrollment, full-time enrollment, retention, credits attempted, and credits earned following Callaway and Sant’Anna’s (2021) approach

Outcome	Observations	Aggregate ITT
Enrollment	178,641	1.49 ppt* (0.67 ppt)
Full-time enrollment	178,641	0.67 ppt (0.67 ppt)
Fall-to-spring retention	178,641	2.18 ppt+ (1.23 ppt)
Fall-to-fall retention	154,625	0.98 ppt+ (0.54 ppt)
Across-year either term retention	154,625	1.13 ppt** (0.41 ppt)
Credits Attempted	178,641	0.30 (0.25)
Credits Earned	178,641	0.33+ (0.18)

*Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Results excluding the 2022 cohort. Clustered standard errors at the application campus level are in parentheses. Estimates are obtained using Stata csdid command developed by*

Callaway and Sant'Anna (2020) using never-treated group as the base comparison. All models control for the student covariates listed in Table 1.

In addition, we examine whether the study findings are sensitive to inclusion or exclusion of certain study cohorts. Specifically, we assess whether the result change if we limit the pre-treatment time series to just the three years prior to the first year of campuswide implementation in Fall 2023. This analysis allows us to focus on the post-COVID period and excludes the early cohorts where we saw some suggestion of the parallel trends assumption potentially being violated for some outcomes. The results from these analyses were consistent with our main specification (Appendix Table 2). To ensure that this analysis was not sensitive to the decision to exclude the 2022 cohort, we also ran the analysis including this cohort and found similar results (Appendix Table 3).

Placebo Testing. Finally, we ran a placebo test to try to rule out the possibility that other changes at the implementing campuses were driving our observed results. Because only students pursuing an associate degree or an advanced certificate are eligible for the OMD campuswide program, we also employ the same difference-in-differences strategy to estimate the program's effects on students attending CCC for a basic certificate or adult education courses. This analysis serves as a placebo test to help rule out the possibility that something other than the OMD expansion is changing at the expansion campuses that is affecting student outcomes. As expected, we did not find any significant changes in any student outcomes for the students in the placebo group (Appendix Table 4).

Discussion

The analyses presented in this paper provide evidence that the campuswide implementation of the OMD program is improving early indicators of student success. Using a difference-in-difference design that takes advantage of the staggered roll-out of the program, we find that OMD campuswide increased CCC enrollment, the number of CCC credits attempted and earned, and fall-to-spring retention. These effects were either marginally significant at the 0.10 level or significant at the traditional 0.05 level. Full-

time enrollment and fall-to-fall retention were also higher for students who were offered OMD campuswide, but these differences were not significant at traditional levels.

It is important to note that, while these results are promising, we are early in implementation and the research design is still underpowered from a statistical perspective. Our final analysis will draw on data from all credit-seeking students who applied to or will apply to one of the seven CCC campuses between the 2016-17 and 2025-26 academic years, maximizing the statistical power to detect effects. However, given key decisions about the future of the campuswide model may need to be made before these results will be available, we thought it was important to publish these early results even though they are somewhat underpowered. As a result, we on the whole, take these results to be suggestive that the program improves outcomes for students. However, we will have to wait a few years for more definitive evidence, especially on the program's effect on fall-to-fall retention and longer-term outcomes, such as degree completion, transfer and employment.

These early findings do suggest that the impact of the campuswide program could be strengthened even further by increasing program take-up. A small portion of eligible applicants (roughly 3% in the 24-25 school year) successfully engaged in the program. Notably the program was so impactful for this group of students that it succeeded in moving overall outcomes of all applicants in the campuswide campuses. However, these findings suggest that the program's impact could be magnified by increasing the number of students who actively participate. CCC and OMD staff have already begun to explore potential levers to increase program take-up.

As program implementation continues, the evaluation team will continue to track student outcomes. Future analyses will both examine the outcomes presented in this paper for additional cohorts of campuswide students and thus have more statistical power. As more time elapses, we will also track longer term outcomes, most notably degree completion.

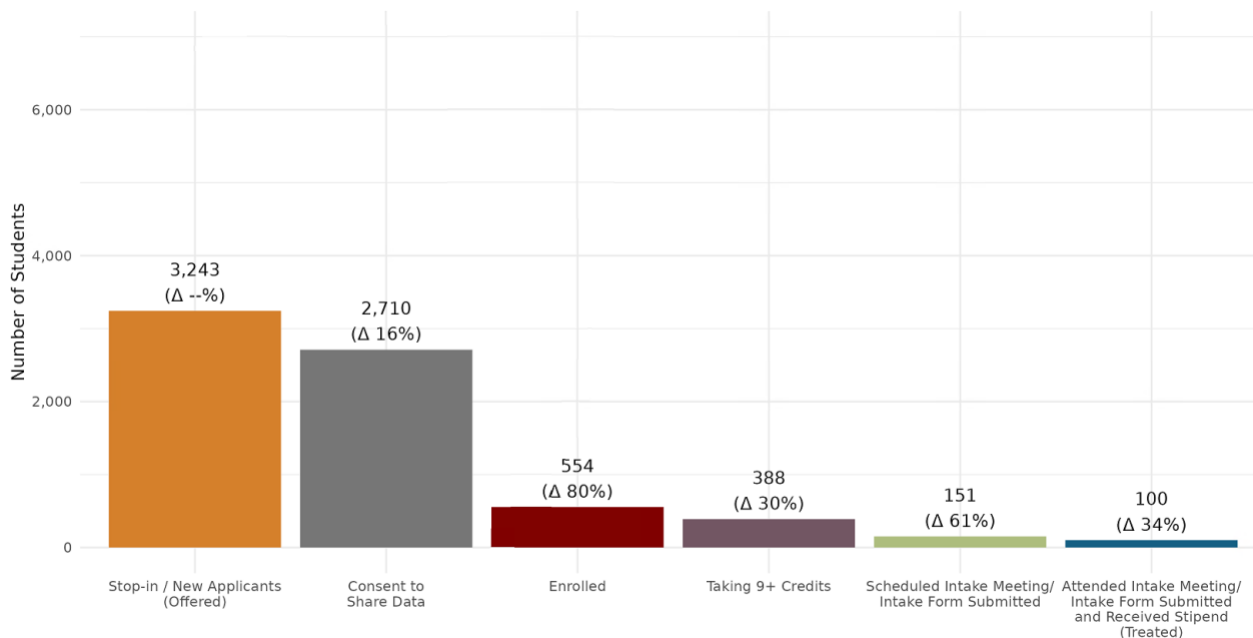
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Appendix

Appendix Figure 1 shows the number of students at each eligibility stage for Olive-Harvey in 2024-2025. Out of 3,243 fall applicants who intended to pursue an associate degree or advanced certificate, 84 percent (2,710) consented to share their data with OMD. Approximately one-fifth of those who consented subsequently enrolled (554 students). Out of those who enrolled, 70 percent enrolled in at least nine credits (388 students). Among these eligible students, 39 percent signed up for an intake meeting or submitted an intake form (151 students), and 26 percent (100 students) attended the meeting or submitted an intake form and received the program stipend.

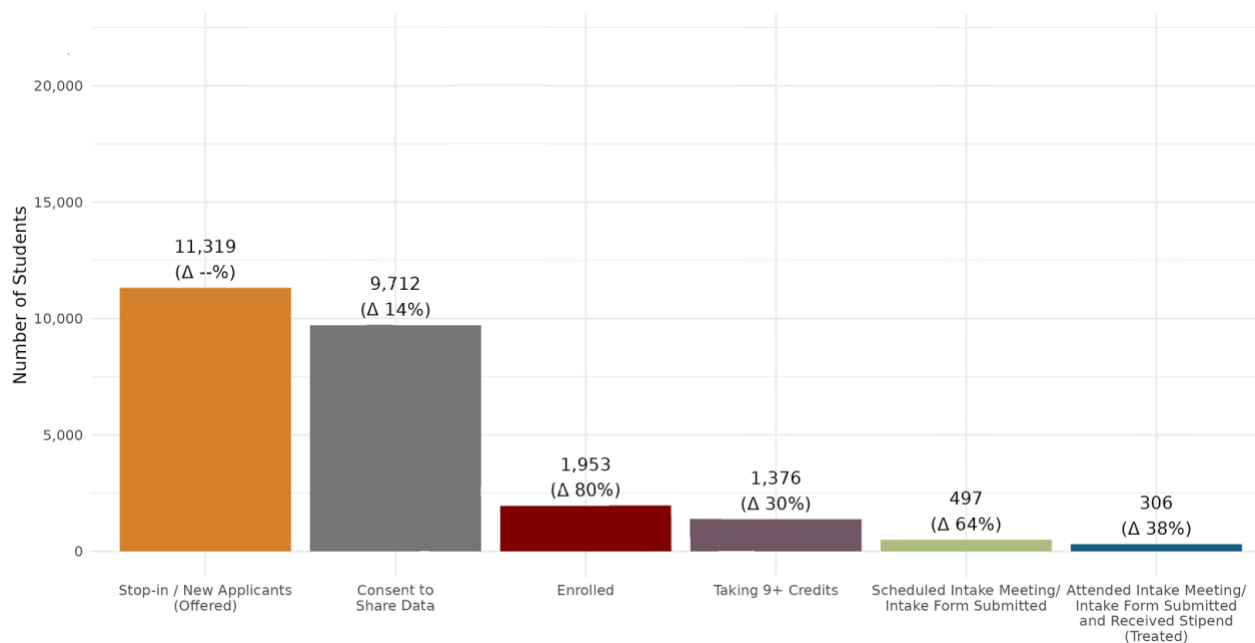
Appendix Figure 1. Take-up Funnel for Olive-Harvey in 2024-2025



Notes: This figure shows the number of students at each eligibility stage. The percentage change in each eligibility stage refers to the decrease in percentage from the previous stage. Students are only included in the next eligibility stage if they were also included in the last stage (e.g., the number of students who consented to share data with OMD is not the total number of students who consented to share data with OMD. Instead, it is the number of students who not only consented to share data with OMD but were also seeking an associate degree or advanced certificate.) We used enrollment in 9+ credits as a proxy for OMD eligibility, taking into account a caveat that this measure captures end-of-term and not start-of-term values. Starting in Spring 2025, students submit an intake form instead of scheduling an intake meeting.

Appendix Figure 2 presents the analogous figure for the 2024-25 academic year at Malcolm X. There are a total of 11,319 fall applicants whose intended degree type are associate degree or advanced certificate programs. Similar to Olive-Harvey, the consent rate is high at 86 percent (9,712 students), and one-fifth of those who consented to share their data with OMD decided to enroll (1,953 students). The majority of the enrolled students registered for at least nine credits (1,376 students). Of those who fulfilled the credit requirements, 36 percent scheduled an intake meeting or submitted an intake form (497 students), and 22 percent attended the intake meeting or submitted an intake form and received the program stipend (306 students).

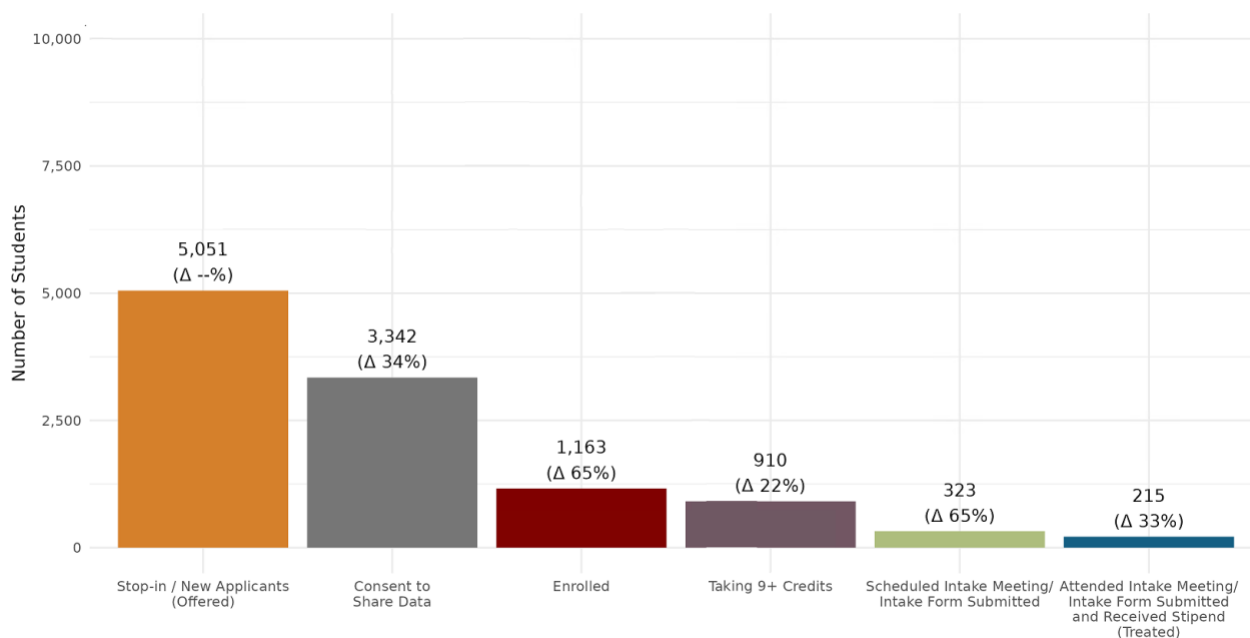
Appendix Figure 2. Take-up Funnel for Malcolm X in 2024-2025



Notes: This figure shows the number of students at each eligibility stage. The percentage change in each eligibility stage refers to the decrease in percentage from the previous stage. Students are only included in the next eligibility stage if they were also included in the last stage (e.g., the number of students who consented to share data with OMD is not the total number of students who consented to share data with OMD. Instead, it is the number of students who not only consented to share data with OMD but were also seeking an associate degree or advanced certificate.) We used enrollment in 9+ credits as a proxy for OMD eligibility, taking into account a caveat that this measure captures end-of-term and not start-of-term values. Starting in Spring 2025, students submit an intake form instead of scheduling an intake meeting.

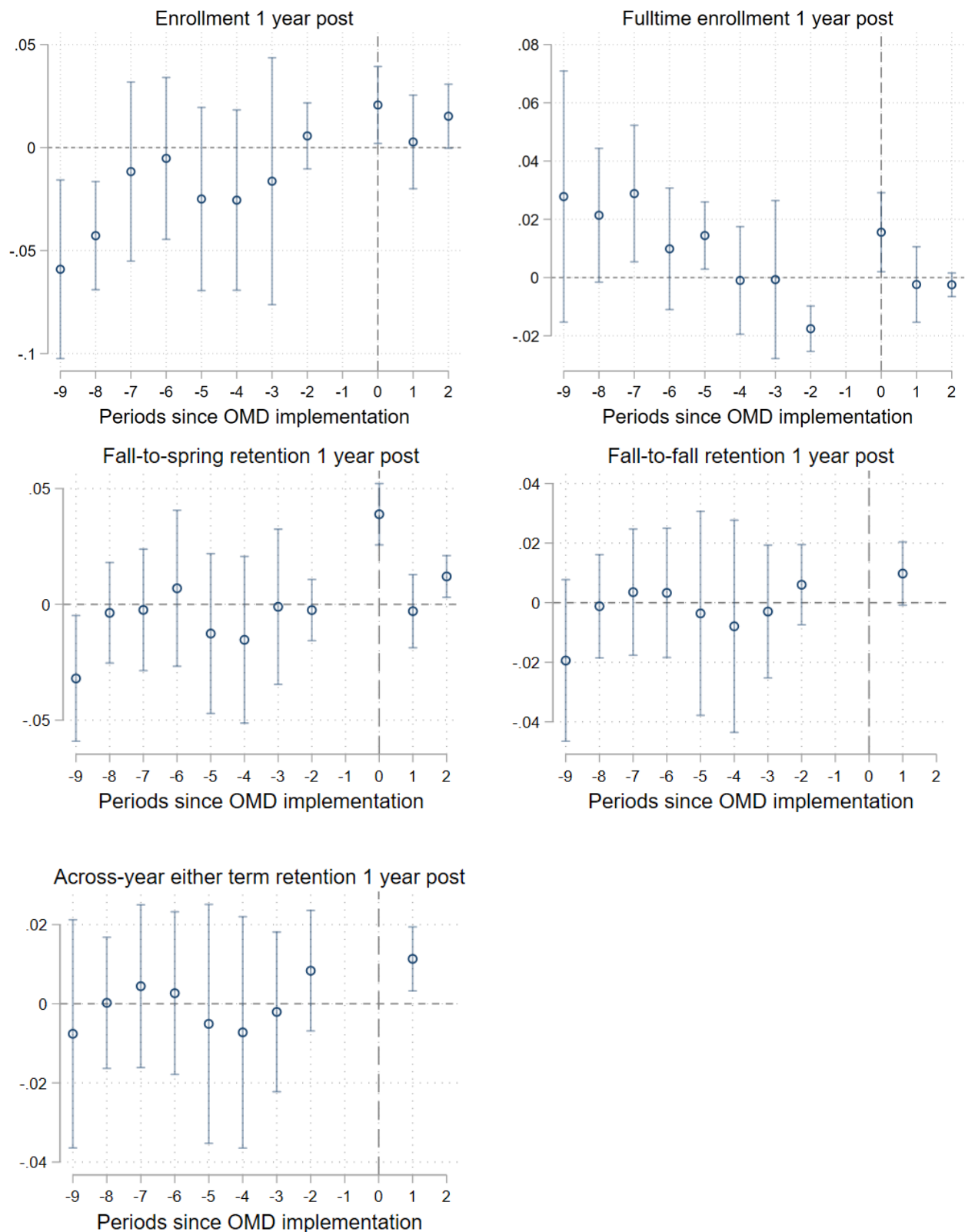
Finally, Appendix Figure 3 shows the take-up funnel for Harold Washington in the 2024-2025 academic year. Out of 5,051 fall applicants seeking enrollment in associate degrees or advanced certificate programs, 66 percent consented to share their data with OMD (3,342 students), which is slightly lower than at Olive-Harvey and Malcolm X. However, the enrollment rate among those who consented is higher at 35 percent (1,163 students). The majority of enrolled students signed up for at least nine credits (910 students). Slightly more than one-third of those who completed the credit requirements scheduled an intake meeting or submitted an intake form (323 students), and slightly less than one-fourth attended the intake meeting or submitted an intake form and received the program stipend (215 students).

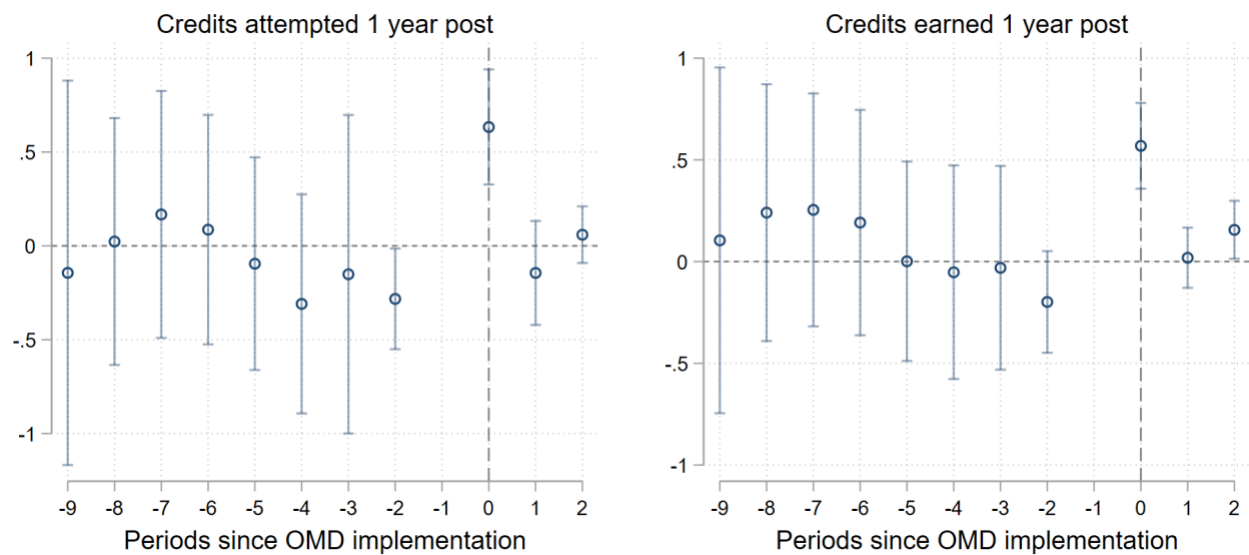
Appendix Figure 3. Take-up Funnel for Harold Washington in 2024-2025



Notes: This figure shows the number of students at each eligibility stage. The percentage change in each eligibility stage refers to the decrease in percentage from the previous stage. Students are only included in the next eligibility stage if they were also included in the last stage (e.g., the number of students who consented to share data with OMD is not the total number of students who consented to share data with OMD. Instead, it is the number of students who not only consented to share data with OMD but were also seeking an associate degree or advanced certificate.) We used enrollment in 9+ credits as a proxy for OMD eligibility, taking into account a caveat that this measure captures end-of-term and not start-of-term values. Starting in Spring 2025, students submit an intake form instead of scheduling an intake meeting.

Appendix Figure 4. Event-study results on enrollment, full-time enrollment, retention, credits attempted, and credits earned using Callaway and Sant'Anna's (2021) approach





Notes: Results excluding the 2022 cohort. Estimates are derived using Stata *csdid* command developed by Callaway and Sant'Anna's (2021). All models control for the student covariates listed in Table XXX.

Appendix Table 1. Event-study results for enrollment, full-time enrollment, retention, credits attempted, and credits earned

	Enrollment	Full-time Enrollment	Fall-to-spring Retention	Fall-to-fall Retention	Across-year Either Term Retention	Credits Attempted	Credits Earned
9 years prior	-3.68 ppt+ (1.62 ppt)	4.26 ppt* (1.53 ppt)	-1.12 ppt (0.98 ppt)	0.26 ppt (0.84 ppt)	1.45 ppt+ (0.72 ppt)	0.30 (0.31)	0.42+ (0.20)
8 years prior	-3.32 ppt* (1.23 ppt)	1.56 ppt (1.51 ppt)	-0.45 ppt (1.05 ppt)	0.51 ppt (0.74 ppt)	-0.40 ppt (0.64 ppt)	-0.03 (0.27)	0.12 (0.22)
7 years prior	-1.33 ppt (1.53 ppt)	2.40 ppt+ (1.07 ppt)	0.06 ppt (1.26 ppt)	-0.13 ppt (1.00 ppt)	-0.06 ppt (0.86 ppt)	0.13 (0.22)	0.13 (0.17)
6 years prior	-1.26 ppt (1.85 ppt)	1.14 ppt (0.85 ppt)	0.20 ppt (1.50 ppt)	0.31 ppt (1.17 ppt)	0.30 ppt (1.05 ppt)	0.03 (0.22)	0.06 (0.15)
5 years prior	-2.54 ppt (2.24 ppt)	1.12 ppt (0.75 ppt)	-0.42 ppt (1.80 ppt)	0.28 ppt (1.50 ppt)	-0.11 ppt (1.23 ppt)	-0.06 (0.28)	-0.002 (0.18)
4 years prior	-1.59 ppt (2.39 ppt)	0.32 ppt (0.99 ppt)	-0.16 ppt (1.87 ppt)	0.48 ppt (1.44 ppt)	0.37 ppt (1.24 ppt)	-0.10 (0.35)	0.06 (0.22)
3 years prior	-0.95 ppt (2.45 ppt)	1.39 ppt (1.44 ppt)	0.21 ppt (1.54 ppt)	0.66 ppt (1.08 ppt)	0.76 ppt (0.92 ppt)	0.05 (0.37)	0.02 (0.23)
2 years prior	-0.73 ppt (1.72 ppt)	2.09 ppt (1.75 ppt)	-0.71 ppt (1.15 ppt)	0.34 ppt (0.97 ppt)	0.61 ppt (0.77 ppt)	0.08 (0.29)	0.08 (0.21)
Intervention year	3.09 ppt+ (1.45 ppt)	2.35 ppt* (0.69 ppt)	2.81 ppt** (0.72 ppt)	1.74 ppt+ (0.85 ppt)	2.77 ppt** (0.65 ppt)	0.67** (0.13)	0.69** (0.13)
1 year post	2.23 ppt (1.78 ppt)	2.96 ppt+ (1.23 ppt)	1.65 ppt (1.27 ppt)	-1.12 ppt (0.87 ppt)	-0.20 ppt (0.69 ppt)	0.52 (0.30)	0.58+ (0.25)
2 years post	-0.75 ppt (1.13 ppt)	1.30 ppt (0.85 ppt)	-0.80 ppt (1.25 ppt)			0.02 (0.18)	0.14 (0.12)
F-statistics	19.23	3.83	3.61	1.67	3.09	5.83	2.97
P-value	0.001	0.06	0.07	0.27	0.10	0.03	0.11
F-statistics							
Observations	245,721	245,721	245,721	211,019	211,019	245,721	245,721

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Results exclude the 2022 cohort. Clustered standard errors at the applied campus level are in parentheses. All models control for the student covariates listed in Table 1. F-statistics are used to test for the joint statistical significance of the pre-periods.

Appendix Table 2. Sensitivity Analysis - Event-study results for enrollment, full-time enrollment, persistence, credits attempted, and credits earned excluding pre-2020 periods

	Enrollment	Full-time Enrollment	Fall-to-spring Retention	Fall-to-fall Retention	Across-year Either Term Retention	Credits Attempted	Credits Earned
4 years prior	-4.24 ppt (2.27 ppt)	0.24 ppt (1.42 ppt)	-3.29 ppt+ (1.50 ppt)	-1.64 ppt (1.32 ppt)	-1.25 ppt (1.34 ppt)	-0.45 (0.40)	-0.23 (0.33)
3 years prior	-2.93 ppt (1.57 ppt)	-0.07 ppt (1.07 ppt)	-0.74 ppt (1.12 ppt)	0.16 ppt (0.93 ppt)	0.48 ppt (0.88 ppt)	-0.27 (0.28)	-0.20 (0.22)
2 years prior	-1.63 ppt (0.93 ppt)	-0.08 ppt (0.73 ppt)	-0.42 ppt (0.74 ppt)	0.17 ppt (0.59 ppt)	0.34 ppt (0.56 ppt)	-0.16 (0.16)	-0.10 (0.12)
Intervention year	1.71 ppt* (0.54 ppt)	0.75 ppt (0.43 ppt)	2.47 ppt* (0.67 ppt)	1.42 ppt* (0.57 ppt)	2.31 ppt** (0.57 ppt)	0.40* (0.13)	0.47** (0.10)
1 year post	1.91 ppt (1.02 ppt)	0.82 ppt+ (0.40 ppt)	2.47 ppt* (0.89 ppt)	0.45 ppt (0.86 ppt)	0.86 ppt (0.83 ppt)	0.33+ (0.16)	0.44* (0.15)
2 years post	2.96 ppt+ (1.44 ppt)	0.87 ppt (0.57 ppt)	2.56 ppt* (0.92 ppt)			0.42+ (0.20)	0.48* (0.18)
F-statistics	1.31	0.42	13.25	17.96	22.28	1.15	1.22
P-value	0.36	0.75	0.01	0.002	0.001	0.40	0.38
F-statistics							
Observations	115,435	115,435	115,435	80,733	80,733	115,435	115,435

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Results exclude the 2022 cohort and pre-2020 periods. Clustered standard errors at the application campus level are in parentheses. All models control for the student covariates listed in Table 1. F-statistics are used to test for the joint statistical significance of the pre-periods.

Appendix Table 3. Sensitivity Analysis - ITT and TOT effects on enrollment, retention, credits attempted, and credits earned including the 2022 cohort

Outcome	Observations	Comparison Mean	Adjusted Treatment Mean	ITT	Control Complier Mean	Adjusted Taker Mean	TOT
Enrollment	272,621	36.36%	39.41%	3.05 ppt (1.93 ppt)			
Full-time enrollment	272,621	21.91%	23.18%	1.27 ppt (0.72 ppt)			
Fall-to-spring retention	272,621	21.24%	23.18%	1.94 ppt (1.13 ppt)	21.23%	68.12%	46.88 ppt+ (26.24 ppt)
Fall-to-fall Retention	237,919	15.71%	16.19%	0.48 ppt (0.93 ppt)	15.71%	26.42%	10.71 ppt (19.50 ppt)
Across-year either term retention	237,919	19.27%	20.62%	1.35 ppt (1.05 ppt)	19.26%	49.25%	29.99 ppt (22.55 ppt)
Credits attempted	272,621	6.18	6.65	0.47 (0.27)	6.18	17.63	11.45+ (6.33)
Credits earned	272,621	4.26	4.75	0.50+ (0.21)	4.25	16.31	12.05* (5.09)

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Clustered standard errors at the application campus level are in parentheses. All models control for the student covariates listed in Table 1.

Appendix Table 4. Placebo test - ITT effects on enrollment, retention, credits attempted, and credits earned for students who pursue basic certificates or adult education courses

Outcome	Observations	Comparison Mean	Adjusted Treatment Mean	ITT
Enrollment	84,569	47.08%	45.95%	-1.13 ppt (3.16 ppt)
Full-time enrollment	84,569	5.28%	5.20%	-0.08 ppt (1.13 ppt)
Fall-to-spring retention	84,569	25.26%	24.58%	-0.68 ppt (0.02 ppt)
Fall-to-fall retention	70,522	9.41%	10.18%	0.77 ppt (2.80 ppt)
Across-year either term retention	70,522	13.79%	14.23%	0.44 ppt (2.87 ppt)
Credits attempted	84,569	3.91	3.64	-0.27 (0.31)
Credits earned	84,569	3.31	3.08	-0.24 (0.25)

*Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Results exclude the 2022 cohort. Clustered standard errors at the application campus level are in parentheses. All models control for the student covariates in Table 1.*