
FROM DEGREES TO DOLLARS

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Six-Year Findings from the ASAP Ohio Demonstration

Community colleges in the United States provide higher education to millions of students each year and serve a disproportionate number of students from low-income backgrounds. They are accessible—they typically have open admission policies—and are, on average, much less expensive than four-year colleges or private two-year colleges. But graduation rates from community colleges are very low. Among first-time, full-time, degree-seeking students entering public two-year schools, only 29 percent graduate within three years.¹

It is important to address the challenge of improving graduation rates at community colleges because postsecondary education can provide individuals from low-income backgrounds a pathway to well-paying careers. Over the last 40 years the proportion of jobs that require postsecondary education has doubled, and labor market demands for educated workers are expected to continue to grow.² Research has shown that earning a degree, including an associate's degree, can lead to higher-paying jobs and an increased likelihood of earning a living wage.³

Seeking to address this challenge, three community colleges in Ohio—Cincinnati State Technical and Community College, Cuyahoga Community College, and Lorain County Community College—implemented a new program model that was based closely on the City University of New York's (CUNY's) proven Accelerated Study in Associate Programs (ASAP). ASAP, designed and implemented by CUNY, is a comprehensive program that provides students with up to three years of financial, academic, and personal supports and services that address multiple barriers to student success, with the goal of helping more

students graduate within three years. MDRC's random assignment evaluation of CUNY ASAP found that after three years, 40 percent of ASAP students graduated, compared with just 22 percent of control group students. After six years, ASAP students continued to outperform the control group, with 51 percent of the program group earning degrees compared with 40 percent of the control group. A longer-term look shows that this impact persists through the eight-year follow-up period.⁴

Given the success at CUNY, the three Ohio colleges implemented a model based closely on ASAP, with some minor adaptations to address the local context. The Ohio program model as designed required students to enroll full time and encouraged them to take developmental (remedial) courses immediately, provided comprehensive support services such as enhanced advising, provided financial support to help students meet participation requirements, and offered blocked courses and condensed schedules.⁵ Box 1 outlines the components of the Ohio programs.

BOX 1
SUMMARY OF OHIO PROGRAM
MODEL COMPONENTS

ACADEMIC AND FINANCIAL
SUPPORT FOR STUDENTS

- Enhanced advising
- Enhanced career development services
- Enhanced tutoring
- Tuition waiver
- Assistance covering textbook costs
- Monthly financial incentive

STUDENT REQUIREMENTS

- Enroll in classes full time; summer enrollment is encouraged
- Take developmental courses immediately
- Graduate within three years
- Enroll in a consolidated schedule or blocked courses (or both)
- Enroll in a first-year seminar

In 2015, the Ohio colleges began implementing their programs; their successes were similar to those at CUNY. After three years, a study of the programs found that 35 percent of the students in the Ohio program group had earned degrees, compared with 19 percent of students in the control group. In addition, more students in the program group were enrolled in a four-year institution at the end of the three-year follow-up period.⁶

This brief extends the follow-up period for the Ohio programs to six years and provides earnings and employment impacts for the first time.⁷ After six years, the program continued to have an impact on graduation: 44 percent of students in the program group earned a degree, compared with 29 percent in the control group.⁸ (See Table 1.) In addition, more students in the program group earned a bachelor's degree (14 percent in the program group versus 9 percent in the control group). The effects on degree receipt are among the largest that have been achieved in a rigorous evaluation.⁹ Notably, these improvements in academic achievement led

to increased earnings, on average, for the students in the program group. In Year 6, students in the program group earned an additional \$1,948 over the control group average of \$17,626—an increase of 11 percent. (Average earnings include those from students who worked full time and part time, as

TABLE 1
SUMMARY OF SIX-YEAR IMPACTS

OUTCOME	SAMPLE SIZE	PROGRAM GROUP	CONTROL GROUP	DIFFERENCE	P-VALUE
Confirmatory outcomes					
Ever earned a degree (%)	1,501	43.7	28.6	15.1***	0.000
Annual earnings (\$)	1,482	19,573	17,626	1,948**	0.047
Exploratory outcomes (%)					
Ever earned an associate's degree	1,501	41.8	26.4	15.4***	0.000
Ever earned a bachelor's degree	1,501	13.6	8.6	5.0***	0.002
Ever employed in Year 6	1,482	70.5	70.8	-0.3	0.902

SOURCES: Ohio unemployment insurance wage records and National Student Clearinghouse data.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, the number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.

well as from students who earned no income at all.) Among only students with any earnings in Year 6, the program group earned an average of \$27,715, compared with the control group's \$24,955.¹⁰

ABOUT THE EVALUATION

The ASAP Ohio Demonstration began in 2014 as a collaborative effort between the three Ohio colleges, CUNY, MDRC, and the Ohio Department of Higher Education. The Ohio colleges started implementing their programs in 2015: CState Accelerate at Cincinnati State, Degree in Three at Cuyahoga Community College, and Students Accelerating in Learning at Lorain County Community College. CUNY was responsible for providing in-depth technical assistance; the Ohio Department of Higher Education coordinated communication and knowledge sharing among the three colleges; and MDRC managed operations, led the evaluation, and oversaw the demonstration.

To be eligible for the Ohio programs, students had to be Pell Grant eligible, degree seeking, and willing to enroll full time in college in a three-year program. In order to estimate the impacts of these programs, the evaluation used random assignment—a lottery-like process—to place students into either a program group, which had access to the program's services, or a control group, which did not. This process ensured that there were no systematic differences, on average, between the two

groups at the beginning of the study. As a result, differences in average outcomes (for example, degree completion rates) between the two groups represent an estimate of the program’s average impact.¹¹

Students joined the study in three cohorts, one before each semester: spring 2015, fall 2015, and spring 2016. A total of 1,501 students were randomly assigned, 806 in the program group and 695 in the control group. Almost half of the students in the sample are considered “nontraditional,” which is defined as students who were 24 years or older, who worked 35 hours or more per week, who were parents, or who had received a high school equivalency (such as a GED certificate) rather than a high school diploma. Nearly 60 percent of the study participants were employed upon entering the study, about 25 percent of whom worked full time. When a program requires full-time enrollment, it can be challenging for students to balance employment with college attendance, since students have a major competing demand for their time. Almost 75 percent of the students had developmental education requirements at the time of random assignment, which can be a barrier to degree attainment since developmental courses do not count towards a degree.

Data sources for the evaluation of the Ohio programs include baseline survey data, National Student Clearinghouse data, and Ohio unemployment insurance wage data. Before random assignment, students filled out a baseline information form, which collected baseline demographic characteristics and other relevant background information. The information obtained from this form is used to describe the sample, document that characteristics of the program and control groups were similar at the beginning of the study, and define subgroups of interest. Data from the National Student Clearinghouse, which cover nearly all postsecondary institutions in the United States, were used to observe academic outcomes, including enrollment and graduation rates. The Ohio unemployment insurance wage data are the source of the study’s labor market outcomes, including employment and earnings.

LONG-TERM ACADEMIC IMPACTS: DEGREES EARNED AND ENROLLMENT TRENDS

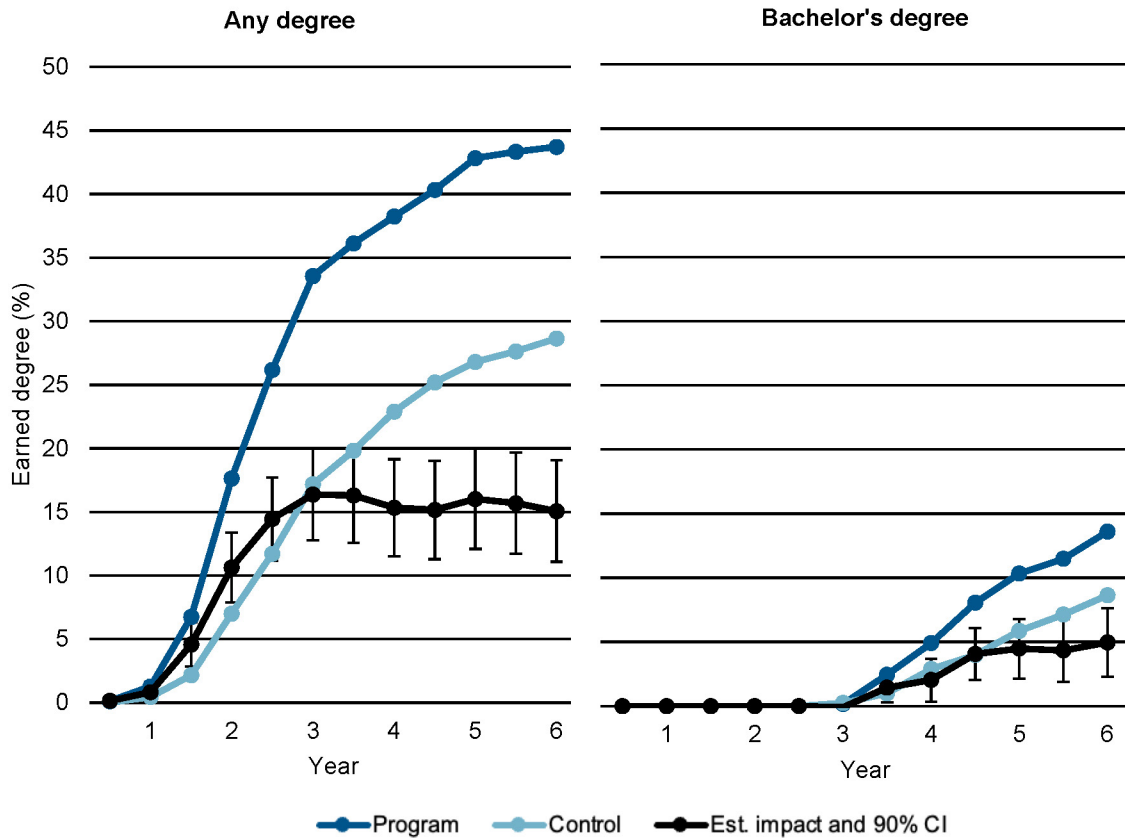
After six years, students in the program group continue to outperform their control group peers in graduation and enrollment rates. Students who were given the opportunity to participate in the Ohio programs were more likely to earn a degree and more likely to be enrolled in a four-year college than their control group counterparts.¹²

Increased Graduation Rates

After six years, 44 percent of program group students had earned a degree, compared with 29 percent of the control group. The difference, 15 percentage points, is the estimated impact of the Ohio programs on graduation rates. This impact represents an increase of more than 50 percent in six-year graduation rates, and is among the largest increases in this outcome measure seen in any rigorous evaluation of student success programs.¹³

The impact on graduation rates has remained highly consistent since the three-year follow-up period, changing little from the 16 percentage point impact by the end of Year 3 (as shown in the lefthand graph in Figure 1). This consistency suggests that much of the impact on degree completion represents students earning a degree who would not have done so without the program (as opposed to earning a degree that they would have eventually earned, just more quickly).

FIGURE 1
SIX-YEAR IMPACTS ON DEGREE RECEIPT, BY LEVEL



SOURCE: MDRC calculations using data from the National Student Clearinghouse.

NOTES: Estimates are for the full sample of 1,501 students.

Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at the time of random assignment, the number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

CI = confidence interval. A 90 percent confidence interval means that there is a 90 percent chance that the true impact falls between the lower and upper bounds of the interval. If the confidence interval for an estimated impact does not contain zero, that estimated impact is called statistically significant.

Figure 1 shows the degree-earning trends for the program and control groups and both the estimated impact for the attainment of any degree and the attainment of a bachelor's degree. With extended follow-up, disaggregating the impacts on earning a degree by type (that is, an associate's versus a

bachelor's degree) reveals that the Ohio programs not only helped students earn associate's degrees, they helped students transfer to four-year colleges and earn bachelor's degrees. After six years, 42 percent of the program group had earned an associate's degree compared with 26 percent of the control group, a 15 percentage point difference. (See Supplementary Table S.2 for more details.) Fourteen percent of the program group earned a bachelor's degree compared with 9 percent of the control group, a 5 percentage point difference. There was also a 3 percentage point impact on earning a certificate after six years. The increase in degree receipt, particularly the emerging impact on bachelor's degree receipt, may help to explain the differences in earnings described in the next section.

Impacts on graduation rates, by subgroups. In addition to estimating the overall average impact on graduation rates, the study also explored graduation impacts on different groups of students with specific characteristics, or subgroups. The programs were generally effective at increasing six-year graduation rates for many different subgroups. The one exception is for subgroups defined by gender. The Ohio programs seemed to have larger impacts for women than for men. This finding should be interpreted with caution given the number of subgroups tested and the fact that different impacts by gender were not observed in the evaluation of CUNY ASAP in New York. Exploratory subgroup analyses can be found in Supplementary Table S.3.

Improved Persistence

Although program group students are graduating—from both two- and four-year colleges—at higher rates than the control group, after six years both groups of students were enrolled in any postsecondary institution at similar rates (about 25 percent). However, breaking this finding down by type of institution tells an important story. While there was no meaningful difference in enrollment in two-year institutions by the end of Year 6, enrollment in four-year institutions among program group members was 3 percentage points higher than among control group members. This finding aligns with the three-year findings that the Ohio programs increased transfer to four-year institutions, and suggests that the impact on bachelor's degree receipt may be maintained, or even increase, over time. Supplementary Table S.2 contains detailed enrollment findings.

Will the Control Group Catch Up?

A program can improve graduation rates in two ways: by helping students who would have graduated anyway do it faster, or by helping students graduate who would not have done so otherwise. Both scenarios have positive academic and financial implications. In the former scenario, however, the graduation impact (and perhaps the boost in earnings) would fade over time as members of the control group “catch up” and earn their degrees. In the latter scenario, one would expect these impacts to remain relatively steady. What will happen to the impacts in the Ohio study?

Longer-term follow-up will shed greater light on this issue, but the present data suggest that the control group likely will not catch up. In each research group, only 8 percent of students are enrolled but have not yet earned a degree. Therefore, even in the highly unlikely scenario that every single control

group student in this category earns a degree and every single program group student in this category drops out, the program group would *still* have a higher graduation rate.¹⁴

LONG-TERM LABOR MARKET IMPACTS: EARNINGS AND EMPLOYMENT

Increased Annual Earnings

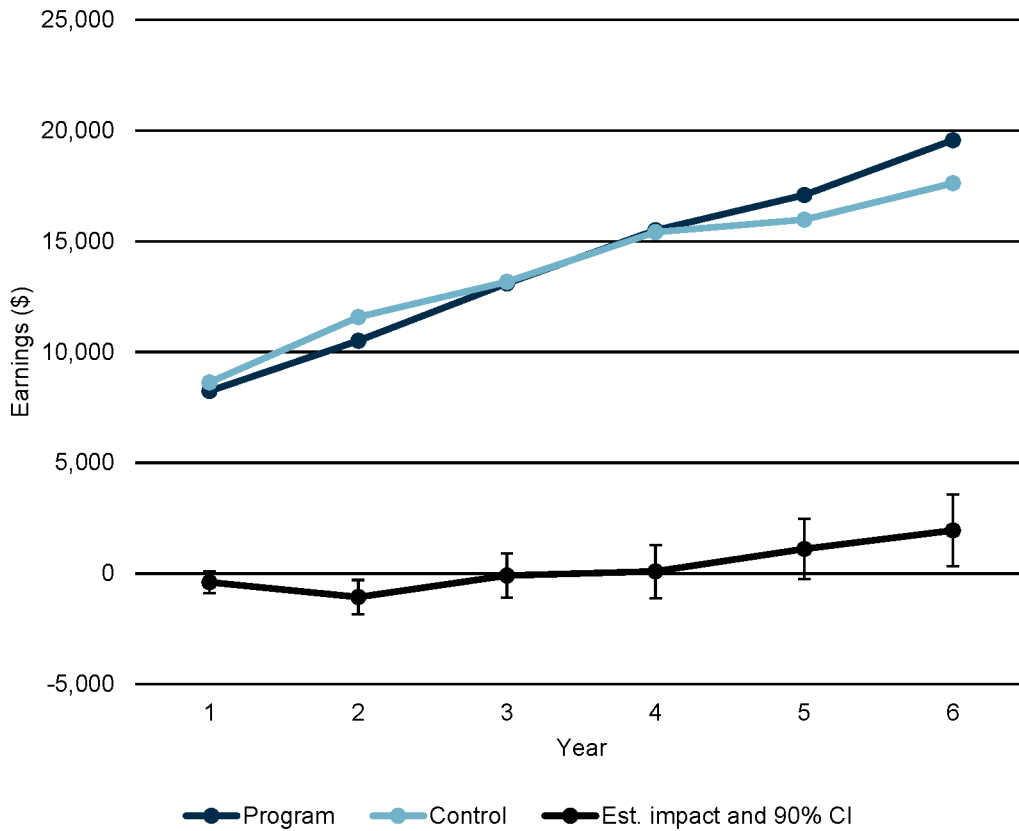
It is reasonable to expect any labor market impacts for the full sample to begin to show after six years of follow-up. In Year 6, the program group earned an average of \$19,573 while the control group earned an average of \$17,625. The estimated increase was \$1,948, or about 11 percent. This is the first year the estimated impact on earnings is positive and statistically significant. As illustrated in Figure 2, during the first three years the control group earned more. In Year 4, the program group began to earn more, and the gap in earnings increased through Year 6. This trend may be caused by program group members enrolling in college at much higher rates in the first three years (and therefore likely working fewer hours on average); by Year 6 the program group started receiving some of the earnings benefits of having obtained a degree.

Impacts on annual earnings, by subgroup. As with graduation rates, the study explored differential impacts on earnings for subgroups. While impact estimates were generally positive, statistically significant differences in impacts were observed for two types of subgroups: developmental education needs and cohort starting semester. The Ohio programs have a very large, positive, and statistically significant impact on annual earnings for students who did not have developmental education needs when they joined the study, and a positive but much smaller (and not statistically significant) impact for students with developmental education needs. Notably, this pattern does not hold for degree completion. Students who were less prepared for college (and have lower overall graduation rates) may need more time to complete their degrees. If students with developmental needs stay in school longer to earn a bachelor's degree, it is reasonable to expect that impacts on their earnings would take longer to appear. A similar pattern emerged by cohort: The programs had a large, positive, and statistically significant impact on annual earnings for the spring cohorts, while the impact on the fall cohort was positive but neither large nor statistically significant. This finding may have been driven by differences in the students starting at different times and warrants further investigation. Exploratory subgroup analyses can be found in Supplementary Table S.6. Future reports with longer follow-up data will continue to investigate the Ohio programs' impacts on different subgroups of interest.

No Change in Employment Rates

There were no significant differences in employment rates between the program and control groups at any point in time. Employment rates for both groups were between 75 and 80 percent throughout the follow-up period—with the exception of Year 6, when they fell to about 70 percent for both groups.

FIGURE 2
SIX-YEAR IMPACTS ON ANNUAL EARNINGS



SOURCE: MDRC calculations using Ohio unemployment insurance wage records.

NOTES: Estimates are for a sample of 1,482 students. Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.

Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at the time of random assignment, the number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

CI = confidence interval. A 90 percent confidence interval means that there is a 90 percent chance that the true impact falls between the lower and upper bounds of the interval. If the confidence interval for an estimated impact does not contain zero, that estimated impact is called statistically significant.

These findings have two important implications. First, the last year (for the spring 2015 cohort) or two years (for the spring 2016 cohort) of the six-year follow-up period occurred during the COVID-19 pandemic, which likely explains the sudden drop in employment and suggests that the Ohio programs did not insulate participants against unemployment caused by the pandemic. This decrease in employment mirrors national labor market trends for associate’s degree holders, who are more likely

than bachelor's degree holders to work in jobs badly affected by the pandemic.¹⁵ As Supplementary Table S.5 shows, employment rates dropped sharply for the program and control groups (by 3 and 8 percentage points, respectively) in the second quarter of 2020. By the end of 2021, employment rates among the study sample had still not recovered to pre-pandemic levels, once again mirroring national trends.¹⁶ Second, the positive impacts on Year 6 earnings are *not* explained by higher rates of employment. Given the large positive impacts on degree receipt, these employment findings suggest that the Ohio programs may primarily improve earning potential by helping participants enter higher-paying or more stable careers rather than moving more people into work. The programs' enhanced advising and required career services may also be important mechanisms for helping participants secure higher-paying jobs.

CONCLUSION AND NEXT STEPS

This brief presents the first experimental look at the long-term labor market impacts of programs based on the CUNY ASAP model. The results are promising: After six years, the Ohio programs helped students complete their degrees and increased their earnings. These findings represent a new and important contribution to the growing body of evidence on comprehensive approaches to improve the educational—and now economic—outcomes of students from low-income backgrounds.

The continued success of the Ohio programs in improving academic outcomes is notable; prior research suggests that attempts to replicate effective programs often fail to achieve the original results.¹⁷ This brief builds on earlier research showing that the Ohio programs have been able to mirror the large, positive impacts seen in the original CUNY ASAP evaluation.¹⁸ The ASAP Ohio Demonstration has shown—after two, three, and now six years of follow-up—that the CUNY ASAP model is not just replicable in different contexts but potentially transformative for the students who participate. Despite having substantially different institutional characteristics, student demographics, and programmatic supports than the original CUNY evaluation, the Ohio programs continue to achieve similarly strong results. Furthermore, other adaptations of the CUNY ASAP model—including one at Westchester Community College (which MDRC is evaluating) and a baccalaureate version of the model named Accelerate, Complete, and Engage that has expanded to seven CUNY colleges—have shown promising early results for academic outcomes.¹⁹ The combination of generalizability, replicability, and an ever-growing evidence base has earned the CUNY ASAP model national attention.

This brief extends this evidence base beyond college and into the labor market. The fact that the Ohio programs increased students' annual earnings is a promising indication that comprehensive student support programs modeled after CUNY ASAP can improve not only academic outcomes but economic ones as well. These findings, however, are not without limitations. MDRC's evaluation of ASAP in Ohio captures only wages earned in Ohio—meaning that if students moved out of state for employment, their earnings may not be represented.²⁰ The study team plans to address this limitation in future analyses. It is also important to acknowledge the influence of the COVID-19 pandemic. Given the education and employment disruptions the pandemic caused during the timespan of the

study, it will likely take more than six years for earnings and employment impacts to fully show.²¹ This is evident from the substantial portion—about 20 percent—of students who are still enrolled in school in the last semester of follow-up. Future reports will extend the follow-up period for labor market impacts to ten years. Impact results on degree completion have been replicated in multiple implementations of the ASAP model; it is essential to do the same with labor market findings. While this study’s results are encouraging, it is important to see if other implementations of the model produce similar effects.

This brief presents the first experimental labor market findings from the CUNY ASAP model, highlighting not just the model’s success but also a crucial need for further replication. While there is a large and growing evidence base on ASAP’s academic impacts, this study provides just one data point about the labor market impacts. As practitioners, policymakers, and researchers around the country seek to help community college students graduate at higher rates, pursue more advanced credentials, and earn more money, long-term follow-up studies like the evaluation of ASAP in Ohio will be increasingly important to help them understand what meaningfully improves outcomes for students beyond their college years. MDRC’s evaluation will continue to collect long-term academic and labor market data, and future reports will discuss research findings after eight and ten years.

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- 1 Richard Fry and Anthony Cilluffo, “A Rising Share of Undergraduates Are From Poor Families, Especially at Less Selective Colleges,” website: <https://www.pewresearch.org/social-trends/2019/05/22/a-rising-share-of-undergraduates-are-from-poor-families-especially-at-less-selective-colleges/>, 2019; National Center for Education Statistics, “Undergraduate Graduation Rates,” website: <https://nces.ed.gov/fastfacts/display.asp?id=40>, 2022.
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- 5 “Enhanced” advising uses lower caseloads to provide students support across a range of academic and personal topics. For more information on the program model and how it was implemented, see Cynthia Miller, Camielle Headlam, Michelle Manno, and Dan Cullinan, *Increasing Community College Graduation Rates with a Proven Model: Three-Year Results from the Accelerated Study in Associate Programs (ASAP) Ohio Demonstration* (New York: MDRC, 2020).
- 6 Miller, Headlam, Manno, and Cullinan (2020).
- 7 This study prespecified two confirmatory outcomes: receiving a degree (excluding certificates) and annual earnings. A confirmatory outcome is one that is believed to be a main indicator of the success of the Ohio programs. Exploratory outcomes, on the other hand, are not the main indicators of success but still provide useful evidence. All outcomes and subgroup analyses except the two confirmatory outcomes noted above are considered exploratory. Additionally, Supplementary Table S.7 presents p-values adjusted using the Westfall-Young method, which accounts for the increased false discovery rate when testing multiple hypotheses. The impact pre-analysis plan for this study is publicly available at Open Science Foundation, “ASAP Ohio Long-Term Follow-Up Analysis Plan,” website: osf.io/735nq, 2020.
- 8 The confirmatory outcome for this study excludes certificates. Certificates are earned from non-degree programs that are typically short term (often one year or less) and offer specialized skills-based training for a particular vocation.
- 9 See, for example, Susan Scrivener and Michael J. Weiss, *More Guidance, Better Results? Three-Year Effects of an Enhanced Student Services Program at Two Community Colleges* (New York: MDRC, 2009); Sara Goldrick-Rab, Douglas N. Harris, Robert Kelchen, and James Benson, *Need-Based Financial Aid and College Persistence: Experimental Evidence from Wisconsin* (Madison, WI: Institute for Research on Poverty, 2012); Eric P. Bettinger and Rachel B. Baker, “The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising,” *Educational Evaluation and Policy Analysis* 36, 1 (2014): 3–19; Alexander K. Mayer, Reshma Patel, Timothy Rudd, and Alyssa Ratledge, *Designing Scholarships to Improve College Success* (New York: MDRC, 2015); Michael J. Weiss, Mary G. Visher, Evan Weissman, and Heather Wathington, “The Impact of Learning Communities for Students in Developmental Education: A Synthesis of Findings from Randomized Trials at Six Community Colleges,” *Educational Evaluation and Policy Analysis* 37, 4 (2015): 520–541; Andrew C. Barr and Benjamin L. Castleman, “The Bottom Line on College Advising: Large Increases in Degree Attainment,” *EdWorkingPaper* 21-481 (Providence, RI: Annenberg Institute for School

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- 10 The unemployment insurance wage data used to calculate labor market outcomes do not include information about the type or consistency of employment, and therefore cannot be used to distinguish full-time versus part-time employment or permanent versus contractual employment. It remains an open question whether the Ohio programs may have impacted the type or consistency of employment students pursued.
- 11 The average impact of a program is unknowable; however, it can be estimated. In the case of a randomized controlled trial, it can be estimated by measuring the difference between the average outcome of the program group and the average outcome of the control group. The control group serves as an excellent proxy for what would have happened to the program group, had it not been offered the program. An estimate of the average impact of a program is considered “statistically significant” when it is very likely that the true (unknowable) impact of the program is positive. All impacts reported are statistically significant at the 10 percent level, as prespecified in the study’s analysis plan, unless noted otherwise.
- 12 This study uses an intent-to-treat analysis. That is, it compares the outcomes of all students who were offered the opportunity to participate in the Ohio programs (the program group), regardless of whether they actually participated, with the outcomes of all students who were not offered the opportunity to participate in the Ohio programs (the control group). All analyses presented in this brief are intent-to-treat analyses.
- 13 See, for example, Scrivener and Weiss (2009); Goldrick-Rab, Harris, Kelchen, and Benson (2012); Bettinger and Baker (2014); Mayer, Patel, Rudd, and Ratledge (2015); Weiss, Visher, Weissman, and Wathington (2015); Barr and Castleman (2021); and Rolston and Walton (2022).
- 14 While students who were not enrolled at the end of six years could, of course, re-enroll and earn a degree, it is unlikely that they would. See Justin C. Ortagus, Melvin Tanner, and Isaac McFarlin, “Can Re-enrollment Campaigns Help Dropouts Return to College? Evidence from Florida Community Colleges,” *Educational Evaluation and Policy Analysis* 43, 1 (2021): 154–171.
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- 19 Arnold Ventures, “Another Promising Path to Student Success,” website: <https://www.arnoldventures.org/stories/another-promising-path-to-student-success>, 2022; City University of New York Office of Institutional Research and Assessment, *Significant Increases in Associate Degree Graduation Rates: CUNY Accelerated Study in Associate Programs (ASAP)* (New York: City University of New York, 2022); Stanley Dai, Colleen Sommo, and Rebekah O’Donoghue, *Improving Academic Outcomes at Westchester Community College During the Pandemic: Promising Interim Findings from the Viking ROADS Randomized Controlled Trial* (New York: MDRC, 2022).

- 20 Using publicly available data from the KYSTATS Multi-State Postsecondary Report, the study team estimates that 5 to 10 percent of the study sample may be employed outside of Ohio, and that those students are most likely in Kentucky. This is likely due to the location of Cincinnati State Technical and Community College, which is right on the Ohio-Kentucky border.
- 21 Veronica Minaya and Judith Scott-Clayton, “Labor Market Trajectories for Community College Graduates: How Returns to Certificates and Associate’s Degrees Evolve Over Time,” *Education Finance and Policy* 17, 1 (2022): 53–80.

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