

**The Counterfactual Matters:  
Experimental Findings on the Impact of Workforce Exposure During High School  
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**Background:** Professional workforce exposure during high school could be hypothesized to have either positive or negative effects on students' academic outcomes in high school and college. On the one hand, consistent with the adage "you can't be what you can't see," exposure to a professional workplace could provide high school students with motivation and support to invest in their education. Alternatively, spending time working could divert student attention from their studies and heighten the opportunity costs associated with college attendance.

Research on existing workforce exposure programs has yielded mixed results in terms of educational and later-life success. Working 20 hours or less during high school is associated with higher academic engagement and later earnings (Treskon, 2016; Ruhm, 1995; Rothstein, 2001). An evaluation of Urban Alliance, an internship program, found that 74% of youth who completed their program attended college compared to 60% of youth in the control group (Theodos et al., 2017). Similarly, a study of high school career academies found that the program increased enrollment in two and four year colleges (Kemple, 2008). However, several studies of work-based learning programs have had more mixed findings on whether program participation leads to improved academic outcomes (Ballou, Goldring, and Liu 2006; Cobb, Bifulco, and Bell 2009).

**Purpose:** We will present findings from a randomized controlled trial of a workforce exposure program that emphasizes college enrollment. We examine the effects of program participation on high school and college outcomes and explore whether these effects differ based on the type of high school a student attends.

**Intervention:** Genesys Works is an education and workforce-development program that provides low-income high school seniors—primarily youth who will be the first in their families to attend college—with work experience, academic support, and mentorship. The program model involves four core components: an eight-week workforce training program during the summer before students' senior year of high school; a year-long paid internship in information technology or accounting during students' senior year of high school (20 hours/week); a weekly college-access class during students' senior year of high school; and ongoing support throughout college as part of the Alumni Program. Genesys Works annually receives more program applications of qualified students than it can accommodate, giving us the rare opportunity to study the program effects as a randomized controlled trial.

**Setting and Population:** Among approximately 500 applicants to Genesys Works during the 2017-18 school year, approximately 457 were screened as qualified, of which approximately 230 were eventually placed into the internship. For this study, we follow a sample of 457 seniors in Chicago Public Schools (CPS) from the 2017-18 school year over time to understand initial program effects in both charter and non-charter school settings.

**Research Design:** Students apply to the Genesys Works program in the spring of their junior year of high school. The program consistently receives applications from more eligible applicants than they are able to serve. This oversubscription provides a perfect opportunity to evaluate the effectiveness of the program through a randomized controlled trial. Applicants are drawn from charter and district-run high schools from across the district. The study utilizes a block-randomization design, where randomization was performed within high school for schools that consistently refer a substantial number of students to the program or “at large” for students attending other district high schools.

**Data collection and analysis:** After two years in the program, we draw on CPS administrative data to examine the effect of the program on high school grade point average, course failure, attendance, behavioral incidences, and graduation. We draw on data from the National Student Clearinghouse to examine program effects on college enrollment and persistence. In addition, we administered a student survey in the spring of their senior year of high school to measure the treatment/control service contrast as well as differences in perceived college readiness and workforce skills.

We estimate both the intent to treat (ITT) effect and the effects of treatment on the treated (TOT), using assignment to treatment as an instrument for actual program participation; see Bloom (1984) and Angrist, Imbens and Rubin (1996). Thus the ITT analyses will estimate the effect for all students who were originally offered a spot in the program, and the TOT analyses will account for students who did not end up participating in the internship program.. As these students may be considered partial completers, our ITT analysis is our primary analysis, with our TOT analysis as secondary.

**Findings:** In the full study sample, we did not find that the program had a statistically significant effect on any of the high school outcomes examined, with the exception of high school graduation. However, when we disaggregate the results by whether the student attend a charter or district run high school, we find that the program was associated with a positive and statistically significant increase in GPA for students enrolled in district-run high schools as well as a statistically significant decrease course failures for the same group of students. The program led to a statistically significant *reduction* in high school graduation for students full sample; however, the magnitude of the reduction was much larger for students who attended charter high schools, indicating that students in charter schools may be driving this finding. Likewise, we found that overall Genesys Works students did not enroll in college or persist to spring term at rates that were

statistically different from their control group peers. However, when we examine college outcomes for students who attended a charter high school, we see a negative and statistically significant impact on college enrollment.

**Conclusions:** Taken as a whole, this pattern of exploratory results suggests that the Genesys Works program may be more beneficial for students who are enrolled in a district run high school than those who attend a charter school. Given a core component of the program is spending half of the school day in a work rather than an academic setting, these early study results suggest that understanding the what students are missing when they engage in workforce exposure programs may be critical to understanding the effectiveness of this kind of programming.