

Executive Summary



BECOMING COLLEGE- READY

**Early Findings
from a CUNY
Start Evaluation**

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BUILDING KNOWLEDGE
TO IMPROVE SOCIAL POLICY

CCRC COMMUNITY COLLEGE
RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

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Overview

Many students who enter community college are deemed underprepared for college-level courses and are referred to developmental (remedial) education courses to build their math, reading, or writing skills. These students often struggle in developmental courses and in college more broadly. To help them, the City University of New York (CUNY) developed CUNY Start. CUNY Start targets incoming students who are assessed as needing remediation in math, reading, and writing. The program delays college matriculation (enrollment in a degree program) for one semester and provides intensive instruction in math, reading, and writing during that semester with a prescribed instructional approach. It also provides advising, tutoring, and a weekly seminar that teaches students skills they need to succeed in college. Students pay only \$75 for the program and do not use financial aid.

CUNY Start's underlying theory of change posits that students with substantial developmental course requirements are best served through an intensive model, designed to build academic preparedness and college skills before matriculation. The program's designers hypothesize that compared with students in standard college courses (including standard developmental education courses), a higher proportion of CUNY Start students will complete developmental education and that they will do so more quickly. Because CUNY Start students spend a semester building their basic skills before matriculating, they are expected to earn fewer college credits in the short term. Over the longer term, the expectation is that CUNY Start students will have higher retention rates (that is, more of them will stay in college), higher college-level credit accumulation, and higher graduation rates.

MDRC, CUNY, and the Community College Research Center at Teachers College, Columbia University, are partnering to evaluate CUNY Start using a random assignment research design, supported by a grant from the federal Institute of Education Sciences. Eligible students at four CUNY community colleges were assigned at random to the program group, whose members could participate in CUNY Start, or to the control group, whose members could receive the colleges' standard courses and services, including standard developmental education courses. Findings in this report include:

- CUNY Start was implemented as it was designed, and the contrast between the program and the colleges' standard courses and services was substantial.
- During the first semester in the study, program group students made substantially more progress through developmental education than control group students; effects were especially large in math. In contrast, during that same semester, control group students earned more college credits than program group students, as predicted by CUNY Start's designers.
- During the second semester, program group students enrolled at CUNY colleges (that is, participated in CUNY Start or enrolled in any non-CUNY Start courses as matriculated students) at a higher rate than control group students.

Subsequent follow-up data will be analyzed to assess sample members' persistence in college, college credit accumulation, and graduation rates. If CUNY Start's short-term trade-off results in the hypothesized longer-term gains, the program will serve as an important model for serving students with substantial developmental course requirements.

Preface

Community colleges play a vital role in postsecondary education and workforce development, enrolling more than one in every three undergraduates in the United States. Unfortunately, many entering community college students are assessed as needing remediation in math, reading, or writing and are placed into noncredit developmental (remedial) education courses. Graduation rates for students who place into developmental education are discouragingly low. Yet seriously tackling the issue of pedagogical reform in remedial education classrooms (and higher education classrooms more broadly) may require rethinking the hiring, promotion, and professional development of instructors — no small undertaking.

In 2009, the City University of New York (CUNY) developed and implemented CUNY Start, an innovative prematriculation program (one that precedes students' entry into degree programs) that redefines students' experiences with developmental education. CUNY Start is time-intensive, changes the pedagogy used in remedial classes, modifies the content of developmental education, and gives students additional academic and nonacademic support. By focusing on developmental education alone, it seeks to eliminate or dramatically reduce students' developmental education requirements in one semester, helping clear their path to a degree.

This report presents important early findings from a partnership among MDRC; the Community College Research Center at Teachers College, Columbia University; and CUNY to evaluate the effectiveness of CUNY Start. The program served students who placed into developmental education in one or more areas, and half of the study sample placed into remediation in math, reading, and writing. CUNY Start's effect on becoming "college-ready" is among the largest any of the partner organizations has found in evaluations of developmental education reforms. However, in line with CUNY Start's theory of change, students offered the program do not take college-level courses, and therefore fall behind in college credits earned before they matriculate. Additional data collection that is planned for the longer term will show whether this short-term trade-off is worthwhile.

CUNY Start shows that it is possible to dramatically change the student experience inside the developmental education classroom — particularly in remedial math. Moreover, with the right combination of reform in the intensity, pedagogy, and content of instruction, many more students can become college-ready within a single semester. As the evaluation tracks these students into the future, much will be learned about this promising model.

Gordon L. Berlin
President, MDRC

Acknowledgments

In 2014, MDRC; the Community College Research Center (CCRC) at Teachers College, Columbia University; and the City University of New York (CUNY) received a grant from the federal Institute of Education Sciences at the U.S. Department of Education to conduct a large-scale evaluation of CUNY Start. We greatly appreciate their generous backing and ongoing commitment.

We are grateful to Alexandra Logue, research professor at CUNY and co-principal investigator for this evaluation. Her thoughtful and passionate thoughts on the research have been invaluable, as has her review of earlier drafts of this report.

We are grateful to Donna Linderman, CUNY Associate Vice Chancellor for Academic Affairs, for her partnership and collaboration throughout the study. She and Mia Simon, University Director of CUNY Start, and Zenobia Johnson, Associate Director of CUNY Start, worked closely with MDRC to launch the evaluation at each college and have continued to play a critical role. We are also grateful to Althea Webber, Associate Director of Research and Strategy, who provided data for the report from CUNY and has been instrumental in helping us understand the data and CUNY policies. Ms. Linderman, Ms. Simon, Ms. Johnson, and Ms. Webber also reviewed earlier drafts of this report and provided valuable comments.

We greatly appreciate the assistance and support of administrators and staff members at Borough of Manhattan Community College, Kingsborough Community College, LaGuardia Community College, and Queensborough Community College. Space does not permit us to name everyone who has played a role in CUNY Start and the evaluation, but we want to particularly acknowledge some individuals. The CUNY Start directors, assistant directors, and program coordinators provided invaluable assistance. These include Denise Deagan, Andrea Gabbidon-Levene, LaShallah Osboren, Frank Milano, Julianne Willis, Natalie Bredikhina, Nora Fussner, Dana Aussenberg, Deema Bayrakdar, Thomas Dieter, Diana Befkowitz, Christine Mellone Dooley, and Bonnie Flaherty. We appreciate all that they and the CUNY staff members at the colleges have done to support the evaluation and bring the CUNY Start model to life for participating students.

Many MDRC and CCRC staff members have contributed to the CUNY Start evaluation and to this report. At MDRC, Rashida Welbeck and Elizabeth Calmeyer worked closely with Ms. Linderman, Ms. Simon, Ms. Johnson, and the colleges' CUNY Start directors and staff members to develop and implement the recruitment and sample enrollment procedures for the study. They were assisted by former MDRC staff members Kelsey Patterson and Jonathan Rodriguez. Joel Gordon, Galina Farberova, Alla Chaplygina, Robert Notwicz, and Shirley James and her staff developed and monitored the random assignment and baseline data-collection process. Former

MDRC staff member Lisa Ramadhar led the data acquisition in the first few years of the evaluation. Matthew Feather, Andrew Avitabile, and Alvin Christian processed much of the data for the report. At CCRC, Nikki Edgecombe led the evaluation's implementation research. She, Susan Bickerstaff, and Julia Raufman participated in that research and carefully reviewed earlier drafts of the report. Alexander Mayer, Leigh Parise, Marie-Andrée Somers, and Alice Tufel from MDRC, and Elisabeth Barnett and Amy Mazzariello from CCRC also reviewed earlier drafts of this report and provided helpful comments. Luke Miratrix from Harvard University provided valuable thoughts on methodological issues. Erick Alonzo, Alvin Christian, and Dominique Dukes assisted in fact-checking the report. Joshua Malbin edited the report and Ann Kottner prepared it for publication.

Finally, we would like to thank the students who are participating in the evaluation at Borough of Manhattan Community College, Kingsborough Community College, LaGuardia Community College, and Queensborough Community College. We are especially grateful to the students who completed the student survey or participated in interviews or focus groups. We hope that the findings from the evaluation will be used to improve college programs and services for them and others in the future.

The Authors

Executive Summary

Many students who enter community college are deemed underprepared for college-level courses and are referred to developmental (remedial) education courses to build their math, reading, or writing skills. These students often struggle in the developmental courses and in college more broadly.¹

Hoping to boost the success rates of its least prepared incoming students, the City University of New York (CUNY) developed CUNY Start, which is offered at eight CUNY colleges. CUNY Start's full-time program was designed for and targets incoming students who are assessed as needing remediation in math, reading, and writing. It is also open to students who are assessed as needing remediation in math and either reading or writing. (CUNY Start is also offered part time, as discussed below.) The program's short-term goal is to substantially reduce or eliminate students' developmental education requirements after one semester, while preparing them for college-level courses. Its long-term goal is to improve academic outcomes, including graduation rates. CUNY Start delays college matriculation (that is, when students first enroll in non-CUNY Start courses in degree programs) for one semester and provides intensive instruction in math, reading, and writing during that semester with a prescribed instructional approach. It also provides advising, tutoring, and a weekly seminar that teaches students skills they need to succeed in college. Students pay only \$75 for the program and cannot use financial aid.

Compared with many developmental education reforms, CUNY Start is uncommonly comprehensive. The program's focus on students assessed as needing remediation in math, reading, and writing sets it apart from other reforms that focus on students with remedial requirements in only one or two subject areas, or that focus on students on the cusp of being deemed "college-ready."² Additionally, unlike most other reforms, CUNY Start aims to provide all the developmental education students need in one semester, before they matriculate. Finally, the cost is very low.

¹Thomas Bailey, Dong Wook Jeong, and Sung-Woo Cho, "Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges" (*Economics of Education Review* 29, 2: 255-270, 2010).

²Michelle Hodara and Shanna Smith Jaggars, "An Examination of the Impact of Accelerating Community College Students' Progression Through Developmental Education" (*Journal of Higher Education* 85, 2: 246-276, 2014); Nikki Edgecombe, Shanna Smith Jaggars, Di Xu, and Melissa Barragan, "Accelerating the Integrated Instruction of Developmental Reading and Writing at Chabot College" (New York: Community College Research Center, Teachers College, Columbia University, 2014); and Colleen Sommo, Alexander K. Mayer, Timothy Rudd, and Dan Cullinan, *Commencement Day: Six-Year Effects of a Freshman Learning Community Program at Kingsborough Community College* (New York: MDRC, 2012).

CUNY has conducted internal quasi-experimental analyses that provide evidence of CUNY Start’s effectiveness.³ Building on that evidence base, MDRC, CUNY, and the Community College Research Center at Teachers College, Columbia University, are partnering to evaluate CUNY Start at four CUNY community colleges using a random assignment research design, supported by a grant from the federal Institute of Education Sciences. Each eligible student who consented to participate was assigned at random either to the program group, whose members could participate in CUNY Start, or to the control group, whose members could receive standard college courses and services, including standard developmental education courses. The difference between the two groups’ average outcomes provides an unbiased estimate of the effect of the program.

This report is the first to share findings from the evaluation. Overall, the evaluation found that CUNY Start was implemented as it was designed and that there was considerable contrast between the program and the colleges’ standard courses and services. During the first semester of the study, program group students made much more progress through developmental education than control group students, while control group students earned more college credits, as predicted by CUNY Start’s designers. In the second semester, program group students enrolled at CUNY colleges (that is, participated in CUNY Start or enrolled in any non-CUNY Start courses as matriculated students) at a higher rate than control group students.

CUNY Start’s Theory of Change

CUNY Start’s underlying theory of change posits that students with substantial developmental course requirements are best served through an intensive model designed to build their academic preparedness and college skills *before* they matriculate. The program is designed to make students more engaged in their course work, help them view themselves as competent learners, give them the support they need to succeed, and prepare them for college-level work. The program’s low cost to students is expected to make it easier for them to participate. Because financial aid cannot be used to pay for CUNY Start, students can preserve their financial aid for future courses (developmental education courses and college-level courses).⁴

³Allen and Horenstein compare the outcomes of students in CUNY Start with a matched comparison group of students who did not enroll in CUNY Start but were similar with respect to their measurable characteristics (such as their number of developmental requirements). Such analyses rely on the assumption that after matching on measured characteristics, the students in CUNY Start and the comparison group also were similar with respect to their unmeasured characteristics that are related to the outcomes of interest (for example, tenacity and motivation). See Drew Allen and Aaron Horenstein, *CUNY Start: Analysis of Student Outcomes* (New York: City University of New York, 2013).

⁴Students are eligible to receive federal Pell Grants for only six years and New York State Tuition Assistance Program grants for up to eight semesters, with a maximum of six semesters at the associate’s degree level.

The program's designers hypothesize that compared with students in standard college courses (including standard developmental education courses), a higher proportion of CUNY Start students will complete developmental education and that they will do so more quickly. Because CUNY Start students spend a semester building their basic skills before matriculating, they are expected to earn fewer college credits in the short term. Over the longer term, the expectation is that CUNY Start students will have higher retention rates (that is, more of them will stay in college), will accumulate more college-level credits, and will eventually have higher graduation rates.

Evaluation Sample Members

CUNY Start is available to incoming students who have been assessed as requiring remediation.⁵ It offers a full-time program and a part-time program. The full-time program is only open to students who are assessed as needing remediation in math and at least one other subject area (reading, writing, or both). The part-time program, which provides instruction in math *or* reading and writing, is open to students who are assessed as needing remediation in at least one subject area. Although any student who requires remediation is eligible for CUNY Start (and was eligible for the evaluation), CUNY Start staff members focus on recruiting a narrower population of students: those who have been assessed as needing remediation in all three subject areas.

Students were randomly assigned to the program or control group before each of three semesters: spring 2015, fall 2015, and spring 2016. A total of 3,835 students were assigned. Students completed a questionnaire before they were randomly assigned, and that questionnaire shows that the research sample, like the broader student body at the colleges, is racially diverse, with many students whose native language is not English. Most students in the sample are women. Most reported that they lived with their parents, and very few said they had children. Most of the sample members were assessed as needing remediation in two or three subject areas, reflecting CUNY Start's efforts to recruit such students.

CUNY Start Model and Implementation

From spring 2015 to spring 2016, the evaluation collected information on the implementation of CUNY Start and the standard offerings at the four colleges using several data sources, including interviews with administrators and instructors, observations of classrooms, and surveys of students and instructors. Table ES.1 compares aspects of the program with standard college courses and services. The elements of administration, cost, and structure shown in the table are fixed and

⁵The program also admits a small number of students with some limited college experience (typically fewer than 12 college credits).

Table ES.1

Highlights of CUNY Start and Standard College Courses and Services

| Component | CUNY Start | Standard College Courses and Services |
|--|---|--|
| <u>Administration, cost, and structure</u> | | |
| Administration | Situated in Continuing Education; managed centrally | Situated in the Academic Affairs division; managed within academic departments |
| Cost to student | \$75; students not eligible for financial aid | Full-time tuition \$2,400; students may be eligible for financial aid |
| Structure | 1 semester of developmental math, reading, and writing; students cannot take college level courses that semester; up to 26.5 hours of instruction per week in the full-time program | Up to 3 semesters of developmental math, reading, and writing; students can take selected college-level courses; typically 12-16 hours of instruction per week for a full-time student |
| <u>Developmental math instructional approach</u> | | |
| Curriculum | Arithmetic and algebra integrated; problems emphasize conceptual understanding; assignments include activities that develop students' academic skills | Arithmetic and algebra taught separately; academic skill-building activities not prevalent |
| Pedagogy | Mostly student-centered instruction | Mostly lecture-based instruction |
| <u>Developmental reading/writing instructional approach</u> | | |
| Curriculum | Reading/writing content integrated; writing assignments designed to help students process and respond to reading material | Reading/writing content typically not integrated; writing assignments in upper-level courses include research synthesis papers |
| Pedagogy | Mostly student-centered instruction | Mostly student-centered instruction |
| <u>Student support</u> | | |
| College success seminar | Mandatory; most students take a seminar | Typically not mandatory; some students take a seminar |
| Advising | Student-to-adviser ratio 75:1; most surveyed students reported at least one one-on-one advising session in the past semester | Student-to-adviser ratio 600:1; many surveyed students reported at least one one-on-one advising session in the past semester |
| Tutoring | Almost half of surveyed students reported receiving tutoring | Approximately one-third of surveyed students reported receiving tutoring |

(continued)

Table ES.1 (continued)

| <u>Instructor hiring and training</u> | | |
|--|--|--|
| Hiring | Instructors hired based on content and pedagogical knowledge and openness to CUNY Start instructional approach | Instructors typically hired based on content knowledge |
| Training | Most instructors participated in an apprenticeship; continuing professional development was regular and common | Most instructors did not participate in training before teaching a course; continuing professional development was common but less regular and intensive |

SOURCES: Community College Research Center field research data; MDRC calculations using data from the instructor and student surveys; www2.cuny.edu/academics/academic-programs/model-programs/cuny-college-transition-programs/cuny-start; discussions with CUNY staff members.

were not explored in the implementation research, but they are included here to provide a comprehensive summary of the program. Overall, CUNY Start was implemented with fidelity to the program model, and there was a substantial contrast between the program and the colleges' standard courses and services, including their standard developmental education courses.

Administration, Cost, and Structure

CUNY Start is situated in each college's Continuing Education division, which offers a range of courses outside the academic departments, including job-skills courses and adult basic education. Administrators in CUNY's Office of Academic Affairs manage the program and professional development staff members provide training to CUNY Start instructors and advisers and develop program curricula. The CUNY Office of Academic Affairs works closely with CUNY Start directors at each college to operate the program, and provides administrative and evaluation support to ensure the program is well implemented and to measure its efficacy. Standard developmental education and college-level courses are situated in the colleges' academic departments, which are part of each college's Office of Academic Affairs.

As noted earlier, CUNY Start students pay only \$75 for the semester, including the course materials. They cannot use financial aid, which allows them to retain the aid for the future. In contrast, tuition and fees for full-time students at the four study colleges in fall 2015 was \$2,400 (for New York State residents), and many students were eligible for financial aid.

The structure of CUNY Start is unique. Its full-time program provides up to 26.5 hours of instruction per week during its one semester: 12 hours of math, 12 hours of integrated reading

and writing, and 1.25 to 2.5 hours in the college success seminar.⁶ CUNY Start’s part-time program provides 12 hours of instruction in either math or reading and writing, and 1.5 hours in the seminar. Students cannot take college-level courses during that semester. In contrast, students who are not in CUNY Start might take multiple developmental education courses over multiple semesters, and each course typically meets 3 to 6 hours per week. Students can take some college courses at the same time, and a full-time student usually receives 12 to 16 hours of instruction per week (including developmental education and college-level courses). CUNY Start’s more intensive instruction is intended to help students satisfy their developmental education requirements in one semester.

Math and Reading/Writing Instructional Approach

CUNY Start math and reading/writing instructors use prescribed curricula that were created by experienced faculty members and CUNY Start professional development staff members for program-wide use. Program curricula are regularly refined by the professional development staff based on comments from the instructors.

CUNY Start’s math instructional approach is markedly different from standard developmental math instruction. CUNY Start integrates arithmetic and algebra and encourages conceptual understanding, real-world learning, and the building of academic skills such as studying and note taking. It relies primarily on “student-centered” instruction: Instructors facilitate meaningful student discussion and engagement with the material, and frequently ask specific, open-ended questions to stimulate student discussion. Instructors in standard remedial math classes tend to use more lecturing.

CUNY Start teaches reading and writing integrated in one class, unlike many developmental courses, to reinforce the relationship between the two and to allow students to move more quickly through their developmental requirements. Unlike standard developmental reading and writing instruction, the CUNY Start instructional approach draws on the “cognitive apprenticeship” model, in which instructors aim to help students learn the habits and techniques of proficient readers and writers.⁷ In both CUNY Start and standard developmental reading and writing, instructors rely on student-centered instruction, so the pedagogical difference between CUNY and non-CUNY Start instruction is less substantial in reading and writing than it is in math.

⁶At most colleges, the college success seminar for full-time students meets for 2.5 hours for the first four sessions, and then 1.25 hours for the remaining sessions; however, some campuses offer a consistent 1.25- to 1.5-hour seminar for all full-time students.

⁷Allan Collins, John Seely Brown, and Susan E. Newman, *Cognitive Apprenticeship: Teaching the Craft of Reading, Writing, and Mathematics* (Champaign, IL: Center for the Study of Reading, University of Illinois at Urbana-Champaign, 1987).

Student Support

CUNY Start's student support is more integrated into the classroom than is typical at community colleges. CUNY Start's mandatory college success seminar, led by a CUNY Start adviser, aims to help students develop skills to balance school and life, solve problems, advocate for themselves, and view themselves as learners. Typically, non-CUNY Start students are not required to participate in a college success seminar. CUNY Start advisers, who are responsible for far fewer students than non-CUNY Start advisers, also meet with students outside the seminar to give them support during the program and to plan for their matriculation. CUNY Start math tutors and writing assistants provide help to students inside and outside of class. When surveyed, program group students were somewhat more likely than control group students to report that they had met with an adviser or a tutor outside of class.

Hiring and Training

Typically, college instructors are hired primarily based on their content knowledge (and of course their academic credentials). CUNY Start hires instructors based on their content and pedagogical knowledge, and their openness to the prescribed curriculum and pedagogy. Once hired, CUNY Start instructors are expected to participate in a semester of apprenticeship before they teach their own classes, during which time they observe and assist experienced instructors. After that semester, instructors continue to receive training. Most CUNY Start instructors surveyed for the study had participated in apprenticeships and almost all reported receiving comments on their instruction. In contrast, most non-CUNY Start developmental education instructors who were interviewed did not report participating in training before teaching a course for the first time. Many reported receiving some kind of professional development, but they participated for fewer hours than CUNY Start instructors.

The Effects of CUNY Start

- **During the first semester in the study, program group students made substantially more progress through developmental education than control group students, while control group students earned more college credits.**

This finding reflects CUNY Start's focus on reducing or eliminating developmental course requirements before students matriculate and is in line with the program's theory of change. As Table ES.2 shows, before random assignment similar percentages of program group students and control group students were "college-ready" in math, reading, and writing (according to their scores on placement tests, primarily). By the end of their first semester in the study (the "program semester") more program group students than control group students were college-ready in each of the subject areas (as demonstrated by their scores on exit tests or their completion of the highest level developmental education course in that subject area). The difference is largest

Table ES.2
Effects on Educational Achievement

| Outcome | Program Group | Control Group | Difference | P-Value |
|--|------------------|------------------|------------|---------|
| <u>Before random assignment</u> | | | | |
| College-ready in the subject area (%) | | | | |
| Math | 5.4 | 5.8 | -0.3 | 0.704 |
| Reading | 36.6 | 35.7 | 0.9 | 0.642 |
| Writing | 22.3 | 23.6 | -1.3 | 0.428 |
| <u>End of the program semester</u> | | | | |
| College-ready in the subject area (%) | | | | |
| Math | 56.8 | 24.7 | 32.1 *** | <0.001 |
| Reading | 69.7 | 61.6 | 8.0 *** | <0.001 |
| Writing | 61.0 | 51.6 | 9.4 *** | <0.001 |
| College-ready in all three subject areas (%) | 37.9 | 13.0 | 24.9 *** | <0.001 |
| College-level credits earned | 0.6 | 2.4 | -1.9 *** | <0.001 |
| Sample size (total = 3,835) | 2,997 | 838 | | |

SOURCES: MDRC calculations using CUNY Start application data, MDRC random assignment data, data from CUNY's Institutional Research Database, and test data from CUNY's Administrative Data Warehouse.

NOTES: Rounding may cause slight discrepancies in sums and differences.

All values are weighted to account for random assignment ratios that vary across random assignment blocks.

Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. See Appendix E for details on the impact-estimation model.

in math: By the end of the program semester, 57 percent of program group students were college-ready in math, compared with 25 percent of control group students. By the end of the program semester, 38 percent of program group students were college-ready in all three subject areas, compared with 13 percent of control group students. Using transcript data from CUNY, Table ES.2 also shows that program group students earned fewer college credits than control group students in the program semester. This result is expected, since CUNY Start students had not

matriculated and therefore could not earn college-level credits, while control group students had matriculated and did enroll in some college-level courses.⁸

- **During the second semester, program group students enrolled at CUNY colleges (that is, participated in CUNY Start or enrolled in any non-CUNY Start courses as matriculated students) at a higher rate than control group students.**

Sixty-nine percent of the program group enrolled at CUNY colleges during the second semester of the study, compared with 64 percent of the control group. This difference mostly reflects the fact that program group students participated in CUNY Start at a higher rate than control group students. Similar percentages of the two groups enrolled in any non-CUNY Start courses. (These findings are not shown in a table.)

- **In each of the subgroups of students examined, the program group made more progress in developmental education and earned fewer college credits in the program semester than the control group.**

The findings for the full research sample represent the program's effects on average. Different types of students, however, may respond differently to CUNY Start or the services available to the control group, and thus, the effects may vary among different groups of students. Several different subgroups of students were examined, including: those who intended to participate in CUNY Start full time or part time; those who required remediation in all three subjects and those who required remediation in only one or two; those at each of the four colleges in the study; those of various races/ethnicities; and men and women. Analyses show that CUNY Start had positive effects on progress through developmental education and negative effects on college credits earned in the program semester for all groups examined.

Discussion of Findings and Looking Forward

Within one semester, CUNY Start enabled students to make substantial progress through developmental education — more progress than has been seen in most other developmental education reforms that have been evaluated in random assignment studies.⁹ The program is meeting

⁸The report includes findings on enrolling at CUNY colleges in the program semester, defined as participating in CUNY Start or enrolling in any non-CUNY Start courses as a matriculated student. A higher proportion of program group students than control group students enrolled at CUNY colleges in that semester. An analysis described in the report strongly suggests that the effects reported here on completing developmental education and accumulating college credits in the program semester are not simply the result of this enrollment effect.

⁹See, for example, A.W. Logue, Mari Watanabe-Rose, and Daniel Douglas, "Should Students Assessed as Needing Remedial Mathematics Take College-Level Quantitative Courses Instead? A Randomized Controlled Trial" (*Educational Evaluation and Policy Analysis* 38, 3: 578-598, 2016); Susan Scrivener, Michael J. Weiss,

its goal of helping students substantially reduce or complete their developmental education requirements within a semester. The effects in math are especially striking, since developmental math is a barrier that prevents many students from earning a degree.¹⁰ CUNY Start’s short-term success is also striking given that the program targets students with substantial developmental course requirements, in contrast to many other reforms.¹¹ By enabling students to make substantial progress in or complete their developmental education requirements, CUNY Start can help students maintain their future financial aid eligibility — repeating developmental courses, which is a common occurrence for students taking standard developmental education courses, can affect students’ ability to make “satisfactory academic progress” for continued aid eligibility.¹² The greater progress students make through developmental education can also help them avoid reaching the limits on their aid.

The positive early results in this report are only part of the story. It is essential to learn how the trade-off of making a short-term priority of developmental education rather than college-level credit accumulation will play out in the longer term. Additional follow-up data in this evaluation will provide information about sample members’ persistence in college, college credit accumulation, and graduation rates. If CUNY Start’s short-term trade-off results in the hypothesized longer-term gains, the program will serve as an important model for serving students with substantial developmental education requirements.

The research team will track the academic progress of students in the study for at least two years after they were randomly assigned and will examine the program’s costs. A report on longer-term effects and cost-effectiveness is scheduled to be published by MDRC in 2020. In addition, the Community College Research Center will publish two papers focused on CUNY Start’s math curriculum and pedagogy and its staffing and professional development model. Finally, CUNY will develop a tool kit on CUNY Start implementation and best practices, focusing on CUNY’s use of data to inform program management and refinement.

Alyssa Ratledge, Timothy Rudd, Colleen Sommo, and Hannah Fresques, *Doubling Graduation Rates: Three-Year Effects of CUNY’s Accelerated Study in Associate Programs (ASAP) for Developmental Education Students* (New York: MDRC, 2015); and Elizabeth Zachry Rutschow and Emily Schneider, *Unlocking the Gate: What We Know About Improving Developmental Education* (New York: MDRC, 2011).

¹⁰Paul Attewell, David Lavin, Thurston Domina, and Tania Levey, “New Evidence on College Remediation” (*Journal of Higher Education* 77, 5: 886-924, 2006).

¹¹Logue, Watanabe-Rose, and Douglas (2016).

¹²Satisfactory academic progress requirements vary from college to college and can include not attempting too many credits (generally more than 150 percent of the credits required for a degree), maintaining a cumulative grade point average of 2.0 or higher, completing at least two-thirds of credits attempted, and, at some colleges, completing a certain number of credits by the end of each year. See Judith Scott-Clayton and Lauren Schudde, “Performance Requirements in Need-Based Aid: What Roles Do They Serve, and Do They Work?” (New York: Center for Analysis of Postsecondary Education and Employment, Teachers College, Columbia University, 2017); <https://studentaid.ed.gov/sa/eligibility/staying-eligible>.

About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York; Oakland, California; Washington, DC; and Los Angeles, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff members bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-prisoners, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.