Empowering Futures:

A Quasi-Experimental Program Evaluation of Chicago Scholars

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About the University of Chicago Inclusive Economy Lab

For generations, government policies and institutional structures of inequity have excluded many Americans—notably Black and Hispanic communities—from opportunities for social mobility through the vehicles of education, employment, and wealth creation. Ending intergenerational poverty and building an inclusive economy—one that provides real financial stability and economic opportunities for all communities—requires collaboration across sectors, as well as scientific evidence about what levers have the greatest impact on opportunities for economic stability and mobility. Traditional research can take years, and the results often do not reach those who need the information most—the people living with and working on these issues. The UChicago Inclusive Economy Lab solves this by working with policymakers, organizations, and communities to identify their most urgent and pressing challenges, co-generate evidence about what works, and translate that evidence into real policy changes that expand economic opportunity for communities that have experienced disinvestment.

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Executive Summary

Across the country, systemic inequities such as economic instability, inadequate school funding, and structural racism create significant barriers to college access and success for students from underrepresented and low-income backgrounds. These challenges are compounded by a lack of guidance on the college application process, limited exposure to higher education options, and financial constraints, which can deter even the most capable students from pursuing or persisting in postsecondary education. Without targeted interventions, these students are less likely to enroll in and graduate from institutions that align with their academic and career goals, further perpetuating cycles of disadvantage.

The Chicago Scholars program addresses these barriers by providing comprehensive support to first-generation and underrepresented students throughout their college and career journeys. Designed to empower Chicago's most promising students, the program offers a structured seven-year pathway that begins in high school and extends through college graduation and into the workforce. Chicago Scholars supports students by focusing on three primary goals in its programming. First, Chicago Scholars seeks to get its high school participants to both enroll and matriculate into the most selective colleges that match participant abilities. Second, the program aims to bolster persistence and graduation rates among college participants. Lastly, the program assists participants graduating from college in facilitating the transition into careers or post-graduate programs. Through college counseling, leadership development, and mentorship, Chicago Scholars equips students to navigate the complexities of the college admissions process, secure meaningful postsecondary placements, and thrive academically and professionally. By fostering a community of scholars committed to achieving their goals, the program not only enhances individual outcomes but also contributes to broader efforts to increase educational equity and social mobility.

The University of Chicago Inclusive Economy Lab partnered with Chicago Scholars and Chicago Public Schools (CPS) to examine the effectiveness of the Chicago Scholars program and provide empirical evidence about whether the elements designed to enhance college success had a meaningful impact on the students who participated in the program. In pursuit of this, the Inclusive Economy Lab conducted a quasi-experimental impact evaluation, looking at Chicago Scholars between the years of 2009 and 2019. Some 3,569 Chicago Scholars were included in this analysis. Over the course of this work, we sought to answer the following research questions:

- What is the effect of participation in the Chicago Scholars program on students' high school academic outcomes?
- What is the effect of participation in the Chicago Scholars program on students' enrollment in a postsecondary institution?
- What is the effect of participation in the Chicago Scholars program on college persistence and graduation?

To measure the program's impact, the research team used a propensity score matching (PSM) technique to understand what would have happened to each program participant if they had not joined the program. PSM was used to identify students in CPS with similar observable characteristics to those of Chicago Scholars. This process attempts to ensure that any differences in outcomes between the groups can be attributed to participation in the Chicago Scholars program, controlling for the impact of other observable factors for which data were available. Note that propensity score matching cannot rule out unobservable differences (e.g.,

intrinsic motivation or student preferences) between Chicago Scholars and non-Chicago Scholars.

This report shares the results of the PSM analysis and offers insights into the program's effectiveness in achieving positive academic outcomes for Chicago Scholars. Comparing Scholars to similar students who did not participate in the program, we looked at Chicago Scholars' effect on the following student outcomes:

- High school senior year attendance rate, GPA, and graduation
- Direct college enrollment, and whether a student met or exceeded college enrollment in a match institution
- Year-to-year persistence
- College graduation

Our study found evidence that the Chicago Scholars program leads to significant, positive improvements on enrolling in an institution that is an academic match or overmatch, persistence, and graduating college with a bachelor's degree, and almost all academic outcomes of interest.

Table 1. Summary of statistically significant findings

Outcome	Estimated Chicago Scholars Effect
Attendance Rate (Senior Year)	-0.18 ppts
Unweighted GPA (Senior Year)	-0.01 grade points
High School Graduation	+1.07 ppts ***
Number of College Applications Submitted	+3.23 ppts ***
Direct College Enrollment	+5.85 ppts ***
Met or Exceeded Match	+14.06 ppts ***
Year-To-Year Persistence	+11.03 ppts ***
College Graduation (Bachelor's or Associate)	+10.19 ppts ***
College Graduation (Associate)	-3.77 ppts ***
College Graduation (Bachelor's)	+13.19 ppts ***

*Note: * p<0.05 ** p<0.01 *** p<0.001; Smaller p values indicate higher levels of statistical significance, though industry standard states any p value below .05 is significant.*

This report and its key findings aim to shed light on the Chicago Scholars program model and its influence on student success.

Introduction

In Chicago and across the nation, inequitable education systems disproportionately hinder students of color and students from low-income backgrounds. Community-level disinvestment, segregation, and other discriminatory practices have created differential access to academic resources and impact students' college enrollment and completion rates. Regarding income, 62 percent of students from the highest income quartile earn a bachelor's degree by age 24, whereas just 13 percent of students in the lowest income quartile do the same (Cahalan et al., 2019). Due to historical racial discrimination in housing and home mortgage rates (Yinger, 1998; Ross & Yinger, 1999), hiring decisions (Bertrand & Mullainathan, 2004; Pager, 2007) and employment (Carnevale, Strohl, Gulish, Van Der Werf, & Campbell, 2019), families with low incomes are disproportionately made up of racial or ethnic minorities and face similar educational disparities. As of 2017, 64.3 percent of White students earned a bachelor's degree within six years of enrolling full-time in a four-year institution, compared to 55 percent of Latinx students and 39.8 percent of Black students (National Center for Education Statistics, 2017). In Chicago Public Schools, where the majority of students are Black or Latinx and from low-income families, only about 18 percent of students will earn a bachelor's degree within 10 years of high school (Chicago Public Schools, 2021; Nagaoka, Seeskin & Coca, 2016).

These gaps in educational attainment exist for a variety of reasons. On an individual level, higher-income families have the resources to invest more in their children's early education. Between birth and age six, wealthier children will have spent as many as 1,300 more hours than low-income children on enrichment activities such as books, computers, childcare, and private schooling (Duncan & Murnane, 2011), which impacts students subsequent reading skills in middle and high school years (Snow, 2002). This gap in spending between affluent and low-income families has tripled in the last few decades, alongside comparable growth in income inequality and in the academic achievement gap (Duncan & Murnane, 2011; Kaushal, Magnuson, & Waldfogel, 2011; Reardon, 2011). Additionally, research shows that higher cognitive skills at the kindergarten level strongly predict later academic achievement (Duncan et al., 2007; Nagaoka et al., 2015). As a result, children at different income levels begin their education with different resources and advantages, which accumulate throughout their academic career and have implications for their long-term educational attainment. By the time students reach high school and begin considering postsecondary education, those from affluent families will have had stronger academic preparation as well as the support of counselors, standardized test prep courses, tutors, and other advantages that students from low-income families may not be able to afford (Bryan et al., 2011; Buchmann et al., 2010). In this way, the advantages accruing to children from higher-income backgrounds compound over time and heavily contribute to their preparation for success in a college environment.

On a systemic level, school funding is primarily based on local property taxes (Adamson & Darling-Hammond, 2012), which has led to disparities in school resources and quality on racial and economic lines. For example, while underfunded school districts often serve students with higher needs, constrained resources lead them to hire teachers with lower qualifications who exhibit higher turnover (Adamson & Darling-Hammond, 2012). These funding disparities affect students differentially by race and income, with districts serving the highest proportions of minority and low-income students having about twice as many uncredentialed and inexperienced teachers as those serving the fewest (Adamson & Darling-Hammond, 2012). This has detrimental impacts for students' academic performance, as teachers' academic background, certification status, and experience significantly affect their students' learning gains (Betts, Rueben, & Danenberg, 2000; Boyd et al., 2006; Clotfelter, Ladd, & Vigdor, 2007; Darling-

Hammond, Holtzman, Gatlin, & Heilig, 2005). In addition to teacher qualifications, schooling resources like smaller class sizes, additional instructional supports, and early childhood programs are positively associated with student outcomes but are underfunded throughout low-income school districts (Baker, 2017). Regarding college preparation, students from middle- and upper-class families are more likely to attend highly resourced schools that have higher expenditures per pupil, smaller student-counselor ratios, and a wide array of academically rigorous courses that can prepare students for college (Charles, 2003; Kozol, 1991; Lareau & Goyette, 2014; Ostrander, 2015; Vigdor & Ludwig, 2008).

First-generation college students face additional barriers to college readiness and access. For example, families of first-generation students may not have the experience, connections, or social capital necessary to help their children navigate an often complex and confusing college application process (Ceja, 2006; Coleman, 1988; Dyce, Albold, & Long, 2013; Kim & Schneider, 2005; Pérez & McDonough, 2008; Perna & Titus, 2005). When choosing institutions to apply and enroll in, students also often factor in the advice of peers, siblings, and relatives, leaving first-generation students unable to lean on the guidance and support of immediate family (Pérez & McDonough, 2008). Once in college, first-generation students are more likely to feel out of place compared with peers coming from college-educated families, which hinders an important sense of social belonging long associated with persistence through graduation (Housel & Harvey, 2009; Johnson, Richeson, & Finkel, 2011; Ostrove & Long, 2007; Banks & Dohy, 2019; Schmader, Johns, & Forbes, 2008; Steele & Aronson, 1995; Walton & Brady, 2017). Many students also face a number of barriers regarding academic preparation. For example, first-generation students are more likely to enroll in remedial coursework, are less confident in their academic abilities, and are less likely to ask for help from faculty (Jenkins et al., 2009; Riehl, 1994). Financial barriers also lead many students to work part-time or full-time during college, which contributes to higher levels of stress that can negatively impact students' academic performance (Pascarella et al., 2004; Peltz et al., 2020). Combined, these factors lead first-generation students to receive lower grades and drop out at higher rates than students who have at least one parent with a four-year degree (Pascarella et al., 2004; Sirin, 2005).

These patterns show that the exclusion of low-income students, first-generation students, and students of color from higher education reflects discriminatory policy rather than students' goals or academic aspirations. In fact, many students across a variety of backgrounds express a desire to pursue higher education, with Chicago Public Schools recently reporting that nearly 70 percent of high school freshmen voiced a desire to obtain a bachelor's degree (Nagaoka, Seeskin, & Coca, 2016). Such aspirations are promising, as research overwhelmingly shows that attaining a postsecondary degree can support greater social mobility and help students earn a family-sustaining wage later in adulthood. For example, when comparing the median annual earnings of full-time workers aged 25 to 32, those with a bachelor's degree earned $15,000 more annually than those with a two-year degree and $17,000 more than those with just a high school diploma (Morin, Brown, & Fry, 2014). Additionally, while about 55 percent of children in the lowest income quintile will move into a higher income quintile in adulthood with only a high school diploma, this increases to 84 percent for those with a college degree (Haskins, Isaacs, & Sawhill, 2008). Given the economic benefits of earning a college degree but the inequitable access to them, many organizations in Chicago have prioritized supporting first-generation, low-income, and students of color through their postsecondary careers. With the proper supports, resources, and guidance, these organizations hope to aid underrepresented students in attending, and persisting, through college and attaining the social and economic mobility that accompanies a college degree.

THE CHICAGO SCHOLARS MODEL: CORE PROGRAM COMPONENTS

Chicago Scholars is a seven-year program that selects, trains, and mentors academically ambitious first-generation students from under-resourced communities to complete college and become the city's next generation of leaders. The program prioritizes student matriculation to the most selective colleges that best match their talents and abilities. Once in college, Chicago Scholars provides support for students to persist through graduation and transition successfully into careers or post-graduate programs.

In addition to counseling and mentorship, Chicago Scholars works with a number of partners to ensure students have access to a comprehensive support system. These partnerships include community-based organizations, colleges and universities around the United States, Chicago businesses, and high schools across the city. By expanding the program's reach, providing funding opportunities, and connecting students with internships and jobs, these partnerships support student outcomes and allow the program to have a greater impact on the city of Chicago. Since 2005, Chicago Scholars has become the largest college access and success program in Chicago, serving more than 5,000 scholars and alumni each year.

During the time period of the study, Chicago Scholars operated under three core model components: College Access, College Success, and College to Careers. The College Access stage begins during students' junior year of high school, when they apply to the Chicago Scholars program. Applications are considered holistically, prioritizing not just a students' academic profile but also their character, leadership qualities, academic goals, and potential contribution to the Chicago Scholars community. Once accepted into the program, students receive continuous support through college and career planning, including support as they begin college applications, enroll in the best match college of their choice, and begin building their leadership skills. This includes specialized college access workshops, eight one-on-one counseling sessions with a college counselor, and group mentorship cohorts with three or four experienced adult mentors and six to seven Scholar peers.

Through this comprehensive support system, scholars submit up to six applications to Chicago Scholars' nearly 200 college partners, in addition to any other institutions they choose. In October, Chicago Scholars hosts an annual Onsite Admissions Forum connecting students with admissions representatives from more than 180 colleges and universities. During this forum, scholars can complete up to one-on-one interviews with admissions officers and receive early admissions decisions, scholarships, and evaluation feedback, giving scholars admission into their top-choice colleges long before most students have applied. Once accepted into their postsecondary institutions of choice, Chicago Scholars then supports scholars through the financial aid and enrollment processes. While the program itself does not award financial scholarships, it provides a variety of internal scholarships available exclusively for Chicago Scholars based on students' interests, intended career field, and ethnic background. Additionally, select College Platinum Partners pledge to provide Chicago Scholars with full demonstrated financial need through graduation, including funding to visit campuses and to participate in campus leadership initiatives. Scholars facing gaps or emergencies can apply for gap scholarships, emergency funding, travel vouchers, or grants to cover unexpected costs.

At the end of their senior year of high school, scholars begin the College Success portion of the program focusing on the transition into college and persistence through college graduation. This phase begins with an annual College Transition Retreat connecting scholars with peers from their region and matching freshman scholars with peer mentors to help them through the critical first year on campus. In addition to peer support, the Chicago Scholars team stays connected to

scholars via phone, email, text messages, and social media. The College Success Team also embarks on a series of campus visits each fall, where they organize social events for scholars and meet one-on-one. This type of comprehensive support allows scholars to use supportive relationships and leadership development opportunities to advocate for themselves and use their networks while in college.

Lastly, the College to Careers portion of the program allows scholars to access career planning and leadership training to successfully transition into the workforce. Through Chicago Scholars' network of partner organizations and businesses across the city, scholars have access to job shadowing, internships, and full-time employment opportunities. Scholars also have access to career workshops, networking events, and one-on-one coaching sessions to explore career paths, write strong resumes and cover letters, and build interview and networking skills. For more individualized support, college juniors, seniors and recent graduates can request a Career Mentor— a professional in their industry of choice— to guide them through career research and planning and connect them with opportunities. These comprehensive resources help scholars entering the workforce to grow their networks, strengthen their skills, and ultimately become leaders in their fields.

Prior Suggestive Evidence of Chicago Scholars' Effectiveness

Previous analysis of the Chicago Scholars program model shows promising results. In a recent annual report, Chicago Scholars (2020) shared that 96 percent of scholars enroll in college, substantially higher than the 62.7 percent college enrollment rate among high school graduates nationwide (U.S. Bureau of Labor Statistic, 2021). Scholars also graduate from college at a rate of 83 percent compared to the 48 percent college graduation rate among all Chicago Public School students. Graduated scholars are finding employment in fields like education, STEM, human services, health sciences, and finance, and are on track to become industry professionals and the next generation of Chicago's leaders. Scholars are also incredibly diverse, both racially and geographically. New scholars in the class of 2025 hailed from 110 high schools and 75 neighborhoods across the city, and 96 percent of these scholars were students of color.

Student feedback about the Chicago Scholars program is also consistently positive. A recurring theme is the uniqueness of the program's social supports, with one scholar saying:

> My mentor is always looking out for me, and my cohort and it feels great to know that I'm in a community that's distinct from any other in Chicago (Chicago Scholars, 2020).

This type of support extends from high school to college and beyond. One scholar shared that:

> After I got into college, I felt that my role as a Chicago Scholar was over. But, after our graduation, Chicago Scholars faculty made sure to tell us about all of the resources and opportunities we had access to while actually in college and beyond (Chicago Scholars, 2022).

In addition to academic support, Chicago Scholars offers guidance through student-led projects and leadership initiatives. For example, a pair of Chicago Scholars started an organization highlighting the importance of investing in BIPOC communities and used their connections at

Chicago Scholars to secure grant funding. Reflecting on the experience, one of the founders said that:

> [Chicago Scholars] mentored me throughout the planning and implementation of March for the Hood. Had it not been for them, we wouldn't have really known how to approach making my vision a reality (Chicago Scholars, 2020).

Additionally, 77 percent of Chicago Scholars give back to their communities, more than double the 30 percent national average. Alumni shared that Chicago Scholars connected them with opportunities and promoted community involvement, with one sharing that, "Networking, giving back, and being a person who is civically engaged in our community— that's what Chicago Scholars meant to me" (Chicago Scholars, 2020).

While descriptive statistics cannot show causal impact, feedback from students and alumni does show that scholars value the support Chicago Scholars provides, both academically and in their own engagement efforts, and use their education to give back to their communities. Building on previous descriptive results, this study will use quasi-experimental evidence to estimate the causal effectiveness of the Chicago Scholars program model.

Methodology

This section provides an overview of the methodological approach used to examine the impact of Chicago Scholars' programming on high school and college outcomes and includes discussion of the questions used to guide the research, analyses conducted, data sources used, analytic sample and overview of participants.

Research Questions

The Inclusive Economy Lab and Chicago Scholars collaborated to examine the effectiveness of Chicago Scholars programming on high school and college academic outcomes. The evaluation is designed to answer the following questions:

- What is the effect of participation in the Chicago Scholars program on students' high school academic outcomes?
- What is the effect of participation in the Chicago Scholars program on students' enrollment in a postsecondary institution?
- What is the effect of participation in the Chicago Scholars program on college persistence and graduation?

High school outcomes included senior year attendance rate, GPA, and high school graduation. College outcomes included direct enrollment in a two-year or four-year institution, meeting, or exceeding enrollment in a match institution, year-to-year persistence, and college graduation.

Analytic Approach: Quasi-Experimental Program Evaluation

The most rigorous way to estimate causal effects of a program is through a randomized controlled trial (RCT). To measure a program's impact, we need to understand what would have happened to each program participant if they had not joined the program. In an RCT, program participation is assigned randomly and is the sole determinant of who is in the treatment group (receiving the program) and in the control group (not receiving the program). Differences between the study participants are evenly distributed among the treatment and control groups given the random, unbiased assignment, so the groups are seen as equal in expectation at the start of the program. This allows any differences in outcomes between the two groups to be attributed to the program, controlling for the impact of other factors. However, RCTs are not always a feasible way to evaluate a program since they are typically time-intensive and can be costly to conduct with fidelity. There are also ethical considerations associated with RCTs, however, when conducted with equipoise and sensitivity can provide powerful evidence on program impacts. As such, a quasi-experimental evaluation (QEE) is designed to mimic experimental evaluations like RCTs by matching Chicago Scholars participants with similar non-participants based on observable pre-treatment characteristics captured in the CPS administrative data.

Propensity Score Matching (PSM)

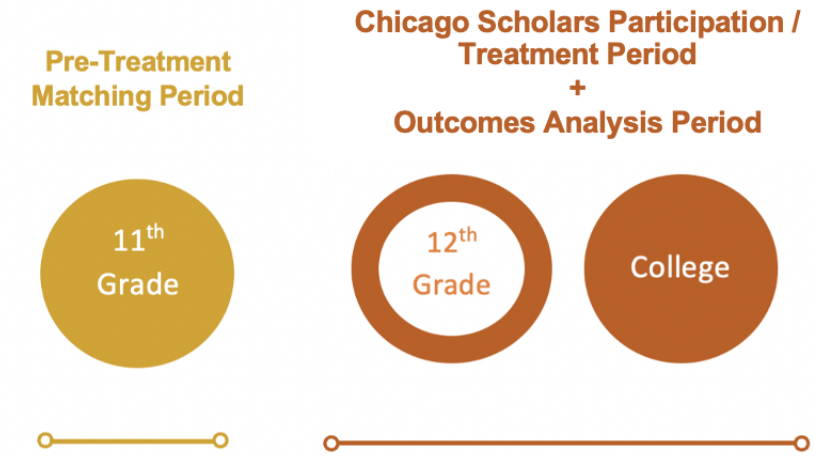
The QEE method used for this analysis is a statistical technique called propensity score matching (PSM). PSM is an alternative approach to isolating the effect of a program when randomization is not feasible. Using readily available data, students who received treatment are matched with students who did not receive treatment. Apart from being a sound research

method, a PSM can be completed in a much shorter timeframe than a traditional RCT due to its use of retrospective data.

The intention behind a PSM is to create a comparison group that serves as the counterfactual to the treated sample – that is, to approximate the experiences of treated individuals had they not received treatment. With an appropriately constructed sample, we can estimate program impacts through the differences in outcomes between the treated group and the comparison group. For this analysis, the treated group consists of students who participated in the Chicago Scholars program and our constructed counterfactual group consists of students who were similar to treated students based on observable pre-treatment characteristics. Students were matched on demographic, academic, and geographic characteristics. To account for differences from year-to-year and school-to-school, we make sure that treated students are matched to comparison students within their same high school class and school. In addition, we omit from the comparison group any students who were served by alternative college access providers for which we have data.

Figure 1 illustrates the QEE process we used to determine program effects. Chicago Scholars programming begins for students as seniors onward to college. We used 11th grade pre-treatment characteristics to match Chicago Scholars to comparable students in CPS. Our high school and college outcomes are derived from the periods after students have received Chicago Scholars programming.

Figure 1. Primary analysis: Program participation periods and outcomes analyses



The first step involved constructing a dataset of baseline characteristics that occurred prior to participating in the Chicago Scholars program for both actual Chicago Scholars and their potential counterfactuals. To construct the counterfactual group, the least absolute shrinkage and selection operator (LASSO) method was utilized for feature selection and regularization to determine the set of baseline characteristics that best explained the likelihood of being a Chicago Scholar. We then estimate this likelihood, called a propensity score, for our full sample of Chicago Scholars and their potential counterparts. Finally, we match each Chicago Scholar to a single comparison participant based on similarity of propensity scores and the strict conditions of matching exactly within school and their 11th grade school year. This matching occurs with replacement, meaning that individuals in the comparison group are allowed to match with

multiple participants across the treatment group. This increases the possibility of producing a well-balanced sample and reduces the likelihood of Chicago Scholars not finding a match.

Because the purpose of matching is to create a counterfactual sample that is similar in baseline characteristics to Chicago Scholars participants, we expect similar averages and percentages across our selected baseline covariates. These data are summarized in Table 1.

Table 2. Variables used for propensity score matching

Variable	Matched Comparison Group	Chicago Scholars
ACT Score	12.72	12.99
Age	17.33	17.35
Annual Enrollment Days	177.70	177.60
Closed School	0%	0%
College Graduation Rate	26.53%	26.36%
Cumulative GPA (9th through 11th)	3.26	3.32
Cumulative GPA (9th through 12th)	3.46	3.56
English as a Second Language (ESL) Status	0.84%	1.43%
Ethnicity (Asian)	8.83%	9.50%
Ethnicity (Black)	31.33%	31.58%
Ethnicity (Hispanic)	52.10%	49.40%
Ethnicity (Other)	1.09%	1.71%
Free and Reduced Lunch Status	84.20%	82.80%
GPA (11th Grade)	3.15	3.23
Gender (Female)	66.90%	65.10%
In-school Suspensions (11th Grade)	0.03	0.03
In-school Suspensions (12th Grade)	0.04	0.03
Individualized Education Plan Status	0.48%	0.92%
Junior year attendance rate	96.44%	95.99%
Median Household Income	$52,941.44	$52,771.32
Missing ACT Indicator	0.52	0.52
Missing Ethnicity Indicator	0.00%	0.06%
Out-of-school Suspensions (11th Grade)	0.09	0.07

Variable	Matched Comparison Group	Chicago Scholars
Out-of-School Suspensions (12th Grade)	0.09	0.04
School Type: Contract	0.00%	0.00%
School Type: District	75.00%	75.00%
School Type: SAFE	0.00%	0.00%
School Type: STEM	0.00%	0.00%
Student School Grade Repeater Status	0.81%	0.79%
Tardy (11th Grade)	0.98	0.84
Tardy (12th Grade)	1.22	0.94
Temporary Living Situation Status	1.96%	2.05%
Total SAT Score	535.20	541.00

The matching process resulted in balance across nearly all baseline covariates, aside from two unbalanced covariates which were above a threshold of .1 standardized mean differences between the treatment groups. These covariates were cumulative GPA through 11th grade (SMD of .103), and junior year attendance rate (SMD of -.124). Because these baseline covariates were unbalanced, we controlled for these differences by including them in the linear regression models used to estimate program impact. Full balance testing results which include standardized mean differences (SMD) and variance ratios (VR) can be found in Appendix D, and demonstrate that we were able to identify a comparison group that closely resembled the Chicago Scholars across all available observable pre-treatment characteristics.2

The primary analysis of the matched sample was conducted using a linear regression model with fixed effects at the high school level controlling for the variables used in the propensity score match from the year directly prior to each student's senior year. We are only able to match students based on the available observable characteristics, such as demographics or pre-treatment academic data. As such, there is a possibility that effects could actually be driven by unobservable characteristics at baseline between Chicago Scholars and comparison group students (Harding, 2003; Imbens, 2014; Athey & Imbens, 2017). For example, students with higher levels of motivation, an unobservable characteristic we have no access to, may be more inclined to enter into the Chicago Scholars program. Conversely, highly motivated students who, due to extenuating circumstances such as familial obligations that interfere with academic pursuits, also an unobservable characteristic, may be less inclined to enter into the Chicago Scholars program. While we cannot rule out the possibility that unobservable differences between the groups account for the differences in outcomes that we observe, we aim to provide the best suggestive evidence of Chicago Scholars programming despite the unavoidable limitations.

Data Sources

The Inclusive Economy Lab utilized several data sources to analyze Chicago Scholars' effect on students' high school and college outcomes: Chicago Scholars data on program participation,

Chicago Public Schools administrative data, and data from the National Student Clearinghouse (NSC). We briefly describe each data source and linkage process below.

Chicago Scholars Program Participation

Chicago Scholars collects data on its participants' demographics, program engagement, and college applications, and provided the Inclusive Economy Lab with participant data for 4,076 Scholars who participated in the program between 2008 and 2019. The data provided included the names of all students admitted into the program from 2008 onwards, and full applications from all admitted students from 2016 to 2019.

CPS Administrative Data

CPS maintains data from all active and inactive students who were ever enrolled in CPS schools since 2009. The research team used this data set to measure students' senior year attendance, GPA, and high school graduation. We also used this data set to measure the number of college applications students submitted by drawing on data from Naviance, a tool used district-wide by CPS to help students navigate their post-secondary college and career plans and provides the most comprehensive data on which colleges students applied to and whether they were accepted. CPS annual attributes data prior to 2009 were unavailable and, as such, the 2008 cohort could not be linked to relevant academic or additional support data. CPS data are unavailable for students attending private schools or who are homeschooled and are limited for students attending charter schools. To prevent misinterpretation of CPS-based metrics, the research team includes the percentage of participants who are not successfully found in the CPS data in the following section.

National Student Clearinghouse (NSC)

NSC data provides term-level enrollment data for over 90 percent of institutions of higher education in the United States and over 99 percent of four-year public universities. CPS contracts with NSC to receive data on all district graduates. As such, NSC data was used to measure direct college enrollment, whether a student met or exceeded enrollment in a match institution, year-to-year persistence, and college graduation.

Data Linkage and Matching Process

The participant pool began with 4,076 Scholars of whom were reflected in the participant data received from Chicago Scholars that spanned from 2008-2019. Chicago Scholars data was then linked to CPS administrative data using a probabilistic linking algorithm. When linking with CPS administrative data, the research team used data up through the 2018-19 school year, which provided the most relevant data for a full CPS school year for all Chicago Scholars cohorts. The research team favored a conservative approach to linking, meaning the team only kept links that had over a ninety percent probability of being a correct match. For participants who were linked to more than one observation, the team selected the CPS record that had the most recent exit date. Of the total participants, six percent (n = 242) were not found in the CPS data and thus were unable to be linked. Most unlinked students likely attended private schools, and so their data was not accessible. Other students who were also unable to be linked might have had common names or use alternative names (e.g., nicknames) in a way that interfered with the data linkage. In addition, CPS administrative data prior to 2009 are unavailable, and thus the

2008 cohort could not be linked to annual attribute and relevant academic data. As such, our analysis excludes anyone who participated in the program before 2009.

Despite these limitations, the research team successfully linked 3,834 Chicago Scholars to CPS data, representing about 94 percent of Chicago Scholars of whom we initially received participant data for. During the matching process that followed, which paired Chicago Scholars students with non-Chicago Scholars peers who did not participate in the program, 265 students were excluded from our sample due to overlapping participation in similar college access programs.

3,569 Chicago Scholars were successfully matched and included in the analysis, spanning 11 cohorts who participated in the program between 2009 and 2019. As a result, the full analytic sample includes a total of 7,138 students, which encompasses the 3,569 Chicago Scholars and their matched non-Chicago Scholar peers. This sample represents 130 different high schools throughout the CPS district, with 1,681 students in the sample attending charter schools and the remaining students attending district-run schools. There is at least one Chicago Scholar and one non-Chicago Scholar within each school.

With respect to data availability, all data was available at the cohort level, though that differed at the individual student level. To analyze the effect of Chicago Scholars programming on high school and college outcomes, we used the full participant sample, except for the following impact estimates: (1) Senior year GPA (N = 5392), due to data unavailability for students in Charter schools; (2) Number of college applications submitted (N = 4884), due to unavailable application data prior to 2016; and (3) whether a student met or exceeded match for college enrollment (N = 5534), due to unavailable GPA data for Charter students, as cumulative GPA is used as an input into determining college match scores.

An overview of the linkage and matching results is shown in Table 2 below.

Table 3. Linkage and matching between Chicago Scholars and CPS data

Link Condition	Total Scholars	Percentage of Scholars
All students 2008-2019 (Pre-link)	4076	100.00%
Linked to CPS data (District-run and Charter)	3834	94.06%
Matched and included in the propensity score analysis	3569	87.56%

Key Findings

Summary of Findings

We find that participation in Chicago Scholars leads to significant, positive improvements on nearly all academic outcomes of interest. These findings are very promising and highlight notably strong effect sizes for the outcomes that revealed that Chicago Scholars met or exceeded enrollment in a match institution, persisted, and graduated from college with a bachelor's degree at significantly higher rates relative to similar students who did not participate in the program. These findings are summarized in Table 3. We describe these results in more detail below.

Table 4. Summary of statistically significant findings

Outcome	Estimated Chicago Scholars Effect
Attendance Rate (Senior Year)	-0.18 ppts
Unweighted GPA (Senior Year)	-0.01 grade points
Number of College Applications Submitted	+3.23 ppts ***
High School Graduation	+1.07 ppts ***
Direct College Enrollment	+5.85 ppts ***
Met or Exceeded Match	+14.06 ppts ***
Year-To-Year Persistence	+11.03 ppts ***
College Graduation (Bachelor's or Associate)	+10.19 ppts ***
College Graduation (Associate)	-3.77 ppts ***
College Graduation (Bachelor's)	+13.19 ppts ***

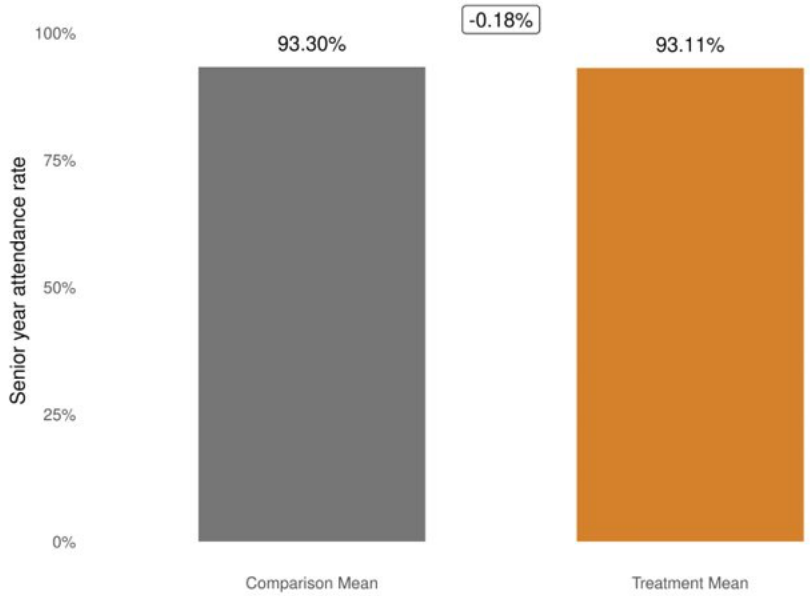
*Note: * p<0.05 ** p<0.01 *** p<0.001; Smaller p values indicate higher levels of statistical significance, though industry standard states any p value below .05 is significant.*

Program Effects on High School and College Outcomes

Participants in Chicago Scholars attended school during their senior year at rates that were not significantly different from their comparison group peers.

The research team analyzed the impact of participating in Chicago Scholars on students' average attendance rates during their senior year of high school. Our findings indicate no significant difference in attendance rates between Chicago Scholars participants and non-participants. Although participants had an average attendance rate that was 0.18 percentage points lower, this difference was not statistically significant, meaning the observed variation could be due to chance rather than an actual program impact. Attendance rate was calculated as the number of days a student attended school divided by the number of days they were eligible to attend, accounting for students who may have transferred schools or had variations in their school schedules. Figure 2 illustrates the average senior year attendance rates for Chicago Scholars and their matched peers.

Figure 3. Average senior year attendance rate

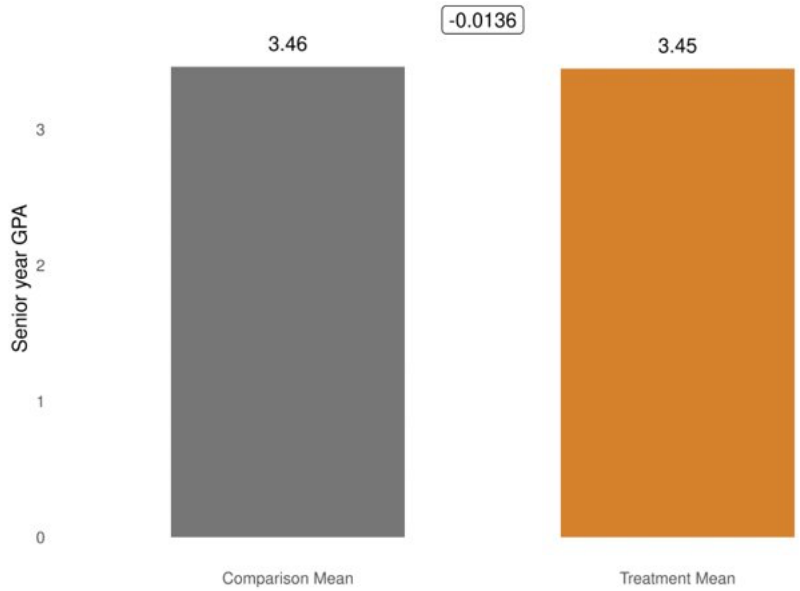


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138.*

Students participating in Chicago Scholars had senior year GPAs that were not significantly different from their comparison group peers.

We were also interested in whether participating in Chicago Scholars programming influenced senior year unweighted GPA. We estimated that, on average, students who participated in Chicago Scholars has GPAs that were .0136 grade points lower than their comparison group peers. However, this difference was not statistically significant and is shown in Figure 3.

Figure 4. Average senior year unweighted GPA

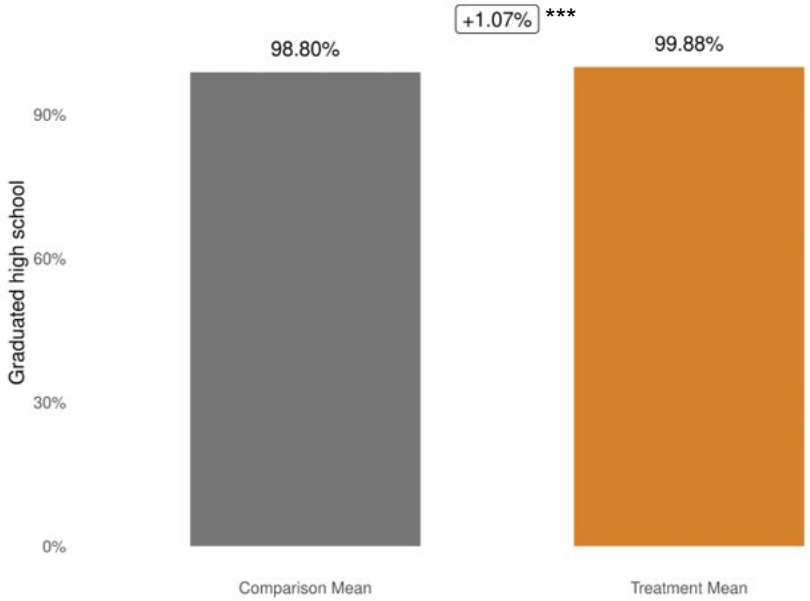


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019; N = 5392).*

Participating in the Chicago Scholars program increased high school graduation by 1.07 percentage points.

An analysis on the effect of Chicago Scholars participation on high school graduation rates showed that among Chicago Scholars, the chances of graduating high school increased by 1.07 percentage points, with 99.88 percent of Chicago Scholars graduating high school compared to 98.80 percent of their comparison group peers. This result is significant at the .001 level and is illustrated in Figure 4.

Figure 5. Average high school graduation rate

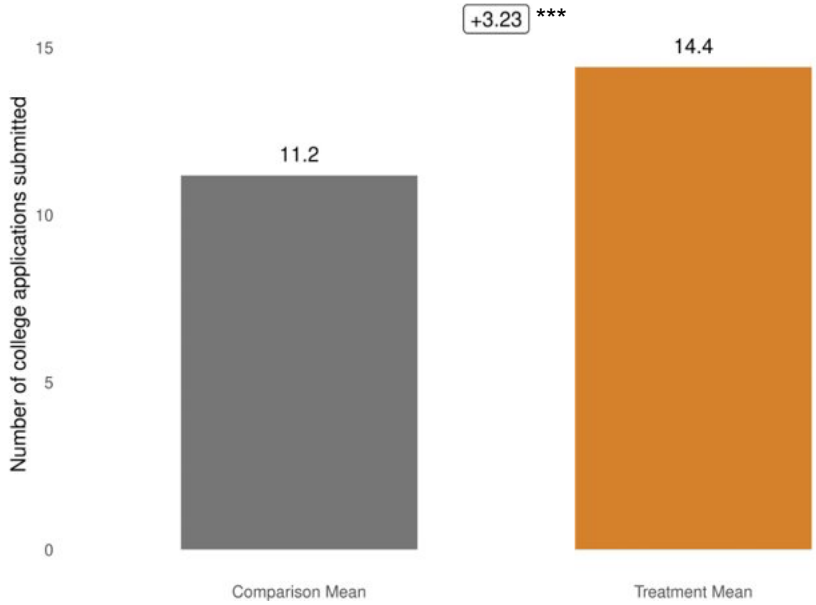


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138.*

Chicago Scholars submit 3.23 more college applications than comparison students.

In our analysis of the number of submitted college applications, we found that Chicago Scholars submitted 3.23 more applications than comparison group students who did not receive Chicago Scholars programming, with Scholars submitting an average of 14.4 applications compared to an average of 11.2 applications submitted by the comparison group. The number of submitted college applications was determined by taking the number of applications submitted to unique institutions by a student's Senior year. Multiple applications to the same institution were only counted once and we focused on the number of schools to which each individual student applied. This result was significant at the 0.001 level and the findings are summarized in Figure 5.

Figure 6. Average number of college applications submitted

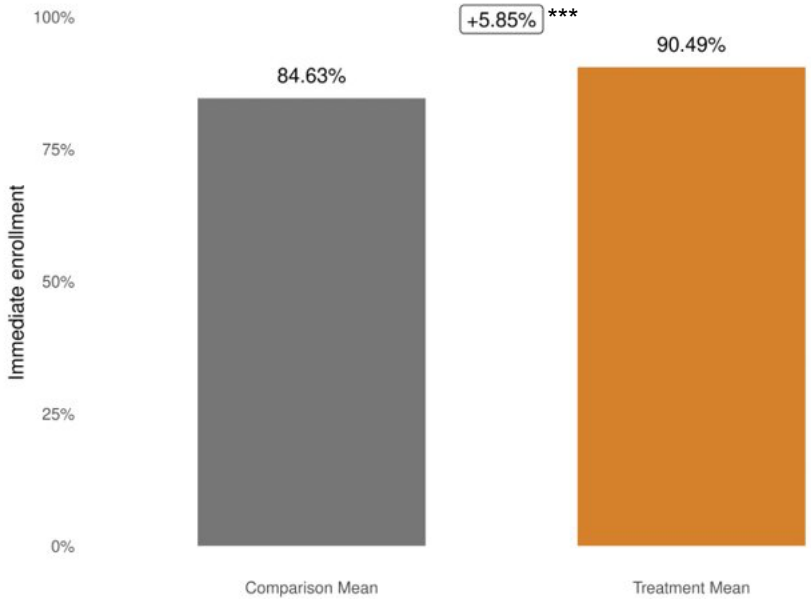


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 4884.*

Participating in the Chicago Scholars program increased direct college enrollment by 5.85 percentage points.

We analyzed program participation on direct college enrollment and found that Chicago Scholars were 5.85 percentage points more likely to be enrolled in a two-year or four-year college in the year after high school than their non-Chicago Scholars counterparts. These results are illustrated in Figure 6. On average, Chicago Scholars enrolled in a postsecondary institution 90.49 percent of the time, while their counterparts enrolled about 84.63 percent of the time. These results were significant at the .001 level.

Figure 7. Average direct college enrollment rate



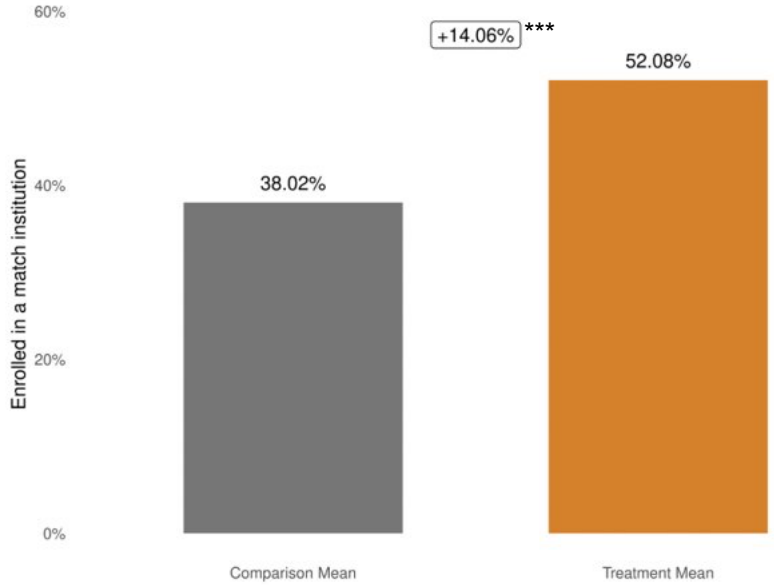
*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138. Direct college enrollment is defined as any enrollment at a two-year or four-year college within one year of expected high school graduation.*

Participating in the Chicago Scholars program increased enrollment in a match institution by 14.06 percentage points.

We also analyzed the impact of the Chicago Scholars program on the likelihood that a student enrolled in a match institution. An academic match between a student and an institution refers to the degree of alignment between the selectivity of an institution and the selectivity of the institution that a student is expected to have access to, based on their high school academic performance. A student's selectivity is determined using a combination of grade point average and standardized test scores, with the determined selectivity level suggesting the category of school which may be an academic fit for the student. Student selectivity levels are determined using CPS guidelines, while academic institutions are assigned their selectivity through the Barron's Selectivity Index (College Division of Barron's Education Series, 2006). Specifically, we are interested in the percentage of students who enrolled in institutions with a rating that met or exceeded the level of the student, focusing on the first institution a student matriculated in irrespective of time.

Our analysis found that Chicago Scholars were 14.06 percentage points more likely to enroll in an institution that met or exceeded their college match. Chicago Scholars enrolled in an academically matched institution 52.08 percent of the time, while their counterparts enrolled in academically matched institutions only 38.02 percent of the time. These results were significant at the .001 level and are summarized in Figure 7.

Figure 8. Average rate of students who met or exceeded "college match" enrollment in an institution

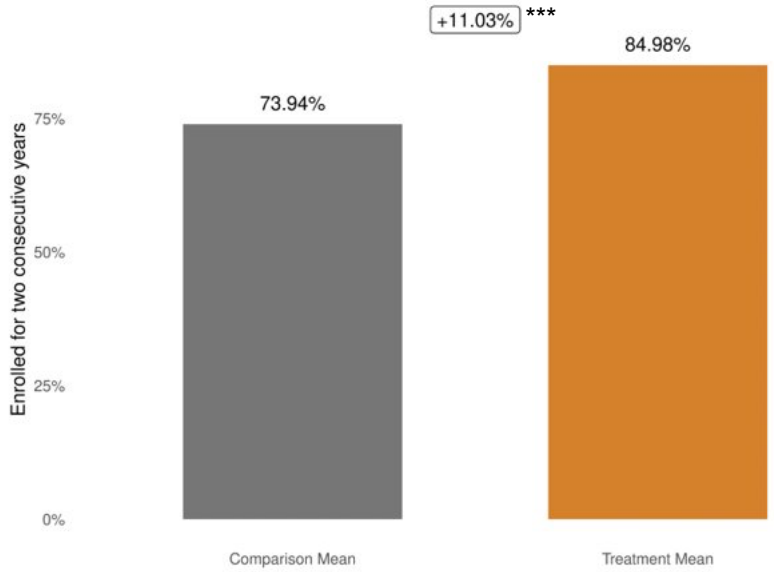


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 5534. Enrollment in a match institution captures when a student's GPA and SAT/ACT scores meet a school's admission criteria and are similar to those of the average incoming freshman in this category of schools.*

Participating in the Chicago Scholars program increased year-to-year persistence by 11.03 percentage points.

Students who remain continuously enrolled throughout their first two years of college are more likely to graduate with a degree or credential (Malone, Mahaffie, Hernandez, Usher & Nagaoka, 2021). Therefore, we analyzed the likelihood that Chicago Scholars and their counterparts were able to persist through two years of college. We define year-to-year persistence as students who directly enroll in a two-year or four-year institution within one year of high school graduation and who are still enrolled at either type of institution at any point throughout the following academic year. Figure 8 illustrates these results. On average, Chicago Scholars were 14.25 percentage points more likely to maintain enrollment in college than non-Chicago Scholars, with Chicago Scholars persisting 84.98 percent of the time while their counterparts persist 73.94 percent of the time. These results were significant at the .001 level.

Figure 9. Average year-to-year college persistence rate

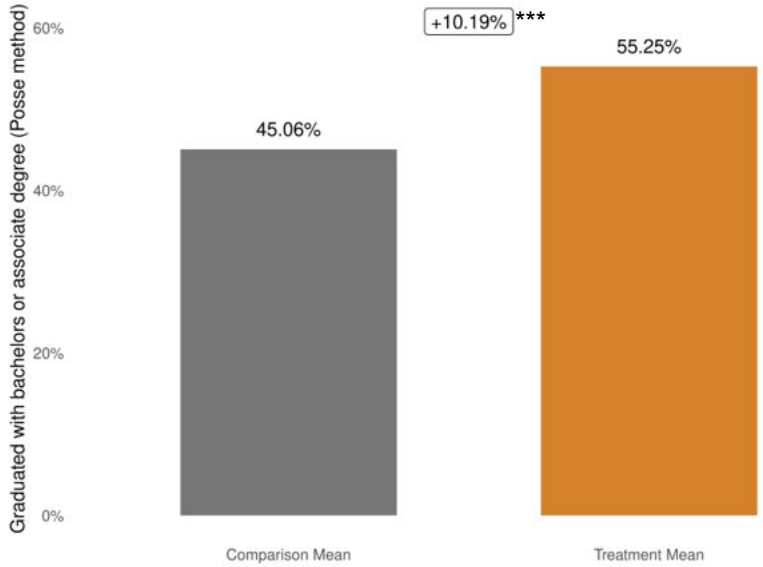


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138; Year-to-year persistence is defined as: students who enroll in a two-year or four-year college within one year of graduating high school and are still enrolled in any college at any point during the following year.*

Participating in the Chicago Scholars program increased college graduation with a bachelor's or associate degree by 10.19 percentage points.

Figure 9 illustrates the rate at which students graduate with either a bachelor's degree or an associate degree within the first six years following high school graduation. Chicago Scholars are 10.19 percentage points more likely than their counterparts to graduate with either degree within this timeframe. Scholars themselves graduated 55.25 percent of the time, while non-Scholars graduated 45.06 percent of the time. This result is significant at the .001 level.

Figure 10. Average college graduation rate with either a bachelor's or associate degree

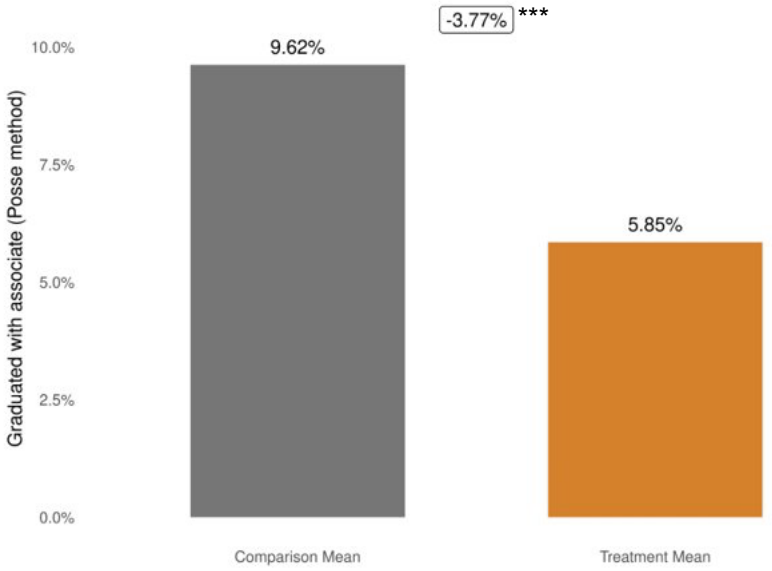


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138; College graduation is defined as students obtaining an associate or bachelor's degree within six years of expected high school graduation.*

Participating in the Chicago Scholars program decreased college graduation with an associate degree by 3.77 percentage points.

We were also interested in the likelihood that Chicago Scholars graduate with an associate degree. We find that Chicago Scholars are 3.77 percentage points less likely than their counterparts to graduate with an associate degree within six years, with only 5.85 percent of scholars attaining an associate degree while non-Scholars attain said degree 9.62 percent of the time. This result is significant at the .001 level and is shown in Figure 10.

Figure 11. Average college graduation rate with an associate degree

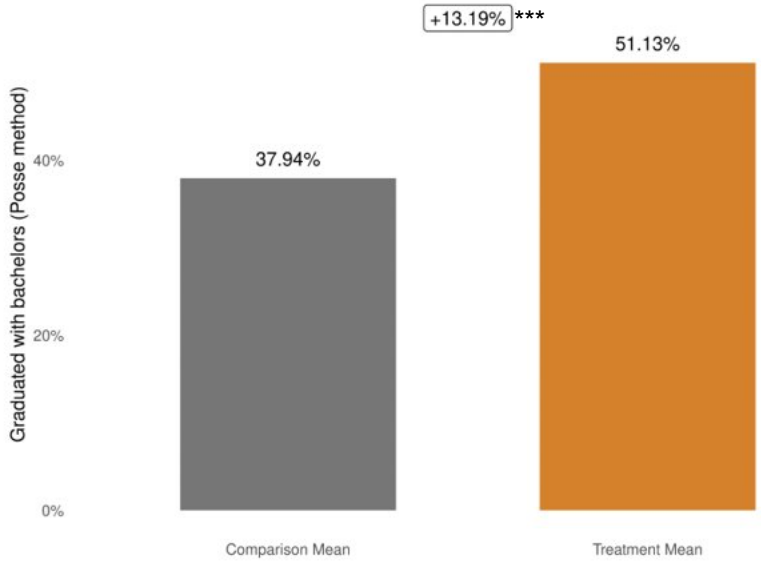


*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138; College graduation is defined as students obtaining an associate or bachelor's degree within six years of expected high school graduation.*

Participating in the Chicago Scholars program increased college graduation with a bachelor's degree by 13.19 percentage points.

Figure 11 demonstrates the likelihood of Chicago Scholars graduating with a bachelor's degree within six years of high school graduation. Our research finds that students who received Chicago Scholars programming graduated with a bachelor's degree 51.13 percent of the time, a difference that is 13.19 percentage points higher than their counterparts. This result is also significant at the .001 significance level.

Figure 12. Average college graduation rate with a bachelor's degree



*Note: * p<0.05 ** p<0.01 *** p<0.001; Source: CPS Administrative Data (2009-2019); N = 7138; College graduation is defined as students obtaining an associate or bachelor's degree within six years of expected high school graduation.*

Discussion

The Chicago Scholars program is a leading college access and success initiative, designed to empower first-generation and underrepresented students from Chicago to achieve their postsecondary goals. Unlike many programs, Chicago Scholars offers a structured seven-year pathway that extends beyond college admission, providing ongoing support through college graduation and into the workforce. This holistic approach is complemented by a strong emphasis on mentorship, leadership development, and individualized college counseling, ensuring students are not only prepared to navigate the college application process but also equipped to thrive in their academic and professional endeavors. By focusing on the specific needs of Chicago's diverse student population, Chicago Scholars addresses systemic inequities and fosters a community of future leaders who are ready to make an impact.

Research consistently shows that first-generation students and students from under-resourced communities face disproportionate challenges in enrolling in and completing college. Chicago Scholars is particularly effective in addressing these barriers through its emphasis on quality college matching, financial literacy education, and leadership development. By helping students identify and enroll in institutions that align with their academic and career goals, the program mitigates common risks such as poor institutional fit and financial strain. Moreover, Chicago Scholars' postsecondary and career support ensures that students are well-prepared to transition from college to meaningful employment, creating opportunities for themselves, strengthening their communities, and advancing long-term economic mobility.

To understand the impact of Chicago Scholars, the Inclusive Economy Lab conducted a QEE using a PSM approach to answer the question, "What is the effect of participation in the Chicago Scholars program on students' high school and college academic outcomes?" Through our analyses, we find that the Chicago Scholars program leads to statistically significant, positive improvements on almost all academic outcomes of interest. This strongly suggests that participating in Chicago Scholars improves student achievement across the following significant high school and college outcomes: high school graduation, direct college enrollment, enrollment in a match or overmatch institution, year-to-year persistence, and college graduation with either a bachelor's or associate degree.

The magnitude of these effects is particularly striking for three of our outcomes of interest: enrollment in a match or overmatch institution, year-to-year persistence, and graduating college with a bachelor's degree. **Chicago Scholars enrolled into an institution that was a match or overmatch at a rate of 14.06 percentage points higher than non-Scholars**. This amounts to a 37 percent increase over the comparison group. This significant finding underscores the critical role of Chicago Scholars' focus on quality college matching, a key component of the program model that aims to align students with institutions where they are most likely to thrive academically and socially. Prior research on college match highlights its importance in promoting persistence and degree attainment, particularly for students from underrepresented backgrounds who may otherwise enroll in less selective institutions with fewer resources (Hallberg, Robinson, Nguyen, Odom & Hernandez, 2023). By equipping students with the knowledge, tools, and guidance needed to identify and gain acceptance to more selective institutions, Chicago Scholars demonstrates the effectiveness of targeted interventions in addressing structural inequities and enhancing postsecondary outcomes.

Chicago Scholars persist in college at a rate of 11.03 percentage points higher than non-Scholars, amounting to a 15 percent increase over the comparison group. This notable finding aligns with prior research highlighting the effectiveness of comprehensive college success programs in mitigating barriers to persistence, particularly for first-generation and underrepresented students. Chicago Scholars' emphasis on individualized college counseling, mentorship, and leadership development likely contributes to these higher persistence rates by fostering a sense of belonging, resilience, and preparedness among Scholars. Moreover, the structured seven-year pathway provided by Chicago Scholars, which extends beyond college enrollment to focus on long-term success, reflects best practices identified in the broader college access literature, underscoring the importance of sustained, holistic support in promoting postsecondary achievement.

Lastly, when looking at college graduation with a bachelor's degree, **Chicago Scholars graduated college at a rate of 13.19 percentage points higher than non-Scholars,** amounting to a 35 percent increase over the comparison group. This finding highlights the profound impact of the program's comprehensive support model and tailored guidance throughout the college journey. Research indicates that structured support systems and a strong sense of community are critical in improving graduation rates for first-generation and underrepresented students. By addressing these barriers through a long-term approach, Chicago Scholars exemplifies how programs can effectively close graduation gaps and foster equitable postsecondary success.

Our findings are consistent with previous studies that indicate a significant positive effect of comprehensive college access and success programming on student achievement (Avery, 2013; McElroy & Armesto, 1998). Upward Bound, a federally funded TRIO program, supports low-income and first-generation students by offering academic enrichment, mentoring, and college preparation services. Research has consistently shown that participation in Upward Bound increases the likelihood of college enrollment and persistence, particularly among students who face systemic barriers to higher education (McElroy & Armesto, 1998). The program's holistic approach, which integrates academic support with personal guidance, aligns with findings that emphasize the importance of multifaceted interventions in promoting postsecondary success.

Similarly, College Possible uses intensive coaching, test preparation, and college application support to help students from underrepresented backgrounds navigate the challenges of accessing and succeeding in higher education. Studies on College Possible demonstrate significant increases in both college enrollment and persistence rates among participants, with a particular focus on creating equitable opportunities for students of color and those from low-income families (Avery, 2013). By combining academic preparation with ongoing mentorship and postsecondary planning, College Possible demonstrates the effectiveness of comprehensive programming in addressing the barriers that disproportionately affect marginalized students. These programs support the broader evidence base that underscores the value of structured, wraparound services in fostering college access and long-term success.

By aligning our results with these studies, we aim to support the strength of Chicago Scholars' impact and highlight the consistency of these outcomes. Through targeted interventions, these programs significantly enhance college outcomes for students and empower them to succeed in their academic environments. The promising results across these studies emphasize the transformative role of comprehensive supports in helping students not only access higher education but also excel throughout their college journeys and into their professional lives.

Next Steps

Since the period covered in this study, Chicago Scholars has taken important steps to evolve its work, introducing initiatives that build on its core strengths while responding to new research, practice, and the changing needs of students. These changes are designed not only to strengthen the college access, persistence, and career transition work already central to the model, but also to extend the organization's reach and deepen its long-term impact.

One such innovation is REACH, a web-based tool that gamifies and demystifies the college and career journey through AI and student insights, making Chicago Scholars' resources available to students beyond its direct program (Reach Pathways, n.d.). The organization has also enhanced opportunities for Scholars to access experiential learning and career exploration earlier in their journeys, expanding paid summer internships, leadership development opportunities, and career planning supports.

Chicago Scholars has also invested in its alumni network, ensuring that graduates remain active members of the community and can continue to access professional networks, leadership opportunities, and peer support after college. By sustaining relationships with alumni and integrating their experiences back into programming, the organization creates a stronger pipeline of mentorship and leadership for future Scholars.

These shifts reflect Chicago Scholars' commitment to continuous improvement — staying true to its mission of supporting first-generation students from high school through entering their career or graduate school pathways, while adapting to address persistent challenges and broaden its influence across Chicago and beyond.

Appendix A. Glossary

- College enrollment – Students enrolling in a two-year or four-year college within the first six months after graduating high school.
- College graduation – Students obtaining an associate or bachelor's degree within six years of graduating high school.
- Propensity score matching – A quasi-experimental method where a comparison group is determined via matching each treated individual to a non-treated individual, based upon shared characteristics. This match on observable characteristics may provide meaningful counterfactuals for the experience that the treated individual would have had without treatment. However, for this estimation to be accurate, we must assume that the characteristics we match upon are representative of unobserved variation in personal experience.
- Year-to-year persistence – Students who directly enroll in a two-year or four-year college within six months of graduating high school and are still enrolled in a two-year or four-year college at any point during the following academic year.

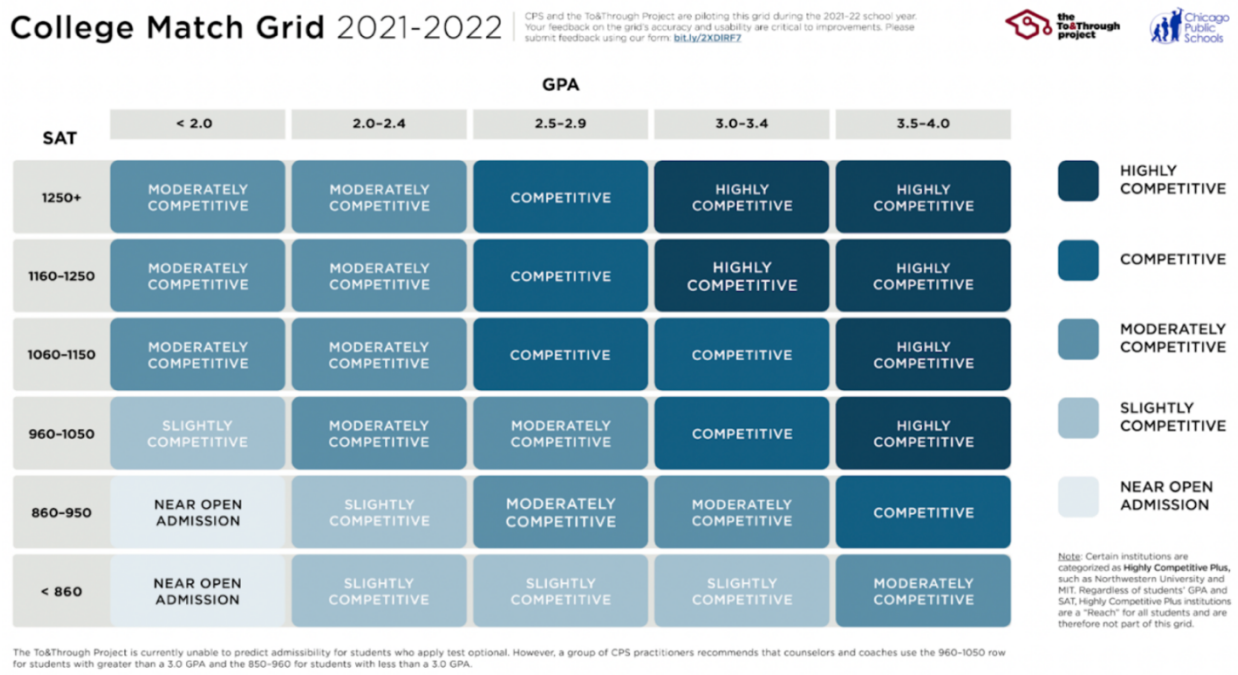
Appendix B: Summary Table of Outcomes

Outcome Variable	N	Chicago Scholars	Comparison Group	Estimate	Standard Error	Statistic	P-Value
Senior Year GPA	5,392	3.45	3.46	-0.01	0.01	-1.32	0.19
Senior Year Attendance Rate	7,138	0.93	0.93	-0.00	0.00	-1.89	0.06
Graduated High School	7,138	1.00	0.99	0.01	0.00	5.23	0.00
Number Of College Applications Submitted	4,954	14.29	11.10	3.19	0.20	15.87	0.00
Immediate Enrollment	7,138	0.91	0.85	0.06	0.01	6.83	0.00
Enrolled In a Match Institution	5,534	0.52	0.38	0.14	0.02	9.00	0.00
Enrolled For Two Consecutive Years	7,138	0.85	0.74	0.11	0.01	9.98	0.00
Graduated With Bachelor's Degree	7,138	0.48	0.35	0.13	0.01	10.76	0.00
Graduated With Associate Degree	7,138	0.03	0.04	-0.02	0.01	-3.63	0.00
Graduated With Bachelor's or Associate Degree	7,138	0.51	0.39	0.12	0.01	9.81	0.00

Appendix C: CPS Selectivity Guidelines

CPS uses the following college match grid and selectivity guidelines to indicate the academic credentials required across a range of colleges.

Figure 13. CPS' 2021-2022 college match grid



APPENDIX

Table 5. Mapping of CPS and Barron's college selectivity level rating

CPS College Selectivity Level	Barron's College Selectivity Level	Most Enrolled College
Very Selective Colleges	Most Competitive Highly Competitive + Highly Competitive Very Competitive +	Northwestern University Illinois Institute of Technology University of Illinois Urbana Champaign Marquette University
Selective/Very Selective Colleges	Highly Competitive Very Competitive + Very Competitive	University of Illinois Urbana Champaign Marquette University University of Illinois Chicago
Selective Colleges	Very Competitive Competitive +	University of Illinois Chicago Xavier University of Louisiana
Somewhat Selective Colleges	Competitive	Northern Illinois University
Less Selective Four-Year Colleges	Less Competitive Noncompetitive	National Louis University Harris-Stowe State University
Two-Year Colleges	Two-Year College	City of Chicago - Harold Washington College

Appendix D: Balance Test Results

Variable	Standardized Mean Difference	Variance Ratio
Age	-0.250	0.653
Annual Enrollment Days	0.329	0.126
Cumulative GPA (9th through 11th)	1.174	0.621
English As a Second Language (ESL) Status	-0.248	--
Ethnicity (Asian)	0.228	--
Ethnicity (Black)	-0.146	--
GPA (11th Grade)	0.857	0.763
Gender (Female)	0.263	--
In-School Suspensions (11th Grade)	-0.282	0.056
Individualized Education Plan (IEP) Status	-0.455	--
Junior Year Attendance Rate	0.797	0.098
Missing Act Indicator	-0.432	--
Out-Of-School Suspensions (11th Grade)	-0.306	0.061
School Type: District	-0.155	--
Student School Grade Repeater Status	-0.226	--
Temporary Living Situation Status (STLS)	-0.125	--
Total SAT Score	0.540	1.698
Exclude_Oc_No_College_Applications	-0.534	--
Expected High School Graduation	0.628	0.702
Propensity Score	1.058	5.698

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