PATHWAY TO COLLEGE ACHIEVEMENT

A Mixed-Methods Evaluation of the Male Student Success Initiative for Men of Color

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BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

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OVERVIEW

Access to college has increased substantially over the last 50 years, but student success—defined as the combination of academic achievement and degree or certificate completion—has largely remained stagnant. The gap between access and success is particularly noteworthy for male Black and Hispanic students, whose college completion rates lag those of White students and female students of any race or ethnicity.

To address these patterns, the Community College of Baltimore County (CCBC) created the Male Student Success Initiative (MSSI) in 2014. The program was designed to support male students of color throughout their academic journeys. In partnership with CCBC, MDRC, through it's Men of Color College Achievement (MoCCA) project, evaluated a redesigned MSSI program that provided a culturally relevant student success course as well as comprehensive support services such as mentoring and academic development workshops.

An earlier report presented findings on how MSSI was implemented in 2019, the first year of the MoCCA study. This report presents findings from a mixed-methods evaluation that covered the entire program period from 2019 to spring 2022. The evaluation consisted of: (1) a randomized controlled trial to estimate the effects of MSSI on student academic progress, using a sample of 514 students, (2) implementation research that focused on how the program was put into effect, (3) qualitative research to obtain a deeper understanding of the student perspective and context, and (4) cost analyses. This report provides the first causal estimates of the effects of a college program targeting male students of color on academic outcomes.

KEY FINDINGS

- The study found that MSSI program components were implemented inconsistently. Despite the implementation challenges, however, MSSI program features created a substantially different experience for students in the program group compared with students in the control group.
- MSSI had positive effects on enrollment in a student orientation course and on passing the orientation course in the first semester—two measures of academic success. The program also had positive effects on increasing students' ability to perform better in the courses they took after the MSSI program year. However, the program did not affect persistence or credits earned.
- Program impacts were concentrated among first-generation students.
- The average cost of the two-semester program was $885 per student.

It is important to note that this evaluation of MSSI occurred during two national crises that deeply affected the program, its staff, and its students. The first—the COVID-19 pandemic—forced CCBC to change the modality of learning as most classes moved to a virtual format. Second, the killing of unarmed Black people in 2020, including Ahmaud Arbery in February, Breonna Taylor in March, and George Floyd in May, and the resulting public demonstrations, had special salience for MSSI students and staff and also led to some campuswide changes at CCBC. That MSSI had positive effects in this extraordinarily challenging context suggests that the program might generate larger impacts with stronger implementation, though the study design does not permit a conclusive answer.

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The Authors

EXECUTIVE SUMMARY

Access to college has increased substantially over the last 50 years, but student success—defined as the combination of academic achievement and degree or certificate completion—has largely remained stagnant. The gap between access and success is particularly noteworthy for Black and Hispanic students, whose college completion rates lag those of White students. Male students of color also have lower rates of enrollment and completion than females.[1]

The research literature is rich with theories about the challenges faced by male students of color who strive to achieve college success and completion. Three broad factors seem to have the most support for explaining the inequality in outcomes for these students: (1) insufficient college preparation,[2] (2) nonacademic barriers to persistence, including insufficient financial support,

1. Terrell L. Strayhorn, "When Race and Gender Collide: Social and Cultural Capital's Influence on the Academic Achievement of African American and Latino Males," *The Review of Higher Education* 33, 3 (2010): 307-332; National Center for Education Statistics, "Total Fall Enrollment in Degree-Granting Postsecondary Institutions, by Level of Enrollment, Sex, Attendance Status, and Race/Ethnicity or Nonresident Alien Status of Student: Selected Years, 1976 through 2020," Digest of Education Statistics, Table 306.10 (Washington, DC: U.S. Department of Education, 2021a); National Center for Education Statistics, "Graduation Rate from First Institution Attended for First-Time, Full-Time Bachelor's Degree-Seeking Students at 4-Year Postsecondary Institutions, by Race/Ethnicity, Time to Completion, Sex, Control of Institution, and Percentage of Applications Accepted: Selected Cohort Entry Years, 1996 Through 2014," Digest of Education Statistics, Table 326.10 (Washington, DC: U.S. Department of Education, 2021b); National Center for Education Statistics, "Graduation Rate from First Institution Attended Within 150 Percent of Normal Time for First-Time, Full-Time Degree/Certificate-Seeking Students at 2-Year Postsecondary Institutions, by Race/Ethnicity, Sex, and Control of Institution: Selected Cohort Entry Years, 2000 through 2017," Digest of Education Statistics, Table 326.20 (Washington, DC: U.S. Department of Education, 2021c); Anthony Jr. Marshall, Andrew Howard Nichols, and Wil Del Pilar, "Raising Undergraduate Degree Attainment Among Black Women and Men Takes on New Urgency Amid the Pandemic," May (Washington, DC: The Education Trust, 2021).
2. C. Adelman, *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972–2000* (Washington, DC: Institute of Education Sciences, U.S. Department of Education, 2004); Paul Attewell, Scott Heil, and Liza Reisel, "What Is Academic Momentum? And Does It Matter?" *Educational Evaluation and Policy Analysis* 34, 1 (2012): 27–44; T. Bailey, D.W. Jeong, and S.W. Cho, "Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges," *Economics of Education Review* 29, 2 (2010): 255–270; M. Perry, P.R. Bahr, M. Rosin, and K.M. Woodward, "Course-Taking Patterns, Policies, and Practices in Developmental Education in the California Community Colleges" (Mountain View, CA: EdSource, 2010).

psychological factors, and discriminatory practices,[3] and (3) inadequate social, emotional, and campus support.[4]

Increased attention has been devoted to these challenges both inside and outside of academia. To address those gaps, many community colleges and four-year institutions have developed programming specifically aimed at supporting male students of color or have joined institutional networks to share best practices for improving outcomes for this group. The underlying philosophy of most such programs is that providing these students with additional social, personal, and academic support can improve retention and completion rates. Most programs seek to achieve this not only by working with students as individuals but by forming a supportive community designed to encourage students to build both internal resources and external connections that can help them persist, succeed, and ultimately graduate.

While there is extensive qualitative literature on the implementation and value of these programs, there are few quantitative studies of the effect of this type of programming on academic outcomes. To that end, this report presents findings from a mixed-methods evaluation by MDRC of the Male Student Success Initiative (MSSI) at the Community College of Baltimore County (CCBC). It provides the first causal estimates of the effects on academic outcomes of a college program targeting male students of color.

BACKGROUND OF THE MSSI PROGRAM

The MSSI program, which has operated at CCBC in Baltimore, Maryland, since 2014, is being evaluated by MDRC through its Men of Color College Achievement (MoCCA) project, in partnership with CCBC. MSSI was expanded in 2019 as part of the MoCCA study from a one-semester program to a two-semester program and extended to all students self-identifying as males of color, including Blacks, Hispanics, Asians, and members of other ethnic groups. The program was envisioned to lead ultimately to graduation or transfer to a four-year institution by supporting noncognitive outcomes such as:

- Improved academic self-efficacy and the belief that one can achieve a specific academic goal.

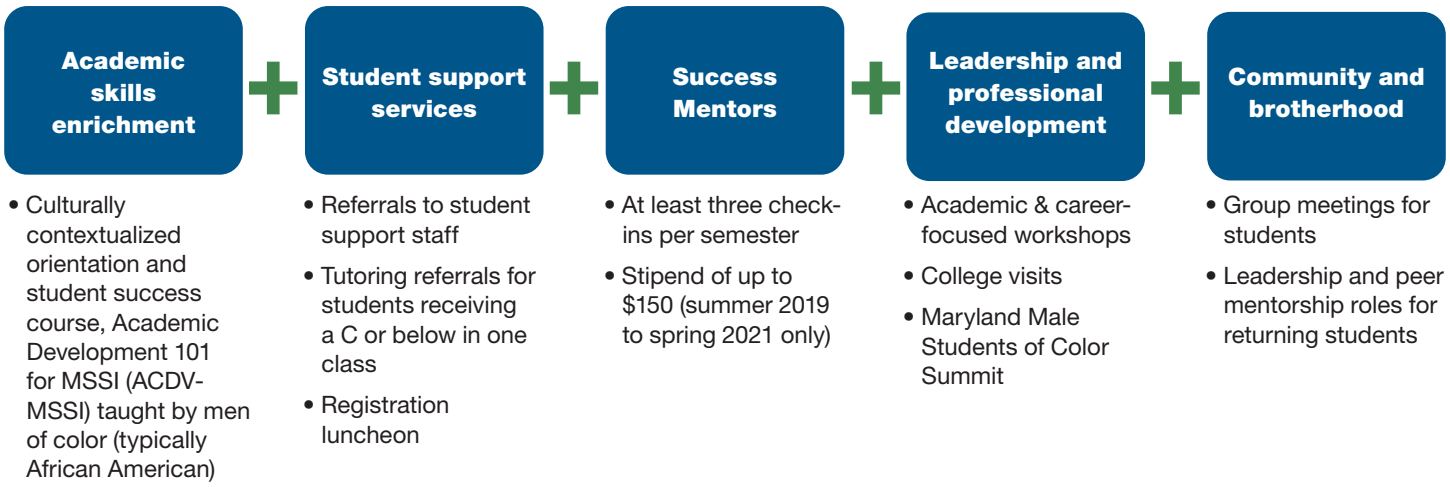
3. R.T. Palmer, R.J. Davis, J.L. Moore, and A.A. Hilton, "A Nation at Risk: Increasing College Participation and Persistence Among African American Males to Stimulate U.S. Global Competitiveness," *Journal of African American Males in Education* 1, 2 (2010): 105-124; Gregory M. Walton and Geoffrey L. Cohen, "A Question of Belonging: Race, Social Fit, and Achievement," *Journal of Personality and Social Psychology*, 92, 1 (2007): 82-96; G.M. Walton and G.L. Cohen, "A Brief Social-Belonging Intervention Improves Academic and Health Outcomes of Minority Students," *Science* 331 (2011): 1447-1451; Claude M. Steele and Joshua Aronson, "Stereotype Threat and the Intellectual Test Performance of African Americans," *Journal of Personality and Social Psychology* 69, 5 (1995): 797-811.

4. John Michael Lee, Jr., and Tafaya Ransom, *The Educational Experience of Young Men of Color: A Review of Research, Pathways, and Progress* (New York: The College Board, 2011); Shaun R. Harper, "Bibliography on Black Undergraduate Men: Books, Reports, and Peer-Reviewed Journal Articles" (Philadelphia: Center for the Study of Race and Equity in Education, University of Pennsylvania, 2012).

- An increase in help-seeking behaviors, such as asking for help from others, to improve students' performance and understanding when they are struggling.
- More positive adult relationships through which students accept the supports offered by advisors, counselors, and coaches.
- A sense of belonging in the college community and a reduced sense of isolation through identification with the MSSI program.
- Increased community and brotherhood through scheduled gatherings and other key events that help students foster relationships with each other and with MSSI staff members.

To accomplish this, MSSI was designed to have five program components: academic skills enrichment through a culturally contextualized section of Academic Development 101 (ACDV 101)—a required one-credit course; student support services, including referrals to tutors and other supports; assigned Success Mentors; leadership and professional development activities; and community and brotherhood activities. (See Figure ES.1 for more information about the program components.)

FIGURE ES.1 MSSI Program Components as Designed



MDRC's mixed-methods evaluation consisted of: (1) a randomized controlled trial to estimate the effects of MSSI on student academic progress, in which eligible students were randomly assigned to either a program group and offered MSSI services as well as all other support services available on campus, or to a control group that only had access to the support services available to all students at CCBC, (2) implementation research that focused on how the program was put into effect, fidelity to the design, service contrast, and service use by students, (3) qualitative

research to obtain a deeper understanding of the student perspective and context, and (4) cost analyses.[5]

An earlier report presented findings on how the MSSI program was implemented during the first year of the MoCCA study in 2019, using an early sample of students enrolled in the program.[6] That report found that there was a limited set of resources to support the program and program leadership had little available time to oversee the program. The report also found that CCBC struggled to implement MSSI consistently. This report covers the entire program period from 2019 to spring 2022 and includes the full sample of 514 students.

FINDINGS

- **MSSI did not operate as intended. However, despite implementation challenges, the MSSI program features represented a substantially different experience for students in the program group compared with students in the control group who were not enrolled in the program.**

Students did not participate in MSSI services at expected levels before the pandemic, and difficulties in engaging students in program activities were particularly noticeable after the start of the pandemic. The program features were purposefully evolved over time and not all program components were implemented as originally planned. Yet, an analysis of qualitative data, including interviews with staff members, focus groups with program group students and control group students, classroom observations, and observations of other MSSI activities, shows that the intervention's features represented a substantially different experience for students in the program group compared with students in the control group.

- **From the beginning of the study period, the MSSI program experienced staffing changes at all levels, including day-to-day management, program leadership, and Success Mentors, among those who interacted with the students.**

These changes affected all MSSI program components and may have influenced program implementation and implementation fidelity. In 2019, day-to-day program responsibilities and oversight of the Success Mentors were led by a faculty liaison—a full-time faculty member with six hours (the equivalent of two classes) allocated specifically for MSSI. Throughout 2019, the day-to-day management position experienced significant turnover. Two individuals left the role within the year, leaving the position vacant in each instance for a period of time. To stabilize

5. The MoCCA study and analysis plan is pre-registered (ID# 1785.1v2) with the Registry of Efficacy and Effectiveness Studies (REES), developed by the Society for Research on Educational Effectiveness. The goal of REES is to increase transparency for studies seeking to draw causal conclusions within the education research and evaluation community. The study was initially registered on August 21, 2019, and revised on August 3, 2020, prior to any quantitative data analysis.

6. Michelle S. Manno, Dominique Dukes, Oscar Cerna, and Colin Hill, *Pushing Toward Progress: Early Implementation Findings from a Study of the Male Student Success Initiative* (New York: MDRC, 2020).

MSSI's management and to address challenges arising from the limited capacity of the previous managers, a full-time staff member was hired in summer 2020. Furthermore, in late 2020-early 2021, MSSI program leadership transitioned from a dean to a vice president, which raised the program's profile among college leadership.

- **The COVID-19 pandemic exacerbated difficulties in program operation and student engagement.**

In March 2020, CCBC announced a travel ban for staff and students, cancelled all in-person classes, cancelled and postponed all major events on campus, and began preparation for remote instruction and teleworking. Classes largely remained remote through the end of the spring 2020 semester, and nearly all staff were directed to work from home or "be at home" if unable to telework.

MSSI students experienced various challenges adapting to the pandemic-induced virtual learning environment. Those who participated in focus groups after the start of the pandemic frequently noted their difficulties and displeasure with virtual learning. These students cited numerous instances of struggling to stay focused on learning course content amid the distractions of being at home such as other family members who were also attending online classes or working within close quarters. Some students missed having the face-to-face, dynamic interactions with other students and teachers that they were usually afforded in class. Others cited a lack of consistent communication with their professors, whom they would normally try to approach either before or right after class to receive immediate help, compared with waiting for them to respond to emails during the pandemic.

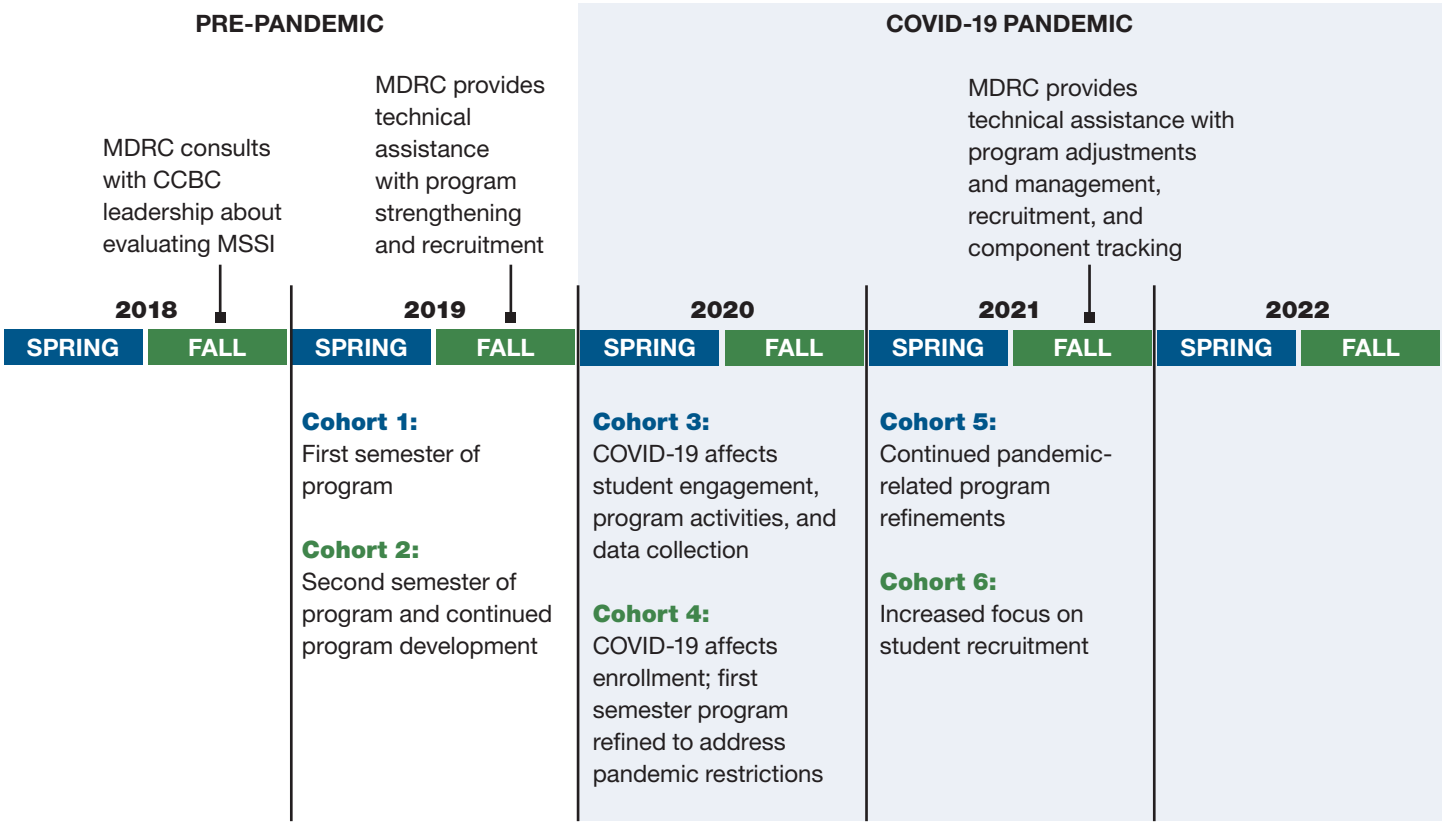
- **The pandemic also disrupted the experimental evaluation of the MSSI model, creating two subsamples with different experiences and contributing to a smaller evaluation sample.**

The evaluation period ran from 2019 through spring 2022, which resulted in some students in the study sample receiving services during the pre-pandemic period (2019) and others receiving services during the pandemic (2020 through spring 2022). Specifically, the study sample is divided between those who experienced the program in-person (204 students or about 40 percent of the sample) and those who experienced the program virtually during the pandemic (310 students or about 60 percent of the sample). See Figure ES.2 for the implementation timeline. As a result, while results for the full sample are reported, some analyses divide the sample into pre-pandemic and pandemic groupings.

- **The MSSI program had positive effects on enrollment in the student orientation course and passing the orientation course in the first semester—two measures of academic success. The program also had positive effects on increasing students' ability to perform better in the courses they took after the MSSI program year.**

The MSSI program increased enrollment in ACDV by 10.3 percentage points (above the control group mean of 56.1 percent) during the first semester of the intervention and increased passing the course in the first semester by 15.2 percentage points (above the control group mean of 28.1

FIGURE ES.2 MoCCA Implementation Timeline



percent). The program did not affect enrollment, credits attempted, or credits earned in the first two semesters. (See Table ES.1.)

After the MSSI program year, the program increased students' ability to perform better within courses they took.[7] Program group members were 7.3 percentage points more likely (12.5 percent compared with 5.2 percent) to earn an A, B, or C in all courses relative to control group members in the fourth semester. When grades from the ACDV course—part of the intervention—are excluded from the grade calculations, program group members were 6.3 percentage points more likely than control group members to earn an A, B, or C in all other courses (12.3 percent compared with 6 percent) in the fourth semester. It is unclear why impacts were present in the fourth semester and not the third semester. There is no evidence that the MSSI program affected persistence or completion in any semester. (See Table ES.2.)

7. Note that the sample is limited to the first three cohorts, as these students experienced a full post-program year at the time of reporting.

TABLE ES.1 Academic Outcomes, Semesters 1 and 2, Full Sample

Outcome	Program Group	Control Group	Impact	P-Value	Standard Error
Enrolled (%)					
1st semester	81.4	78.5	3.0	0.406	3.6
2nd semester	51.3	46.9	4.4	0.408	5.3
Enrolled in ACDV class (%)					
1st semester	66.4	56.1	10.3 **	0.012	4.1
2nd semester	7.2	10.7	-3.4	0.261	3.1
Passed ACDV class (%)					
1st semester	43.4	28.1	15.2 ***	0.000	4.2
2nd semester	2.3	4.8	-2.5	0.227	2.1
Credits attempted[a]					
1st semester	7.5	7.8	-0.3	0.490	0.5
2nd semester	5.1	5.0	0.2	0.788	0.6
Credits earned					
1st semester	4.3	3.9	0.3	0.446	0.4
2nd semester	2.9	2.6	0.3	0.496	0.5
Sample size (total = 514)	304	210			

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Second semester estimates do not include cohort 6. The sample size for second semester outcomes is 206 for the program group and 169 for the control group (375 total). Estimates may reflect rounding.
[a]Includes class withdrawals, dropped classes, and incompletes.

- **Program impacts were concentrated among first-generation students.**

The intervention induced higher ACDV enrollment among first-generation students in the first semester (68.2 percent of program group members enrolled in ACDV in the first semester compared with 39.8 percent of control group members, a 28.4 percentage point increase). Non-first-generation students in the program group and the control group, on the other hand, had similar rates of enrollment in ACDV students (65.5 percent of non-first-generation program group members enrolled in ACDV in the first semester compared with 62.4 percent of control group members). The difference in first-semester ACDV enrollment between first-generation students and non-first-generation students is 23.5 percentage points (not shown in table), which is statistically significant.

TABLE ES.2 Academic Outcomes After the MSSI Program Year, Cohorts 1 to 3

Outcome	Program Group	Control Group	Impact	P-Value	Standard Error
Enrolled (%)					
3rd semester	40.4	32.9	7.5	0.234	6.3
4th semester	33.6	26.0	7.6	0.220	6.2
Credits attempted[a]					
3rd semester	3.8	3.6	0.2	0.721	0.7
4th semester	2.9	2.6	0.3	0.639	0.7
Credits earned					
3rd semester	2.4	1.9	0.5	0.318	0.5
4th semester	1.9	1.6	0.3	0.531	0.5
Received A, B, or C in all courses (%)					
3rd semester	10.5	8.6	1.9	0.639	4.0
4th semester	12.5	5.2	7.3 **	0.048	3.6
Excluding ACDV					
Received A, B, or C in all courses (%)					
3rd semester	10.5	8.6	1.9	0.639	4.0
4th semester	12.3	6.0	6.3 *	0.092	3.7
Sample size (total = 256)	122	134			

SOURCES: MDRC calculations using transcript data from the Community College of Baltimore County.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Estimates may reflect rounding.

[a]Includes class withdrawals, dropped classes, and incompletes.

- **The average cost of the program was $885 per student. However, cost effectiveness cannot be determined at this point.**

The estimated cost of Success Mentors varied from $29,101 in spring 2019 to $5,414 in fall 2021. This variation reflects the change in the number of Success Mentors across terms (from seven in spring 2019 to one to three in fall 2021). The amount of time Success Mentors spent on MSSI activities also varied by term. In contrast, administrator costs were relatively stable over time. The cost per student ranged from a high of $1,474 per student in spring 2019 to a low of $273 per student in fall 2021 because of the variation noted above as well as the change in the number of program group students in their first or second terms. The overall average cost was $885 per student. This average cost per student was $1,046 in the pre-pandemic period and $815 in the pandemic period. Because there were no early impacts on persistence and completion, cost ef-

fectiveness calculations could not be performed. As a result, it is not possible to ascertain whether MSSI was more cost effective than the status quo.

CONCLUSION

This report provides the first causal estimates of the effect of a program for men of color on academic outcomes. The findings suggest that a program that combines academic advising and coaching, academic and study skills training, leadership training and career development, mentoring, and special events and workshops can improve some academic success measures, such as earning course grades of A, B, or C. The findings also suggest that such programming can have a bigger impact on outcomes for first-generation male students of color compared with their non-first-generation counterparts.

It is important to remember that the evaluation of MSSI was impacted by two significant changes in context. The first—the global COVID-19 pandemic—affected both students and administrators, and resulted in a change in learning modality as CCBC moved all classes online in the spring of 2020 to mitigate COVID-19 transmission rates. The second consisted of a rash of killings of unarmed Black people in 2020, including Ahmaud Arbery in February, Breonna Taylor in March, and George Floyd in May, as well as 17 more fatal police shootings of unarmed Black men across the country that year.[8] These killings coincided with the pandemic and likely affected both students and MSSI staff differentially, as research suggests that the death of George Floyd resulted in widespread anger and sadness, which was most pronounced among Black Americans.[9]

This challenging context, combined with the implementation challenges, suggest that the program has promise to generate larger impacts with stronger implementation, though the study design does not permit a conclusive answer.

8. The number of police shootings of unarmed Black men are author's calculations using the fatal shootings database compiled by The Washington Post ("Fatal Force: 1,047 People Have Been Shot and Killed by Police in the Past Year." Accessed July 5, 2022, website: https://www.washingtonpost/data-police-shootings). Other research places the figure of unarmed Black men shot by police at 22 per year (Robert VerBruggen, Fatal Police Shootings and Race: A Review of the Evidence and Suggestions for Future Research (New York: Manhattan Institute, 2022)).

9. Johannes C. Eichstaedt, Garrick T. Sherman, Salvatore Giorgi, Steven O. Roberts, Megan E. Reynolds, Lyle H. Ungar, and Sharath Chandra Guntuku, "The Emotional and Mental Health Impact of the Murder of George Floyd on the U.S. Population," *Proceedings of the National Academy of Sciences* 118, 39 (2021): 1-5.

1

Introduction

Access to college has increased substantially over the last 50 years, but student success—defined as the combination of academic achievement and degree or certificate completion—has largely remained stagnant.[1] The gap between access and success is particularly noteworthy for Black and Hispanic students, whose college completion rates lag those of White students. Male students of color also have lower rates of enrollment and completion than female students.[2]

To address those gaps, many community colleges and four-year institutions have developed programming specifically aimed at supporting male students of color or have joined institutional networks to share best practices for improving outcomes for this group.[3] The underlying philosophy of most such programs is that providing these students with additional social, personal, and academic support can improve retention and completion rates.[4] Most programs seek to achieve this not only by working with students as individuals but by forming a supportive community designed to encourage students to build both internal resources and external connections that can help them persist, succeed, and ultimately graduate. Qualitative research has shown that these programs for male students of color provide a sense of belonging, support peer bonding, and encourage academic success and retention by validating goals and normalizing help-seeking behaviors.[5]

A review of more than 80 programs developed for men of color at postsecondary institutions across the country found that the most common program components are:[6]

1. Strayhorn and DeVita (2010); Bound, Lovenheim, and Turner (2010).
2. Strayhorn (2010); National Center for Education Statistics (2021a, 2021b, 2021c); Anthony, Jr., Nichols, and Del Pilar (2021).
3. See Brooms (2018a, 2018b); Gardenhire and Cerna (2016). Examples of institutional networks include the National Consortium on College Men of Color and the Minority Male Community College Collaborative (M2C3) led by Dr. Frank Harris and Dr. J. Luke Wood from the Community College Equity Assessment Lab (CCEAL) at San Diego State University, and the Texas Education Consortium for Male Students of Color led by Dr. Victor Sáenz, Dr. Emmet Campos, and Dr. Luis Ponjuán as part of Project MALES (Mentoring to Achieve Latino Educational Success).
4. Brooms (2018a).
5. Strayhorn (2012); Brooms (2018b; 2019); Harper and Kuykendall (2012); Rodriguez, Lu, and Bukoski (2016).
6. Gardenhire and Cerna (2016).

- Academic advising/coaching
- Academic and study skills training
- Leadership training and career development
- Mentoring
- Special events and workshops

Over half of the programs in the scan include all five types of components, with 90 percent incorporating some form of mentoring, but only 60 percent offering academic advising/coaching. This spread in the mix of components in programming for males of color reflects the literature, which recommends multiple types of interventions without offering much guidance about the specific components a program should include. While there is experimental support for three of the above components—specifically, academic advising, student success courses, and mentoring—the causal effects of these programs are mixed, and it is unclear whether some components are more effective than others.[7] As a result, dedicated administrators and practitioners often develop programs on their own with little practical, evidence-based guidance about program implementation and assessment.

THE COMMUNITY COLLEGE OF BALTIMORE COUNTY'S APPROACH TO IMPROVING OUTCOMES FOR MEN OF COLOR

This report is focused on evaluation outcomes of the Community College of Baltimore County's (CCBC) Male Student Success Initiative (MSSI). An earlier brief by MDRC reported on initial program implementation findings.[8] This report covers full implementation, sharing qualitative and quantitative findings from the mixed methods evaluation. (See Box 1.1 for more information about CCBC.)

The MSSI program has operated at CCBC since 2014.[9] It was expanded in 2018 as part of the MDRC study from one semester to two and extended to all students self-identifying as males of

7. Bettinger and Baker (2014); Scrivener and Weiss (2009); Karp, Raufman, Efthimiou, and Ritze (2015); Rutschow-Zachry, Cullinan, and Welbeck (2012); Scrivener, Sommo, and Collado (2009); Visher, Butcher, and Cerna (2010).
8. Manno, Dukes, Cerna, and Hill (2020).
9. CCBC first launched a male of color initiative in 1990, with an all-African American male orientation course. This program was refined under the college's participation in Achieving the Dream—a large-scale reform network—to focus on Academic Development 101: Transitioning to College course (ACDV) in 2009. The program was again refined in 2013 to include high-impact practices based on the college's participation in the Association of American Colleges and Universities' Roadmap project.

BOX 1.1 Facts About CCBC

Location: Baltimore County, MD

Campuses: three main campuses and three extension centers

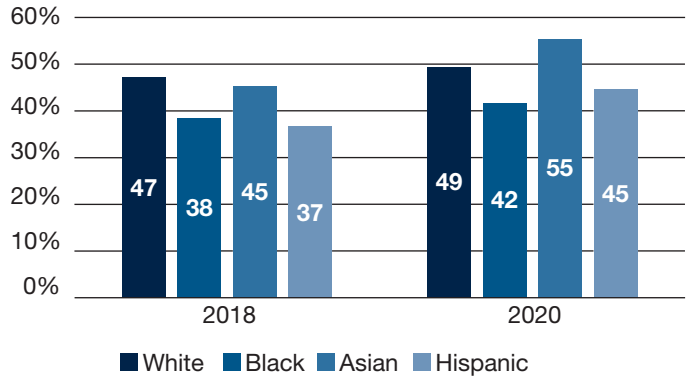
Credit student enrollment (2020): 25,200

Full-time student enrollment (2020): 10,400

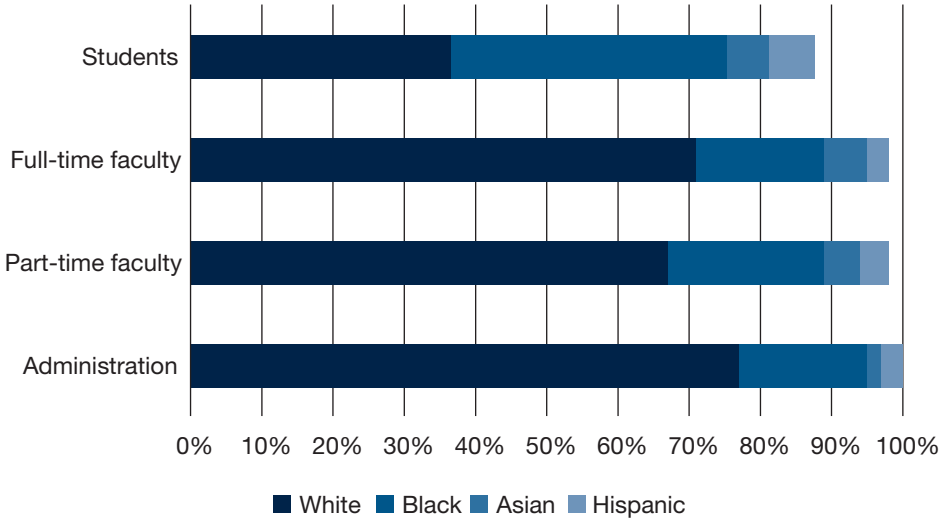
Students who are Baltimore City residents (2021): 12.5%

Students who are Baltimore County residents (2021): 65.5%

Four-Year Graduation/Transfer Rates for CCBC Students, 2018 and 2020



Race/Ethnicity of CCBC Students, Faculty, and Administrators (Fall 2020)



Source: Community College of Baltimore County Fact Book (2022).

color, including Black, Hispanic, Asian, and other ethnicities. It was designed to support students throughout their academic journeys, leading ultimately to graduation or transfer to four-year institutions, by supporting noncognitive outcomes such as academic self-efficacy and internal locus of control.[10] MSSI has five program components (summarized in Table 1.1) and students enrolled in MSSI are expected to participate in all of them:

TABLE 1.1 MSSI Program Components as Designed

MSSI Program Component	Activities
Academic skills enrichment	• Culturally contextualized orientation and student success course, Academic Development 101 for MSSI (ACDV-MSSI) taught by men of color (typically African American)
Success Mentors	• At least three check-ins per semester. From summer 2019 through spring 2021, students participating in their MSSI mentoring sessions were eligible for a $50 stipend for attending each session, for a maximum of $150 for the semester. • Review of coursework, help with registration, referral to other support services as needed
Student support services	• Referrals to student support staff • Tutoring referrals for students receiving a C or below in one of their classes • Registration luncheon to register for classes in the next semester
Leadership and professional development	• Academic and career-focused workshops • College visits • Maryland Male Students of Color Summit
Community and brotherhood	• MSSI orientation meeting for new participants • Group meetings where students can talk about the issues they are experiencing and solve problems together • Leadership and peer mentorship roles for returning students

Academic skills enrichment. This component primarily consists of Academic Development 101: Transitioning to College (ACDV), a mandatory, one-credit college transition course that can be applied toward a degree. ACDV is required for most first-year, first-time students at CCBC and focuses on improving study habits, applying for financial aid, strengthening financial literacy, selecting classes, and exploring career options. The MSSI sections of ACDV (ACDV-MSSI) are taught by adjunct faculty who are males of color (typically African American) who

10. Academic self-efficacy refers to students' belief that they can achieve a specific academic goal. See Bandura (1977). Locus of control concerns a person's expectancy for reinforcement. An individual with an internal locus of control believes that reinforcement is contingent on his or her own behavior as opposed to luck, chance, or powerful others. See Duttweiler (1984).

have received training in stereotype threat, implicit bias, and their effect on instruction; these instructors also receive guidance on including culturally relevant materials in the syllabus.[11] In the ACDV-MSSI courses, instructors use a distinctive male-of-color lens through which to guide the discussions and the course content, often drawing on their own lived experiences as well as those of the students.

Success Mentors. Part-time, paid staff members from a variety of professional backgrounds provide academic coaching and mentorship. Success Mentors are prioritized to be males of color, in order to have a shared identity with students. Each Success Mentor is paired with an MSSI student and the two meet at least three times a semester. The goal is for the mentor to develop a stable relationship with his mentee and stay with him throughout the program. Success Mentors assess students' needs in specific areas such as financial challenges, learning disabilities, writing support, tutoring support, counseling, or career service needs, and then direct the students to the relevant supports. Success Mentors are also responsible for tracking the outcome of each meeting in MSSI's participation management information system (MIS). Students sign an agreement at the start of the program and are reminded of their commitment if they fail to follow through.

Student support services. Success Mentors and ACDV-MSSI instructors refer students to tutoring, financial aid, and other on-campus services and supports using a list of college staff members identified as MSSI liaisons in various student support services offices. Staff members from these offices are invited to ACDV-MSSI classes to promote their services and to ensure that students form initial connections with these resources.[12]

Leadership and professional development. MSSI includes required workshops on topics such as socio-emotional intelligence, career and professional development, and leadership development.

Community and brotherhood. Both inside and outside the classroom, MSSI seeks to foster community through culture- and identity-focused activities and group meetings. Group meetings give the students a forum to talk about the issues they are experiencing and to solve problems together.

CCBC's MSSI program is designed to:

- Improve academic self-efficacy—a student's belief that he can achieve a specific academic goal.[13]

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11. Stereotype threat in this context refers to the negative consequences that ensue when the idea is projected onto men of color that they are incapable of succeeding in college. See Steele and Aronson (1995). Implicit bias is an unobservable structure in the mind of an individual (for example, an association in memory) that drives behavior in an unconscious manner. See De Houwer (2019).
12. While ACDV was contextualized and Success Mentors were prioritized to share identities with the students, support staff members were not provided with training on stereotype threat, implicit bias, or the culturally responsive programming. The absence of training may have contributed to recruitment and implementation challenges discussed in detail in Chapter 2.
13. Bandura (1977).

- Increase help-seeking behaviors—the decision to seek help from others to improve understanding or performance when one is struggling.[14]
- Foster positive adult relationships through which students accept the support offered by advisors, counselors, and coaches.[15]
- Provide a sense of belonging—fostering identification with the MSSI program and the college community and eliminating feelings of isolation.[16]
- Create a sense of community through scheduled gatherings and other key events to help students develop relationships with each other and with the MSSI staff.[17]

MEN OF COLOR COLLEGE ACHIEVEMENT EVALUATION

Research on programming for male students of color has proliferated in the last 15 years, yet the bulk of this work has provided rich qualitative information with few quantitative studies.[18] The Men of Color College Achievement (MoCCA) evaluation is a mixed-methods evaluation of CCBC's MSSI program. The evaluation aims to provide causal evidence about the effectiveness of one program operating across three campuses of a large community college using administrative data as well as qualitative information about program implementation and student perspectives.

The target population for the evaluation was students who self-identified as a male of color and were required to take CCBC's ACDV course. Table 1.2 shows student characteristics for the MSSI evaluation sample. The sample is largely comprised of younger students (close to 84 percent were under age 24) while a little more than 16 percent were age 25 and over, with the average age being 21. This was expected: The ACDV course is typically required for newly matriculating students only, as CCBC has found that transfer students and students returning to college likely have already taken the course or a similar one. Most of the sample (83 percent) self-identified as Black and slightly more than 8 percent self-identified as Hispanic. Most students (about 84 percent) were born in the United States, and slightly more than 30 percent were first-generation college students.

14. Wilmer and Levant (2011); Karabenick (2003); Nelson-Le Gall (1985).
15. Nutt (2003).
16. Strayhorn (2012).
17. Brooms (2018b).
18. Huerta et al. (2021); Harris III et al. (2017); Harper (2014); Harper and Harris (2012); Lee and Ransom (2011).

TABLE 1.2 Baseline Characteristics of the MoCCA Study Sample

Characteristic	Full Sample	Program Group	Control Group	P-Value
Demographics				
Male (%)	100.0	100.0	100.0	
Age[a] (%)				0.703
18 and under	41.3	42.9	39.6	
19 to 24	42.3	39.2	45.5	
25 and over	16.4	17.9	14.8	
Average age (years)	21.6	21.7	21.4	0.596
Race and ethnicity[a] (%)				0.064
American Indian or Alaskan Native	0.3	0.3	0.3	
Asian or Pacific Islander	3.8	4.8	2.8	
Black, non-Hispanic	83.0	81.2	84.9	
Hispanic	8.5	9.3	7.8	
Multiracial	2.8	3.1	2.6	
White	0.0	0.0	0.0	
Other	1.5	1.3	1.6	
Birthplace[a] (%)				0.183
United States	84.2	80.3	88.0	
Africa	7.9	10.3	5.6	
Caribbean	1.5	1.9	1.0	
South or Central America	1.8	1.9	1.7	
Other	4.7	5.6	3.8	
Residence[a,b] (%)				0.181
Baltimore City	26.7	27.2	26.3	
Baltimore County	65.1	62.4	67.7	
English is primary household language (%)	72.0	65.2	78.8	0.001
Married (%)	5.2	6.8	3.6	0.114
Number of children[a] (%)				0.064
0	89.6	89.6	89.7	
1	3.7	1.9	5.5	
2	2.9	3.7	2.2	
3 or more	3.8	4.9	2.7	

(continued)

TABLE 1.2 (continued)

Characteristic	Full Sample	Program Group	Control Group	P-Value
Nontraditional student[c]	34.4	37.7	31.1	0.117
Education				
Highest grade completed[a] (%)				0.835
10th grade or lower	3.5	3.0	4.0	
11th grade	2.4	2.5	2.3	
12th grade	94.1	94.5	93.7	
First in immediate family to attend college (%)	31.1	32.1	30.1	0.621
Sample size	514	304	210	

SOURCE: MDRC calculations from Baseline Information Form (BIF).

NOTES: [a]Distributions may not add to 100 percent because of rounding.
[b]Because Baltimore City is not part of Baltimore County, these two categories are mutually exclusive.
[c]Nontraditional students are defined as those who were 24 or older, worked 31 or more hours per week, had children, or did not have a high school diploma at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics. Students are considered to be missing data in the nontraditional category if they were missing data on two or more of these variables and have no other nontraditional characteristic; however, since less than 1 percent of the study sample were missing data, this percentage is not listed in the table.
The last column shows the p-value from a chi-square test or t-test of balance between the characteristics of the program group and the control group. The groups are unbalanced on several baseline characteristics as indicated by p-values less than 0.05. All regressions include these characteristics as an adjustment for the imbalance. See the full set of baseline characteristics in Appendix Table A.1.

RESEARCH QUESTIONS AND DATA SOURCES

The evaluation consists of four complementary components: (1) a randomized controlled trial to estimate the effects of MSSI on student academic progress, (2) implementation research that focused on how the program was put into effect, fidelity to the design, service contrast, and service use by students, (3) qualitative research to obtain a deeper understanding of the student perspective and context, and (4) cost analyses. The primary research questions were divided into confirmatory and exploratory questions. Confirmatory questions are sharply focused research questions regarding the overall effectiveness of a program.[19] Exploratory questions were used to provide context, to explain the confirmatory findings, and to generate hypotheses for future testing.

Confirmatory Research Questions:

- **Intervention and implementation fidelity.** Did MSSI operate as college programmers intended? Did students participate in MSSI services at expected levels?

19. Schochet (2008).

- **Intervention contrast.** As implemented, did MSSI's program features represent a substantially different experience from the status quo?

- **Impact.** What were the impacts of the programs on short-term outcomes, such as persistence and GPA, and on longer-term outcomes, such as progress to graduation and degree completion or transfer?

- **Costs.** What were the costs of operating MSSI? Was MSSI more cost effective than the status quo?

Exploratory Research Questions:

- **Service usage.** Did program and control group students use campus supports and services differently? Did program and control students experience the helpfulness of services staff differently? How and why did students use campus services?

- **Student context.** Did the backgrounds and life experiences of the students reflect the factors identified in the research literature as inhibiting college completion among men of color?

- **Social support networks.** Who were the members of the students' social support networks? How did these reported networks differ in size and content? How did these connections support academic self-efficacy and positive relationships?

Data Sources

This report is based on five sources of data:

- **Student background data at baseline.** Before random assignment, students completed a baseline information form that contained questions about demographics and other background information such as their educational aspirations. Collectively, these data were used to describe the study sample, to assess whether the characteristics of the program group members (those eligible to receive MSSI services) and the control group members (those eligible to receive all other services available to CCBC students) were similar at the outset of the study, and to define subgroups of interest.

- **Administrative records.** Measures of academic outcomes were derived from college transcripts provided to MDRC. CCBC also provided limited data on use of some student services, such as academic advising, career services, tutoring, and student life. Finally, information on transfer and completion were obtained from the National Student Clearinghouse.

- **Program data.** MIS data collected by Success Mentors provided information about student participation in mentoring meetings and the recommended student support services referrals such as tutoring, and leadership activities. These data were used to assess whether the

program was implemented as designed as well as to indicate the level of engagement (or "dosage") program group members experienced. Data from Success Mentors and the MSSI program leadership on how they spent their time and a delineation of resources acquired to provide services were used in the cost analysis.

- **Qualitative data.** These data consist of semi-structured interviews with program staff, ACDV-MSSI instructors, Success Mentors, and selected administrators, as well as classroom observations by the research team, to understand how the program was implemented in practice. There is also a student voices component consisting of interviews with students over six semesters of the evaluation period from 2019 to fall 2021. These interviews provided qualitative data on both the academic and nonacademic factors that male students of color considered to be influential in their decisions about and perceptions of college, as how they view their racial, ethnic, and gender identities may play a role in their attitudes and behaviors toward college.

- **Student survey.** The student survey provided data about use of campus services (such as the frequency of participation in mentoring, tutoring, and advising services) and information about student support networks for both program group and control group members.

TECHNICAL ASSISTANCE AND PROGRAM DEVELOPMENT

MDRC provided technical assistance to CCBC leadership and the MSSI program staff before the evaluation (summer 2018 and fall 2018) and throughout much of the evaluation period (2019 through spring 2022).[20] This technical assistance was geared to: (1) help MDRC and CCBC administrators and staff understand the historical implementation of ACDV and MSSI operations, (2) develop measures of fidelity of implementation, (3) develop measures of the treatment contrast, and (4) prepare the program for study implementation. More specifically, MDRC's technical assistance and program development consisted of the following activities:

- **Developing a deeper understanding of the current ACDV and MSSI models and broader college context.** MDRC worked with college leadership and staff to verify a joint understanding of the activities shown in Table 1.1 and to learn whether any similar activities were available to the larger student body. Part of the work was to understand actual program operation as well as to learn about any implementation failures (which could consist of activities not occurring at all or not occurring in the intended manner). This work helped the college more clearly articulate its model.

- **Generating recommendations for a more integrated model.** Based on the above reconnaissance and the research team's knowledge of the research literature, the team recommended integrating CCBC's two separate program models (a men's ACDV course and a separate MSSI

20. Technical assistance is the process of providing targeted support to an organization with a development need or problem.

program) back into one program as it existed in 2014. This resulted in a special section of ACDV for MSSI, with Success Mentors connected to students through the course.

- **Collaborating with CCBC to implement the recommendations.** MDRC held briefings with college leadership to discuss implementation of the integrated model and to provide formative feedback. MDRC recommended modifications or adaptations that would better align the program components with best practices described in the literature.

- **Identifying fidelity measures.** Implementation fidelity refers to the degree to which offered program services adhere to services as planned or as designed.[21] MDRC worked with CCBC to establish benchmarks for service delivery for each program component (including minimum levels of service delivery deemed to be necessary for receipt of a service) and identified sources of data to measure delivery. These metrics were then measured and reported back to administrators each study semester to foster improvement.

- **Preparing for study implementation.** MDRC secured buy-in for the study from affected college staff and provided training for the random assignment process. In addition, MDRC provided CCBC with technical assistance for student outreach and recruitment to scale up to the desired program size for the study, including behavioral messaging strategies aimed at increasing participation rates in the study (that is, among all eligible students). Lastly, MDRC assisted with plans for hiring new staff (making recommendations for staffing levels based on estimated caseloads and reviewing job descriptions), training, and developing procedures or processes necessary to accommodate study intake and the service of a larger number of program group members.

As a result of implementation challenges (described in Chapter 2) and the COVID-19 pandemic (which was officially declared in March 2020), the technical assistance and program development activities were extended to include additional help with moving programming to a virtual environment (such as providing tools for tracking student needs and for mentor follow-up when the program became fully virtual) and with addressing difficulties with student recruitment. To maintain separation between the technical assistance and the evaluation, different MDRC team members were involved in each activity. See Box 1.2 for more information on the evaluation team.

TIMING OF THE STUDY AND THE COVID-19 PANDEMIC

The evaluation period spanned 2019 through spring 2022, which resulted in some students in the sample receiving services during the pre-pandemic period and others receiving services during the pandemic. Specifically, the study sample is divided between those who experienced the program in person (204 students or about 40 percent of the sample) and those who experienced the program remotely during the pandemic (310 students or about 60 percent of the sample).

21. Nelson et al. (2012); Weiss, Bloom, and Brock (2014).

BOX 1.2 Engaging in Culturally Responsive and Equitable Evaluation Practices

The evaluation approach for the MSSI study reflected intentional efforts to include culturally responsive and equitable evaluation practices, such as having a diverse MDRC research team and including the perspectives of those affected by the study—the student participants and the MSSI administrative staff members.

Researcher positionality. Despite widely held views about the objectivity of scientific inquiry, studies show that research and scientific practices embody, reveal, and reflect the cultural values and belief systems of the individuals engaged in the research.* Given this, it is important to acknowledge researchers' "positionality"—their personal connections with a place, their identity and sense of self, and their relationships with other people—in order to understand how those factors, like other research instruments, might influence the work itself.†

The MDRC research leadership team for the MSSI study is composed of four Black women. The larger research team—operations researchers, qualitative researchers, data analysts, and programmers—is mostly female, including Asian and White women as well as Black, Latino, and White men. The researchers have a range of experiences working with the study's target population (male students of color), and personally identify with this group of students in different ways. For example, some team members have Black male family members, which informs their understanding of and interest in the study's population. Most of the team members come from families with multiple generations born in the United States. Most graduated from four-year colleges and universities, and a few, like a subset of the study population, are first-generation college graduates. Most of the team members also have research experience working with community colleges but did not attend two-year institutions.

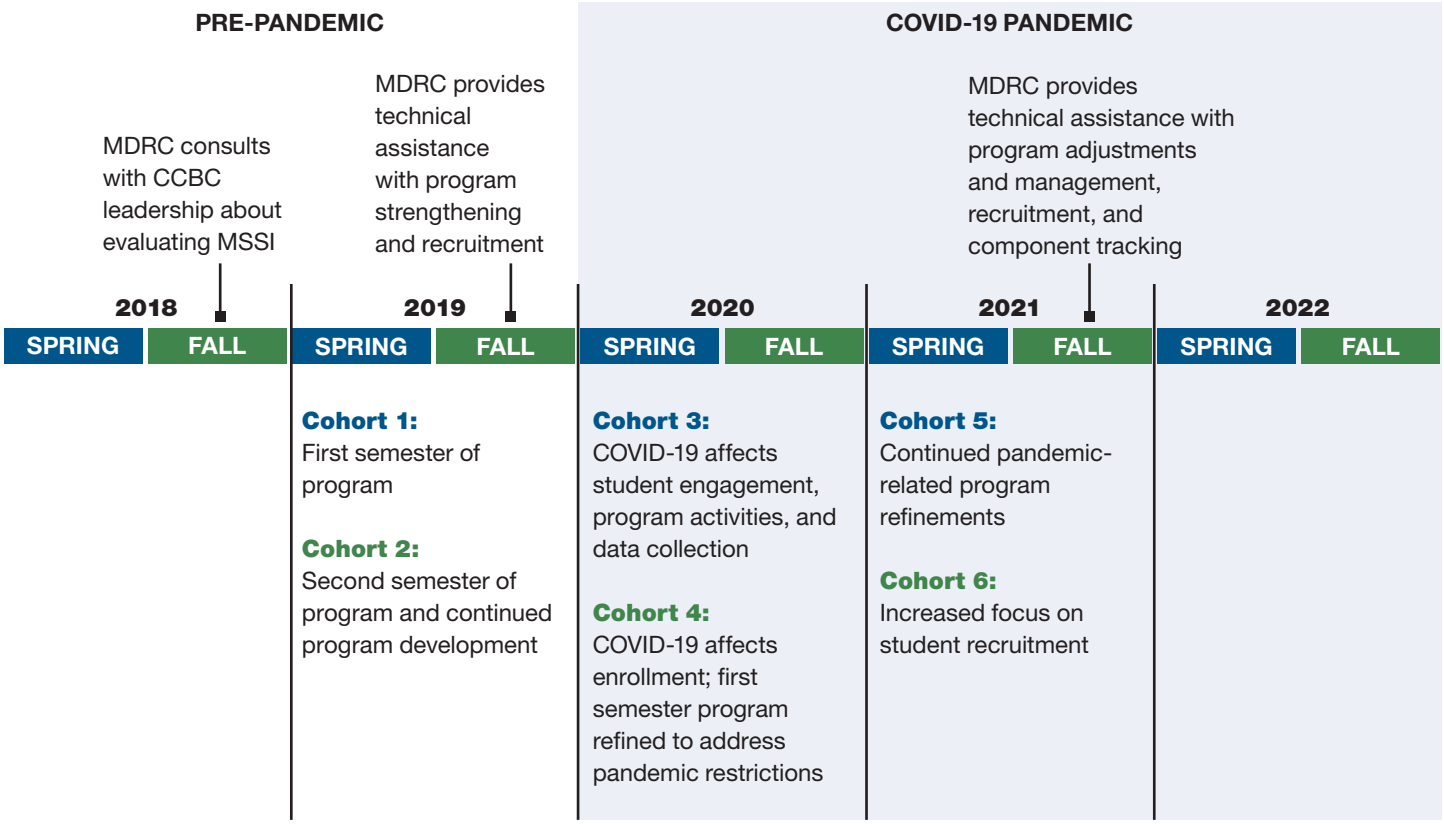
Community engagement. Given some of the differences and similarities between the researchers and the study's target group, the team looked for ways to include the perspectives of participating students and administrative staff in the evaluation. In addition to the interviews and focus groups described in Chapter 1, an advisory review group was assembled to provide feedback throughout the writing process of this report. The group was composed of three students (two students randomly assigned to the program group and one student randomly assigned to the control group), two former CCBC administrators, and two current CCBC administrators. They offered feedback on the content of the report and the interpretation of the findings.

NOTES: *For example, see Medin, Douglas L., and Megan Bang. 2014. *Who's Asking? Native Science, Western Science, and Science Education*. Cambridge, MA: MIT Press.

†Lacy, Marvette. 2017. "Just Tell Me What I Need to Know: Reflexivity and Positionality Statements." *Medium* (blog), December; Roberts, Steven O., Carmelle Bareket-Shavit, Forrest A. Dollins, Peter D. Goldie, and Elizabeth Mortenson. 2020. "Racial Inequality in Psychological Research: Trends of the Past and Recommendations for the Future." *Perspectives on Psychological Science* 15, 6: 1295–1309; Jacobson, Danielle, and Nida Mustafa. 2019. "Social Identity Map: A Reflexivity Tool for Practicing Explicit Positionality in Critical Qualitative Research." *International Journal of Qualitative Methods* 18: 1-12.

As a result, while results for the full sample are reported, some analyses divide the sample into pre-pandemic and pandemic groupings. These analyses are exploratory in accordance with the pre-registration analysis plan.[22] Figure 1.1 displays the timeline of the evaluation and recruitment of the student sample.

FIGURE 1.1 MoCCA Implementation Timeline



ORGANIZATION OF THE REMAINDER OF THIS REPORT

Chapter 2 presents an in-depth analysis of the implementation of program components. Chapter 3 uses qualitative data from student interviews and focus groups to present the student perspective

22. Tipton and Olsen (2022). The MoCCA Project analysis plan is pre-registered (ID# 1785.1v2) with the Registry of Efficacy and Effectiveness Studies (REES), developed by the Society for Research on Educational Effectiveness. The goal of REES is to increase transparency for studies seeking to draw causal conclusions within the education research and evaluation community (Anderson, Spybrook, and Maynard, 2019). The study was initially registered on August 21, 2019, and revised on August 3, 2020, prior to any quantitative data analyses.

on the context of the MSSI program and the influence of students' social support networks on their college-going goals. Chapter 4 assesses the MSSI program's effects on students' academic outcomes, including enrollment, credit accumulation, degree receipt, and transfers to four-year institutions. It also presents the cost analysis. Chapter 5 concludes the report with a summary and implications of the findings along with considerations for future research. Appendix A provides details on the study methodology and additional supplemental information.

2

Implementation

This chapter describes the implementation of the Male Student Success Initiative (MSSI) at Community College of Baltimore County (CCBC). It addresses three key research questions in the Men of Color College Achievement (MoCCA) evaluation of MSSI.

- **Intervention and implementation fidelity:** Did MSSI operate as college programmers intended? Did students participate in MSSI services at expected levels?
- **Intervention contrast:** As implemented, did MSSI's program features represent a substantially different experience from the status quo?
- **Service usage:** Did program group and control group students use campus supports and services differently? Did program group and control group students experience the helpfulness of services staff differently? How and why did students use campus services?

After a summary of findings, the chapter details overarching changes in staffing that affected all program operations and describes how MSSI was implemented, including whether the program features were different from what students could receive without the program. The chapter also presents an analysis of how students used the campus supports and services. In addition, the external context within which MSSI operated is described, including how the COVID-19 pandemic and increased attention on racial inequality during the study period may have influenced implementation.

SUMMARY OF FINDINGS

- MSSI went through many changes after the study launched in the spring 2019 semester. Some of these changes were the result of adaptations to COVID-19 pandemic realities, while others were new ideas intended to strengthen the program.

- Ultimately, MSSI did not operate as intended. Students did not participate in MSSI services at expected levels; difficulty engaging students in various program activities was particularly noticeable after the start of the pandemic.

- Despite not operating as intended, MSSI delivered a substantially different experience for students in the program group compared with students in the control group. It is worth noting that due to the COVID-19 pandemic, all CCBC students had a college experience that was different from what they would have experienced prior to 2020.

IMPLEMENTATION CONTEXT

The implementation of MSSI during the study period did not occur in a vacuum. Factors external to the college and conditions within the college influenced MSSI program implementation. In this section the external context is described first, followed by the internal context. See Table 2.1 for an overview of the implementation context.

External Context

Global and national circumstances influenced CCBC operations, and therefore the context within which MSSI operated. For example, the COVID-19 pandemic changed the college's approach to teaching and supporting students, which in turn resulted in changes to the way MSSI could be implemented. In spring 2020, classes were largely changed to a virtual format, and hybrid courses began in fall 2020. Furthermore, the killings of Ahmaud Arbery, Breonna Taylor, and George Floyd—the latest in a long history of unarmed Black people's deaths at the hands of police and private citizens—spurred widespread protests in 2020 urging an end to unjust law enforcement tactics and the continued marginalization of people of color throughout the United States.

Internal Context

During the program evaluation period, CCBC experienced a decline in student enrollment, as shown in Table 2.1. This decline resulted in fewer students being eligible for the program than in the past. Like many other community colleges, CCBC's student population demographics did not match the demographic composition of faculty and administrators, also shown in Table 2.1. Finally, the renewed focus on racial injustice prompted CCBC to announce strategic institutional changes to foster a climate of equity and inclusion on campus (see Box 2.1 for more details). For example, in interviews, MSSI administrators noted that the program was discussed at every meeting of senior college leadership. The college also officially allocated funds for the program; until mid-2020 the program had relied on piecemeal support from different offices' budgets and

TABLE 2.1 Summary of External and CCBC Implementation Context

CCBC Contextual Factors	2018 (Pre-Study Period) Fall	2019 Spring	2019 Fall	2020 Spring	2020 Fall	2021 Spring	2021 Fall	Overall
COVID-19 pandemic status	Pre-pandemic	Pre-pandemic	Pre-pandemic	Pandemic	Pandemic	Pandemic	Pandemic	---
CCBC modality	In-person	In-person	In-person	Virtual	Hybrid	Hybrid	Hybrid	---
Police shootings of unarmed Black men	6	6	5	10	7	4	4	42
Credit enrollment	19,034	---	17,894	---	17,598	---	16,215	---
First-time credit students with developmental education needs (%)	67	---	70	---	60	---	---	---
Credit students who are first-generation college students (%)	36	---	36	---	35	---	---	---
Nonwhite credit enrollment (%)	60	---	61	---	63	---	63	---
Nonwhite full-time faculty (%)	27	---	27	---	28	---	---	---
Nonwhite full-time administrative and professional staff (%)	32	---	32	---	34	---	---	---

SOURCE: Police shootings of unarmed Black men are author's calculations using the fatal shootings database compiled by The Washington Post (https://github.com/washingtonpost/data-police-shootings). CCBC contextual factors are from the 2022 Community College of Baltimore County Fact Book (https://www.ccbcmd.edu/~/media/CCBC/About%20CCBC/Administrative%20Offices/PRE/ccbc_factbook.ashx) and interviews with CCBC campus leadership.

NOTE: Dashes (--) indicate that data are not available or that the measure is not applicable.

BOX 2.1 CCBC's Approach to Diversity, Equity, and Inclusion

Before 2020 there were multiple groups at CCBC addressing some aspects of diversity, equity, and inclusion (DEI) practices and programs, but they were not connected to a college-wide agenda. (For example, since 2005, CCBC has hosted the Culturally Responsive Teaching and Training program (formerly Culturally Responsive Teaching and Learning) to train faculty and others in how to examine DEI assumptions and develop skills to work effectively with all people.) Topics of culture, race, bias, microaggression, stereotype threat, and social capital were frequently addressed, but while there was a stated institutional commitment to DEI, CCBC staff members noted it wasn't backed up with a plan, funding, and resources. One staff member said, "You'd have all these little boutique programs. But even they aren't totally connected."

The renewed focus on racial injustices in 2020, however, prompted CCBC to announce strategic institutional changes to foster a climate of equity and inclusion on campus. One staff member interviewed said, "The connection really wasn't made until now that all of this needs to be connected in order to realize any change at the college." DEI was described as a framework by one college leader to be "a powerful shift for the institution. College staff members interviewed by the MDRC research team remarked on some key efforts pursued at CCBC in 2020:

- A DEI framework was incorporated across all strategic initiatives that would be a point of assessment during institutional accreditation and self-study moving forward.
- The President's Advisory Council on Diversity, Equity, and Inclusion was established. Participants, including students, faculty, and administration staff, self-nominated to join the council or were nominated by their peers; participation was not based on appointments and multiple students were involved. The council conducted a racial climate survey of staff and students.
- The CCBC administration conducted an audit of institutional policies to rethink the way "we've always done things" and to identify policies that do not advance the college's future mission.
- Disaggregated data on key performance indicators of student success by demographics such as race, gender, and age were shared with the entire college community by the CCBC Office of Planning, Research, and Evaluation .

While race has been a primary focus of the DEI movement at CCBC to date, the college is also considering socioeconomic status, age, and other characteristics in its equity agenda.

MDRC evaluation funds.[1] Other internal contextual factors included staffing and leadership turnover as well as continual changes in the recruitment strategy for the study.

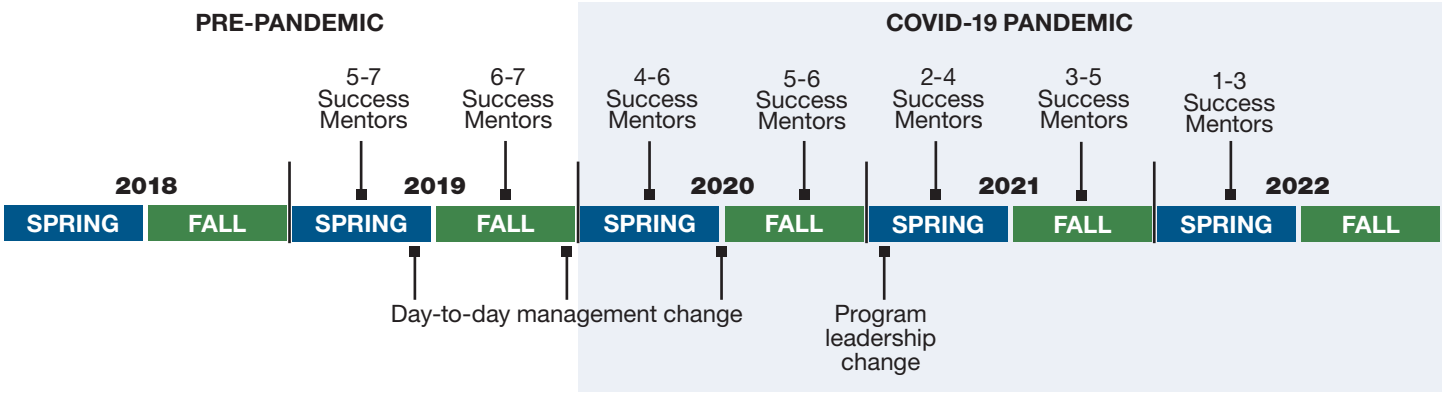
1. This funding approach aligns with the findings of a 2016 study of programs included in the American Association of Community College minority male initiative database. The authors identified that programs like MSSI had multiple funding streams. Common sources of funding included campus funds, private and corporate gifts, college foundation, and student fees, along with federal and local sources. See Keflezighi, Sebahari, and Wood (2016).

Staffing and Leadership Changes

Staffing was one element of the implementation context that cut across all MSSI program components and could have influenced program implementation and intervention fidelity (that is, whether the program operated as intended).[2] Two aspects of staffing were relevant here: the full-time or part-time status of staff positions and staff turnover within those positions.

From the beginning of the study period, MSSI experienced turnover at all levels, including positions for day-to-day management, program leadership, and Success Mentors. In 2019, day-to-day program responsibilities and oversight of the Success Mentors were led by a faculty liaison—a full-time faculty member with six hours (the equivalent of two classes) allocated specifically for MSSI. Throughout 2019, there was significant turnover in this position; two individuals left the job within the year, leaving the position periodically vacant. To stabilize MSSI's management and to address challenges arising from the limited capacity of the previous faculty liaisons, a full-time staff member was hired in summer 2020. Furthermore, in late 2020 to early 2021, MSSI leadership transitioned from a dean to a vice president, elevating the program's standing among the broader college leadership. Figure 2.1 shows the timing of leadership changes over the evaluation period.

Figure 2.1 Changes in MSSI Leadership and Staffing Over the Evaluation Period



There was also turnover among the Success Mentors during the evaluation period, particularly from 2020 to 2021. Each staffing change resulted in students having to be assigned to a different Success Mentor, sometimes multiple times during the course of the program (this was mentioned in interviews with several MSSI students and staff members). One contributing factor to staffing instability may have been that the Success Mentor position was part time; Success Mentors were expected to work only 19.5 hours per week. As a result, some may have left for full-time employment, for example, or found that the hours allotted were insufficient to get

2. Weiss, Bloom, and Brock (2014).

the work done. However, many mentors interviewed said that they regularly worked more than their allotted hours.

Recruitment Challenges

At study launch, MSSI leadership and the study team set a recruitment goal of 615 students over four semesters.[3] Due to lower-than-expected CCBC enrollment levels (in part because of the pandemic disruption), MSSI study recruitment was extended through 2021 and the eligibility criteria were expanded to increase the pool of CCBC students who could participate. Each semester, MSSI staff adjusted the recruitment approach to improve results. Ultimately, though, these efforts were not enough to achieve the study recruitment goals.

In interviews, staff members identified several factors contributing to the recruitment challenges. First, many noted the limited capacity of staff members to do the recruiting work because it was only one of several tasks they were responsible for and they were only part-time employees with limited availability, or they were stretched thin because there were not enough people with recruitment responsibilities. Second, staff members said recruitment activities consisted largely of "cold calling" individuals from a list of CCBC applicants that was generated by CCBC's research and evaluation office based on program eligibility criteria. The recruiters reached out by phone, email, or text message to individuals who were not previously aware of the program or who were not expecting to hear from someone about the program. Third, staff members described challenges with that list of students, which was based on applications to the college and not actual enrollments. Staff members said they also often found that some individuals who were interested in participating in the MSSI study had financial or academic holds that prevented them from doing so, and there was no process for recruiters to help them address these issues. Finally, there was not a common, systematic recruitment approach across each of CCBC's three campuses; recruitment took slightly different forms at each one. In 2021, a more systematic approach was developed involving the CCBC academic advisors. All new CCBC students were told about the MSSI program study, and those who were interested were scheduled for a study intake appointment. This supplemented the outreach to existing students on the list described earlier.

INTERVENTION AND IMPLEMENTATION FIDELITY

Even before the pandemic, the five MSSI program components outlined in Chapter 1 were implemented inconsistently. Overall, student participation fell short of expectations. The pandemic exacerbated the challenges of program implementation but also compelled MSSI staff to develop new ways of connecting with students. The components evolved over time, and not all of them were implemented as planned.

3. The original study plan was to recruit students into the program for four semesters from spring 2019 through fall 2020.

Yet an analysis of qualitative data, including interviews with staff members, focus groups with program group and control group students, classroom observations, and observations of other MSSI activities, shows that the intervention features represented a different experience for program group students compared with the standard student experience. For example, the Academic Development 101: Transitioning to College class (ACDV) is required for most first-year students and is designed to help them become familiar with the college experience and with study habits that support student success. However, program group students in MSSI took a culturally contextualized section of the class (ACDV-MSSI) and their instructors were all men of color. Other MSSI features that were offered to program group students compared with control group students included mentoring. student support services, and group meetings. (See Appendix Table B.1 for more details on the key differences between the supports offered to students in MSSI and the usual college services.)

Academic Skills Enrichment

There was little change in the content of the ACDV-MSSI course during the study period, although the pandemic required the course to shift from an in-person format to an all-virtual format for two and a half semesters. While all MSSI instructors followed a syllabus that was common across all ACDV sections, the MSSI sections had additional, culturally contextualized features. One of those features was planned discussions, in which instructors led conversations about topics that students could relate to. In interviews, some students mentioned their personal connection to the course's discussion topics and how ACDV-MSSI instructors encouraged them to reflect on how these topics related to their own lives. For example, students in the ACDV-MSSI sections watched video clips relating to issues of race and society and discussed what it felt like to be a man of color. During multiple ACDV-MSSI sections observed by the research team over the study period, the instructors engaged students in explicit conversations about what it meant to be a Black man in the Baltimore region.

Other examples of culturally contextualized content were discussions based on current events affecting individuals of color. For example, during a class in October 2019, an instructor asked the students if they knew who had died that day. The instructor proceeded to talk about U.S. Representative Elijah Cummings and asked the class to think about how his passing "affects us as men of color" and how it affected Maryland.[4] In spring 2020, in the wake of the killings of Ahmaud Arbery and Breonna Taylor, an instructor told the researchers he dedicated at least one class to how Black males must navigate contemporary society and what they need to do to be successful. Students in this class watched the Netflix series *When They See Us*, about the Central Park Five—five Black and Latino teenagers who were wrongfully accused and convicted of attacking a White woman in Central Park. During the fall 2020 semester, an instructor noted to researchers that frequent topics included the presidential election, the murder of George Floyd,

4. Elijah Cummings was a politician and civil rights activist who represented Maryland in the U.S. House of Representatives from 1996 to 2019. See https://www.nytimes.com/2019/10/17/us/politics/elijah-cummings-death-illness.html.

and other murders of men and women of color. Students told the research team how ACDV-MSSI course discussions encouraged them to understand the impact that these killings had on their societal perspectives as well as on the 2020 presidential election and the subsequent insurrection at the U.S. Capitol in early 2021.

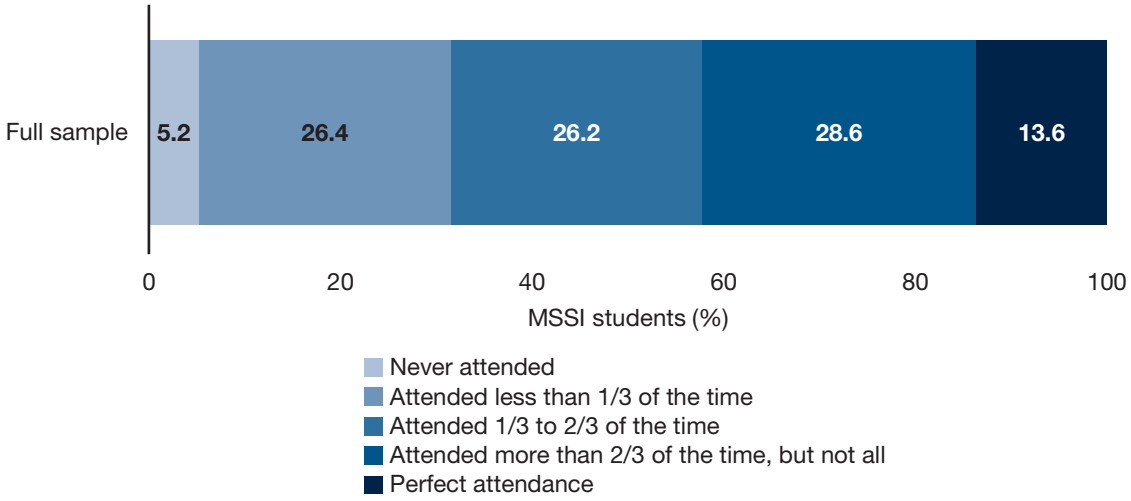
The course also provided a space to talk about the COVID-19 pandemic starting in the spring 2020 semester. These conversations centered on the effects of the pandemic on the health and the financial and educational well-being of students' families and communities; concerns about these issues caused enough anxiety for some students to consider dropping out of college altogether. For some students, the ACDV-MSSI course was considered a space to express the many emotions they were experiencing while still trying to stay motivated to do well academically. As one student noted, this was his "stress-relieving class," where he felt he and his peers were more comfortable sharing their concerns and frustrations—a place where they could find refuge as well as reassurances from their instructor and from each other.

Another key aspect of the ACDV-MSSI course that students commonly mentioned was its focus on helping them develop their academic goals, their career interests, and their awareness of campus services. During the initial semesters of the study, students taking this course said it gave them the chance to familiarize themselves with their new campus surroundings and to meet other men of color on campus. Students appreciated class discussions in which they could reflect on the similarities and differences in their educational journeys. For some, discussing these topics helped them get more comfortable in class and sparked further engagement and feedback. That, said one student, "gives us a better understanding of each other, basically.… Where we come from, what we want to do in the future, how [MSSI] can help us now." Others said they learned about resources on campus they would not otherwise have sought out on their own, such as the tutorial centers and various student organizations. A few students noted that class discussions also gave them a chance to share how they were doing in their other courses—for example, if they were struggling, if they enjoyed learning from certain instructors—another unique aspect of ACDV-MSSI they said was not provided in other classes they were taking. In general, students in the program understood that the primary goals of the ACDV-MSSI course were to give them an opportunity to learn about themselves as men of color, to learn about the additional supports that the college has available, and to meet others like them—both students and instructors—with whom they could bond and share information as they all went through the college experience together.

The data presented in Figure 2.2 show the level of attendance of MSSI program students in the ACDV-MSSI course based on records maintained by the program staff.[5] Overall, about 14 percent of enrolled students attended all ACDV-MSSI class meetings and about 42 percent of enrolled students attended most (two thirds or more) ACDV-MSSI class meetings.

5. These data are from a management information system maintained by the program staff. They do not represent administrative records on ACDV course enrollment from transcripts, which are reported in Chapter 4 in this report. See Appendix Table B.2 for additional information on attendance for the full sample.

FIGURE 2.2 ACDV-MSSI First Semester Attendance, Full Sample



SOURCE: Attendance data are from CCBC's program data.

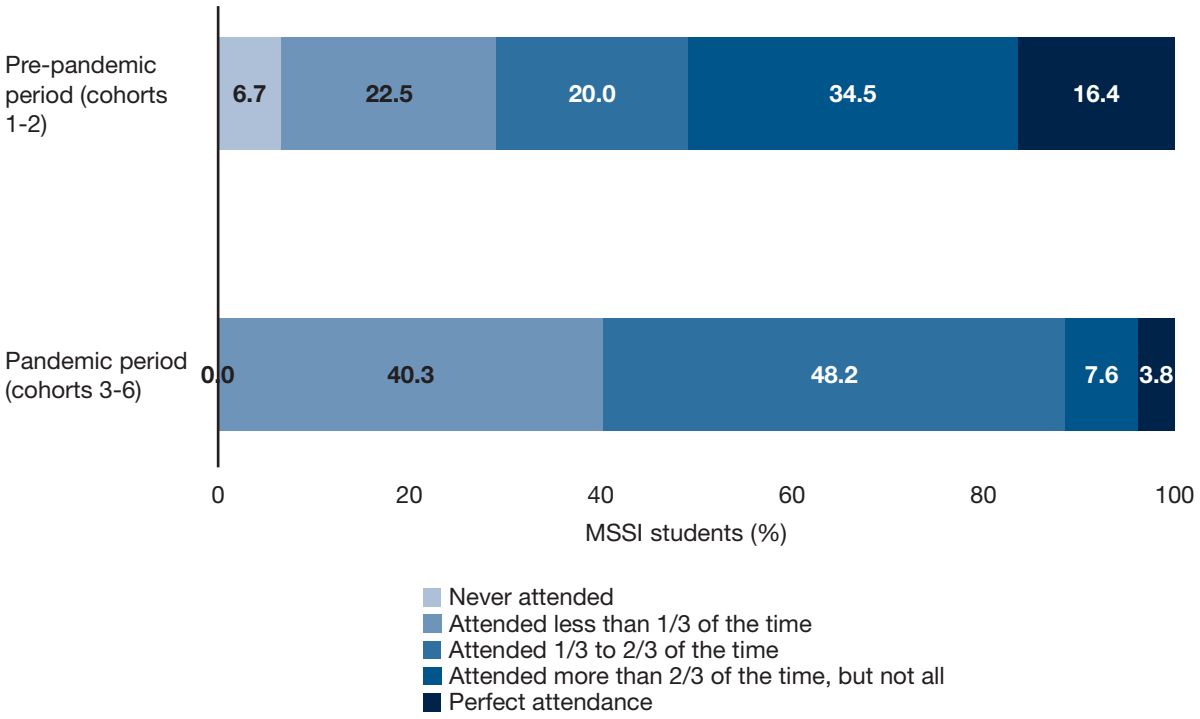
NOTE: Sample represents 304 program group students. These data are reported through an MIS system, and the reported ACDV attendance is generally lower than the transcript enrollment. The data may underestimate attendance, which was not tracked as closely as Success Mentor visits.

As shown in Figure 2.3, the percentage of students who attended all ACDV-MSSI classes was about 16 percent for the pre-pandemic sample and nearly 4 percent for the pandemic sample.[6] While there was some portion of MSSI enrollees who never attended their ACDV-MSSI class, these students were limited to the pre-pandemic sample. All enrolled students in the pandemic sample attended at least one ACDV-MSSI class meeting, which might suggest that the transition to classes being held virtually was helpful to some portion of students. Nevertheless, the data suggest that students disengaged from ACDV-MSSI over the course of the semester, which is consistent with the observations that MSSI and ACDV staff made about student engagement. First-generation students had lower levels of attendance in ACDV-MSSI as compared with students who were not first generation.[7]

To meet study recruitment challenges described above, MSSI staff sought to expand program eligibility by opening the study to students who signed up for new culturally contextualized introductory-level courses.[8] This expanded program eligibility to include students who would have previously been considered ineligible if they had already taken ACDV. As of the fall 2021

6. See Appendix Tables B.3 and B.4 for more information.
7. Not shown in the figure. See Appendix Tables B.5 and B.6. The research team did not test the significance of the difference between the values of the groups.
8. Examples include introductory English and Criminal Justice courses that include culturally relevant materials and draw on lived experiences of the instructors and students.

FIGURE 2.3 ACDV-MSSI First Semester Attendance, by Pandemic Period



SOURCE: Attendance data are from CCBC's program data.

NOTES: Sample represents 92 program group students during the pre-pandemic period and 212 program group students during the pandemic period. These data are reported through an MIS system, and the reported ACDV attendance is generally lower than the transcript enrollment. The data may underestimate attendance, which was not tracked as closely as Success Mentor visits.

semester, however, none of these new course sections had run due to low enrollment. Even though those classes did not run, students who signed up to take one of them remained enrolled in MSSI. Box 2.2 describes the academic skills enrichment available to the control group.

Success Mentors

In the fall 2018 semester, the MSSI team of Success Mentors was expanded to accommodate the influx of program participants expected from the implementation of the MoCCA study for the spring 2019 semester. The Success Mentors were based on multiple campuses in the CCBC system. Until the fall 2021 semester, Success Mentors were exclusively Black men, but they came from diverse professional backgrounds and age groups and brought a variety of attributes to the program. For example, some Success Mentors had backgrounds in fields such as social work or education, while some younger team members worked in a student services office or had other non-teaching positions at CCBC. The lack of racial diversity of the MSSI staff, especially the

BOX 2.2 Academic Skills Enrichment for Control Group Students

In the MSSI study, the first key differentiator affecting the program group students' experience compared with control group students was the culturally contextualized ACDV-MSSI course; it was offered exclusively to male students of color in the program group and was taught by male instructors of color who were associated with MSSI. Early in the study period, one CCBC English teacher was offering a culturally contextualized course for male students of color that was open to program group students and control group students as well as students not enrolled in the MSSI study. That course, which was not officially affiliated with MSSI during the study period, stopped being offered after the professor left the institution. There were no other culturally contextualized courses for male students of color offered during the study period.

In contrast to the MSSI course, the population of students who attended the standard ACDV course were diverse in terms of race, gender, and ethnicity. In the six courses researchers observed, instructors lectured or provided presentations on study skills, test-taking skills, academic advising, transfer resources, degree planning, time management, goal setting, financial literacy, and successful behaviors. The classes were taught in a variety of styles including instructor-led discussions, instructor-led lectures, demonstrations of a skill, multimedia, and independent work. Observers noted varying levels of student engagement with the instructors and the coursework across the classes. For more information about the differences between ACDV-MSSI and standard ACDV, see Appendix Table B.1.

Success Mentors, was criticized by one mid-level college administer, who said, "All of the MSSI folks—they appear to be African American. So, it's like, when you say 'male students of color,' how come there aren't any Hispanic or other minority groups represented? It seems like it's a program for all African American males."

Students were not strategically assigned to Success Mentors according to academic interests or needs, and some mentors had more mentees than others. And because some Success Mentors left their positions during the course of the study period, some students were reassigned to different mentors over time. (One student noted that after his Success Mentor left, he was never assigned another one.) In 2021, the student assignment process was reorganized by academic major. For example, all students with majors associated with science, technology, engineering, and mathematics were assigned to the same Success Mentor. This change in assignment approach was intended to foster relationships among students with similar academic interests.

As a result of staff turnover, having fewer Success Mentors in the program than planned, and enrolling fewer students into MSSI than expected, Success Mentors' actual caseloads did not align with the planned caseloads, as shown in Table 2.2.

Figure 2.4 presents data on the frequency of meetings between students in MSSI and their Success Mentors. (See also Appendix Tables B.2 through B.4.) Overall, more than one-third of students (about 37 percent) met with their Success Mentors at least three times in the first semester after random assignment, and about 21 percent did so in the second semester; these students achieved

TABLE 2.2 Success Mentor Caseloads and Hours

Factors	2018 (Pre-Study Period) Fall	2019 Spring	2019 Fall	2020 Spring	2020 Fall	2021 Spring	2021 Fall	Overall
Planned number of Success Mentors	Unknown	4	7	7	7	--	--	7
Actual lowest number of Success Mentors	3	5	6	4	5	2	3	4
Actual range of Success Mentors[a]	Unknown	5-7	6-7	4-6	5-6	2-4	3-5	2-7
Planned number of students to be served	Unknown	24	117	130	130	--	--	247
Actual number of program group students enrolled[b]	242	22	69	81	73	90	137	249
Planned caseload per Success Mentor	Unknown	6	17	19	19	--	--	35
Actual caseload per Success Mentor[c]	81	4	12	20	15	45	46	62
Estimated Success Mentor hours	Unknown	1,320	652	720	618	540	--	3,850
Estimated hours per student	Unknown	60	9	9	8	6	--	15

SOURCE: MDRC calculations using planning materials developed at the start of the evaluation, qualitative data on implementation, time logs collected from administrators and Success Mentors spring 2019 through fall 2021, and administrative data on student enrollment. Actual number of Success Mentors represents the maximum number each semester.

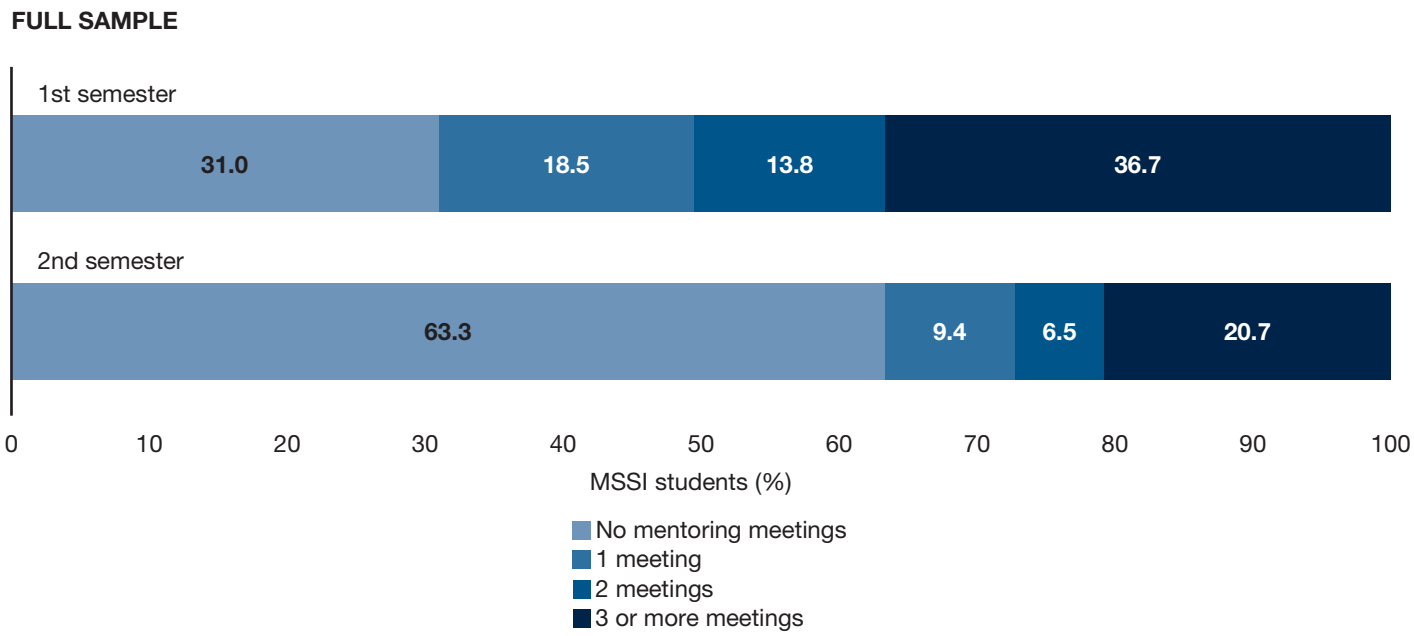
NOTES: Dashes (--) indicate that the measure is not applicable for a particular time frame.

[a]There was Success Mentor turnover during the term, resulting in the ranges shown in this row and Figure 2.1. For example, there were seven Success Mentors at the start of spring 2019, but two resigned during the semester.

[b]Among the 304 program group students recruited for the study, only 249 registered for courses (enrolled) during the study period.

[c]Because timing of Success Mentor resignations varied within semester and across semesters, the caseload estimate is based on the lowest actual number of Success Mentors each term.

FIGURE 2.4 Frequency of Student Meetings with Success Mentor, Full Sample



SOURCE: Success Mentor meetings data received from the management information system.

NOTE: Sample represents 240 program group students during the first semester after random assignment and 97 program group students during the second semester after random assignment. Numbers may not add to 100 due to rounding.

the program goal for Success Mentors. On the flip side, overall, nearly one-third of enrolled students (31 percent) never met with their Success Mentors in their first semester, and nearly two-thirds (63 percent) never did so in the second semester, an indication of the lack of fidelity to the program model, as the formal contact between the students and their Success Mentors went down over time. First-generation students appear to have attended more mentoring appointments, compared with non-first-generation students, across both semesters. (For more about first-generation students see Appendix Tables B.5 and B.6.)

Many of the program group students who participated in focus groups with the research team confirmed that their meeting with their assigned Success Mentor was the first interaction they had with an MSSI staff member after joining the program. Many described their mentors as someone who communicated with them both in and out of class. For some students, their mentor was also the instructor in their ACDV-MSSI course, providing them extra continuity and accessible support as they learned about what they were expected to do as part of the program. One program group student, in his first semester at CCBC and in the MSSI program, said that Success Mentors were a convenient access point. "If you need something, they're there," he said. "It's not hard to get in touch with them. They make themselves available to you. They make the students like [us] their number one priority." Box 2.3 provides additional student perspectives on the MSSI program.

BOX 2.3 Student Perspectives About the MSSI Program

Students participating in focus groups and interviews during the MSSI study period generally offered positive feedback about the program. Many said the support of MSSI instructors and staff members was an important factor in their ability to adjust to the academic expectations of college. Some students described gaining confidence, feeling more comfortable on campus, and building connections with other students as a result of their participation in the program. Multiple students noted the sense of brotherhood and the family-like environment the program provided, as well as the access to additional resources, such as financial support to pay for books or being able to borrow a laptop from the college that helped them complete course requirements.

Students also identified several areas where they saw opportunities for improvement. First, they wanted more MSSI course options for students who completed the ACDV-MSSI course and who were beyond their first semester of college. They felt this would allow students to continue together to take culturally contextualized classes. Others said they would like to see more inclusive program content with topics that extended beyond traditional ideas about what men of color experience—for example, by including issues of importance to the LGBTQ community and by addressing physical and mental disabilities that might impede students' academic success. A couple of students also said they would like to see MSSI instructors receive more professional training in how to lead deeper discussions about the intersection of race, ethnicity, and other characteristics of identity such as nationality and sexual orientation.

A large majority of program group students interviewed identified their Success Mentors as their primary contact at CCBC after the COVID-19 pandemic prompted the college to shut down in-person classes and campus services. Some students mentioned that their mentors would regularly send texts or quick video calls to check in with them and to remind them to join the monthly MSSI meetings that continued virtually during the pandemic. One student who joined MSSI during the pandemic said the best thing about the program was having his mentor there to keep in touch with him and help him adjust to the virtual and online environment that now defined his college experience. (Box 2.4 describes the control group students' access to and experiences with mentoring.)

BOX 2.4 Mentoring Opportunities for Control Group Students

Success Mentors were another key differentiator affecting the experiences of program group students compared with control group students, who were not assigned a Success Mentor. CCBC does not offer mentoring to all students but does offer mentoring for a few special populations such as student athletes and scholarship recipients. MSSI is the only program on campus that offers mentoring for male students of color by male staff members of color.

(continued)

BOX 2.4 (continued)

In focus groups, control group students mentioned other professors and tutors who served as informal mentors at CCBC, helping them get the resources they needed to meet their academic or personal goals. Students noted that they had difficulty accessing student success services both in person and virtually. Sometimes they were bounced from one office to another—for example, from international student services to financial aid to advising—and did not have a point person to help them.

Throughout the study period, there were instances when control group students reached out to MSSI Success Mentors for help. One Success Mentor said he met with non-MSSI students, some of whom may have been control group students, "two to three times a week…. They know this is a men-of- color program, so they come up here for any various question." On the other hand, some program group students did not have regular contact with their Success Mentors or weren't aware they had been assigned to one. Said one MSSI student, "To be honest, I'm not sure if I have a mentor. I mean, I'm pretty sure I do have a mentor, but I'm not sure who that person is."

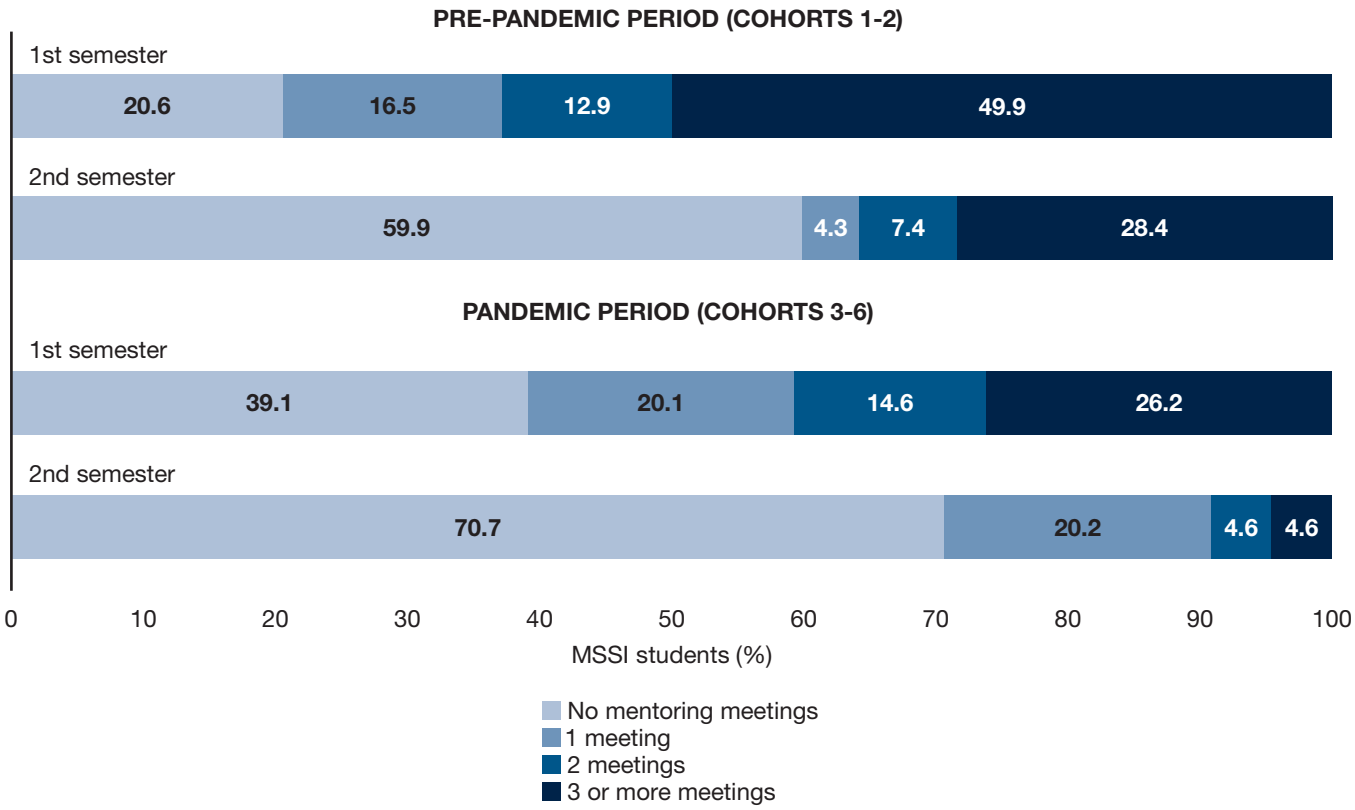
Some Success Mentors taught ACDV-MSSI classes as well as mainstream ACDV classes, which may have contributed to crossovers—students in the control group receiving some services offered to the program group.

Mentoring session attendance appeared to decline for the pandemic student sample compared with the pre-pandemic sample, as shown in Figure 2.5. This is not surprising, given the challenges during the pandemic of participating in any of the college activities that staff members or students mentioned in interviews. Students had many competing demands on their time and had to prioritize their time outside of the classroom. Many students worked—sometimes multiple jobs and full-time hours—while attending school.

Success Mentors said they used multiple methods to reach out to students on their caseloads; text messages, emails, and phone calls were particularly prevalent after the onset of the pandemic. Mentoring session appointments covered a range of topics, with academic topics topping the list for program group students, as shown in Figure 2.6; work-life balance was the second-most reported topic. Appendix Tables B.3 and B.4 provide a breakdown of topics covered for the pre-pandemic and pandemic samples; these data suggest changes in the nature of the conversations over time.

A separate analysis (not shown) examined the relationship between the number of mentoring appointments attended and ACDV-MSSI course attendance. There does not appear to be a relationship between high levels of attendance in one and high attendance in the other.

FIGURE 2.5 Frequency of Success Mentor Meetings, by Pandemic Period



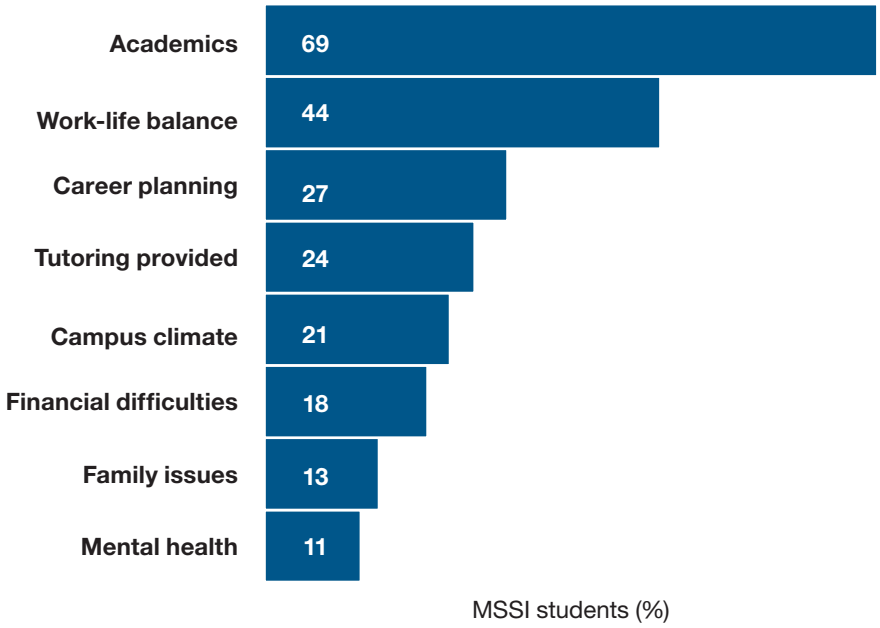
SOURCE: Success Mentor meeting data received from the management information system.

NOTE: Sample represents 82 first semester program group students and 57 second semester program group students during the pre-pandemic period as well as 158 first semester program group students and 40 second semester program group students during the pandemic period. Numbers may not add to 100 due to rounding.

Student Support Services

The student support services component of MSSI was largely intended to refer MSSI students to individuals on campus who were familiar with the program and trained specifically to provide MSSI students with the support they needed. Several program group students described how their Success Mentors guided them to the on-campus resources they needed to help them file a Free Application for Federal Student Aid (FAFSA), for example, or to identify and enroll in the courses that fit their education plans. Many students said they were grateful for the vouchers they received with help from their Success Mentors to cover at least some of their course book costs. Success Mentors also described referring students to these and other services, including tutoring, financial aid, and CCBC Success Navigators on campus. Getting connected to the Success Navigators gave MSSI students easier access to supports such as bus passes, mental health therapy, home internet access, and food resources. According to a MSSI staff member, when one

FIGURE 2.6. Topics Discussed in Meetings with Success Mentors, First Semester of MSSI, Full Sample



SOURCE: Success Mentor meetings data received from the management information system.

NOTE: Sample represents 240 program group students during the first semester after random assignment. Data are for students who met with a Success Mentor, not all enrolled students. Categories are not mutually exclusive.

student's family received an eviction notice, MSSI arranged for the student to get some funds from CCBC's Success Navigator program to prevent the eviction.

The ways in which MSSI staff supported the referral process were noteworthy. Several Success Mentors described their process for warmly connecting students to other offices on campus, whether in-person or through a personal email or phone call. Pre-pandemic, this included walking students to specific offices and supporting their engagement there. With the shift to remote services during the pandemic, one mentor described how he could best mimic that warm connection virtually. "I will share my screen [on Zoom] and show them how to navigate that through Zoom on the actual [college web] site. If I don't have that available, what I would do is create a detailed email or even … a Word document that breaks down systematically how to look that information up, where to go to and how to set everything up." (For support services available to students in the control group, see Box 2.5.).

BOX 2.5 Student Support Services for Control Group Students

In interviews with the research team, students assigned to the control group spoke highly and often about many of the student support resources on campus, including the writing center, academic advising, and support from professors. Comments about tutoring were a mixed bag, however. While some students found that tutors were not knowledgeable about the material they needed help with, others reported having a positive experience with tutors. Those students said that they were able to build meaningful relationships with their tutors and got targeted support that allowed them to see positive changes in their academic work and feel more confident in their identities as students. Some students reported having negative experiences with the financial aid office and said that they had to take time away from school as a result.

Community and Brotherhood

Because MSSI was balancing multiple priorities as it expanded to accommodate the MoCCA study during the spring 2019 semester, the program offered relatively few community-building activities to bring MSSI students together. The number of activities grew over the study period, however. For example, in the fall 2019 semester, the program hosted a cookout where MSSI students and staff members could mingle informally. Nonetheless, in interviews with the research team in fall 2019, MSSI students were calling for more ways to build community, such as arranging group video gaming sessions or basketball games. Later, in lieu of in-person activities that were paused during the pandemic, the MSSI program staff members developed another way to keep the community connected: A new, weekly video conference meeting for all MSSI students called MSSI Cares was introduced to build engagement and connectedness among the students and Success Mentors. According to MSSI management, an average of 13 students attended each MSSI Cares gathering. However, some students interviewed noted their preference for in-person interactions, and MSSI staff members acknowledged the challenges associated with building a community in a virtual environment.

Higher education literature has affirmed the concepts of community and brotherhood and their relationship to a student's sense of belonging and to positive peer relationships.[9] The heterogeneity of the students in the MSSI program group, however, reflected a number of intersecting, self-reported identity characteristics (described in Table 1.2 in Chapter 1), such as race, ethnicity, and birthplace, as well as others not reported, such as sexual orientation and disability status. In this context, some individuals interviewed over the course of the MSSI study suggested that the program could do more to fully achieve its goal of connectedness. For example, one MSSI program staff member and another CCBC staff member said that the program could be more mindful of student identity and the language used in the classroom and throughout other MSSI activities. A student in the program group noted his experiences with not feeling fully connected

9. See Brooms (2018a) and Jackson (2012), for example, and Strayhorn (2008).

with MSSI's concept of brotherhood, which he felt was strongly tied to more normative aspects of the straight Black male experience. "As a gay Black man, this feels like a club for the regular Black man, period," he said. "It may not be that way, [but] it kinda feels that way." This student further explained that the program would benefit from having inclusivity training for its leaders as part of the curriculum's themes.

On the other hand, multiple MSSI program staff members reiterated the inclusive nature of the program, emphasizing that it supported all students—including those who identified with the LGBTQ community, students with disabilities, and students from many different ethnic backgrounds. One staff member said, "We're just focusing on how do we support the students, because we're not looking at them as this marginalized group that 'Oh, we have to support them.' It's like, 'No, they're just our students."

Students said their experiences in MSSI were different from other experiences at CCBC, because MSSI was primarily run and attended by men of color. Said one student, "I really appreciate this program because…it was really cool to me to form relationships with people who share my skin color…." Another student said that the group activities contributed to the sense that "it's a program for Black people and…creates a safe circle to show our experience." (Box 2.6 describes community and brotherhood opportunities for control group students.)

BOX 2.6 Community and Brotherhood Opportunities for Control Group Students

MSSI was the only program on campus dedicated specifically to supporting male students of color. But control group students in the MSSI study had access to a variety of activities and clubs that focused on various racial and ethnic groups, including program activities provided by the CCBC Office of Intercultural Affairs. The office also sponsored programming during Black History Month. Control group students reported finding community and friends in social clubs on campus, including an anime club and a club for men of color who wanted to pursue a career in teaching. Not all interviewees from the control group were involved in extracurricular clubs, however, and cited competing priorities and the pandemic as barriers to their participation. Students in the control group also spoke highly of a campus hangout spot called the Barn, which featured a student lounge, a stage, and an event space. Many students said they met at the Barn for club meetings, or just used it as a place to study. Many felt the space was inviting—a place to meet new people.

Leadership and Professional Development

As MSSI was being expanded in 2019 for the MoCCA study, few MSSI-specific leadership and professional development opportunities were offered in the beginning of the year, but opportunities grew over time. Starting in fall 2019, students were encouraged to attend monthly MSSI meetings. These were structured opportunities for students to discuss topics regarding professional

development and leadership as well as challenges students were experiencing that they could problem-solve together. Students said the meetings also provided information about developing social skills, promoting success, and identifying career opportunities, plus advice for how to do well academically and "a lot" of motivation. One student said the purpose of the meetings was to "help us continue to grow and do well." Some of the students interviewed noted they were not able to attend these meetings frequently or at all, however, because of scheduling conflicts with other classes or with work responsibilities. And not all staff members agreed with the direction of the meetings. The agendas and guest speakers were organized by MSSI staff members, for example. One Success Mentor suggested early in the study period that the meetings should be more student-led, and that students should be more involved in the development of agenda topics.

Other professional development activities included a trip to the Smithsonian National Museum of African American History and Culture in Washington, DC, and participation in the Maryland Male Students of Color Summit. A prominent program feature in past years had been tours of four-year college transfer options, particularly historically Black colleges and universities, but those visits did not take place during the study period. The onset of the pandemic eliminated planned trips or in-person activities, but meetings continued to be a venue for professional and leadership development. (Box 2.7 describes leadership opportunities available for the control group students.)

BOX 2.7 Leadership and Professional Development Opportunities for Control Group Students

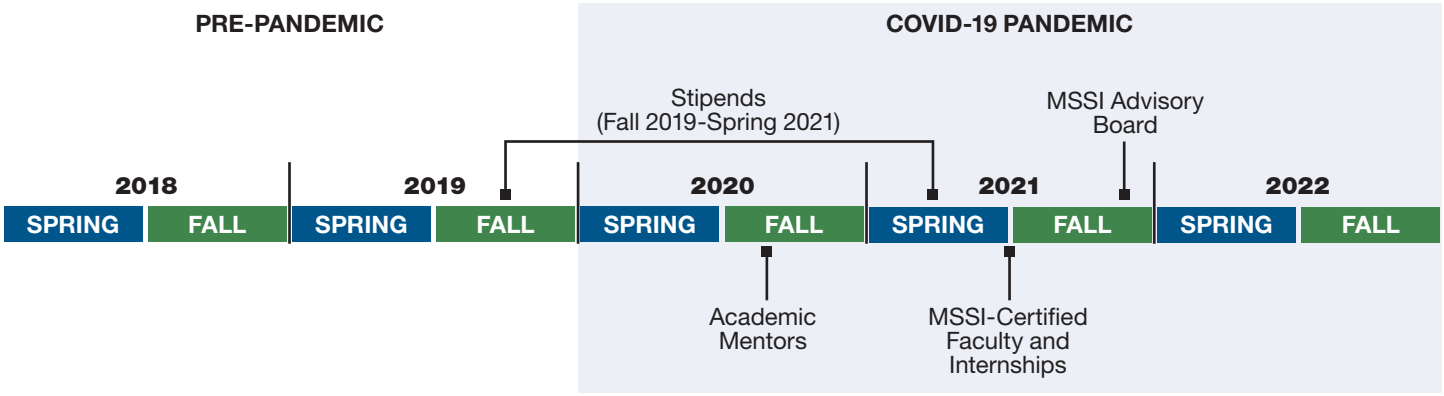
Students in the MSSI study control group had access to the standard leadership and professional development opportunities offered to all students at CCBC. They could apply to be student ambassadors for the First-Year Experience through the Office of Student Life, serve as representatives in the Student Government Association, participate in internships and work-study positions, and join clubs and organizations on campus such as athletic teams and identity groups like the Black Student Union.

Added Program Features

The MSSI program model expanded beyond its original vision (presented in Table 1.1 in Chapter 1). Staffing changes and increased campus-wide knowledge about the program spurred new ideas, most of which were implemented in 2021. (See Figure 2.7 for an overview.) The new features included:

- **Stipends.** Stipends were available to students in the program group between the fall 2019 and spring 2021 semesters. Stipends were intended to encourage more student participation in MSSI services. Students were eligible to receive $50 for each mentoring session attended, for a total of up to $150. This feature was ultimately suspended because the program staff did not

FIGURE 2.7 Added MSSI Program Features



think the stipend improved student engagement, and the MSSI program philosophy shifted away from using extrinsic rewards to motivate student participation.

- **Academic mentors.** Beginning in the fall 2020 semester, the MSSI program began making connections with faculty members across the college to serve as academic coaches and mentors to MSSI students who were identified as needing extra academic support, particularly related to writing skills.

- **MSSI-certified faculty.** In summer 2021, about 45 CCBC staff members across offices, departments, and divisions who were interested in partnering with MSSI attended a two-hour orientation to learn about the program, its goals, and best practices for teaching and supporting men of color. Participants, called "MSSI-certified faculty," were also given copies of *Teaching Men of Color in Community College: A Guidebook*.[10] During registration for spring 2022 classes, MSSI staff encouraged students to sign up for classes with MSSI-certified faculty members, some of whom also volunteered to tutor MSSI students.

- **Advisory board and internships.** An MSSI advisory board was formed in the fall 2021 semester. It included a former director of the program and other CCBC representatives as well as individuals from community businesses. Business partners included representatives from Stanley Black & Decker and Baltimore Gas and Electric. Some of the business representatives doubled as partners in a newly established internship program, which offered opportunities to MSSI students starting in 2021.

10. Wood, Harris, and White (2015).

THE EFFECT OF COVID-19 ON INTERVENTION CONTRAST

The COVID-19 pandemic also affected the study team's ability to assess the intervention contrast. Because "business-as-usual" at the college changed dramatically with the onset of the pandemic, the experiences of all students at CCBC, including those in the MoCCA study, changed significantly throughout the study period. (See Table 2.3 for additional information about MSSI program changes as a result of the pandemic.)

TABLE 2.3 MSSI Program Changes in Response to the Pandemic

MSSI Program Component	Program Changes
Academic Skills Enrichment	• In March 2020, ACDV-MSSI transitioned to an online class. Through the spring 2021 semester, ACDV-MSSI was taught virtually with students joining a Zoom or Teams conference room with their instructor at the scheduled time of their class. • In fall 2021, ACDV-MSSI returned to in-person instruction.
Success Mentors	• In March 2020, all contact between mentors and students shifted to virtual methods such as phone calls, video chats, text messages, or emails. • Some in-person contact resumed in fall 2021.
Student Support Services	• For spring and fall 2020, Success Mentors replaced the warm hand-off approach (accompanying mentees to a particular student support services office) with virtual referrals: walking students through setting up virtual appointments, navigating websites to access resources by screen-sharing during video calls, and developing resources to help students access support services.
Leadership and Professional Development	• In March 2020, the monthly MSSI meetings converted to weekly virtual meetings using Zoom conferencing. These meetings often featured an outside speaker. • Scheduled trips were not possible in 2020 and 2021.
Community and Brotherhood	• In spring 2020, MSSI Cares was launched to gather MSSI participants as a group and check in on their mental, emotional, and physical well-being. The group meetings—sometimes held monthly, weekly, or biweekly—were a platform for the students to build community as well. • Beyond an opportunity for students to bond, it serves as a space for CCBC community members to speak with the program participants. Guest speaker topics include midterm preparation, test-taking anxiety, preparing for presentations, the new online learning platform, transferring out of CCBC, and the honors program.

SOURCE: Semi-structured interviews with MSSI program staff.

Responding to shifting information about how the virus could spread, CCBC largely curtailed in-person activity and enacted different policies on instruction, grading, tuition, and student supports. In March 2020, CCBC announced a travel ban for staff members and students, cancelled all in-person classes, cancelled and postponed all major events on campus, and began preparation for remote instruction and teleworking. Classes largely remained remote through the end of the spring 2020 semester, and nearly all staff members were directed to work from home or "be at home" if they were unable to telework. During the spring 2020 semester, student support services were suspended for one week and then moved online.

Overall, most program group and control group students interviewed said that remote learning was difficult and they often struggled to engage with their courses. Some students said they initially struggled to do their schoolwork because they did not have access to reliable internet or laptops. Some students used their mobile devices for schoolwork, and noted they found it difficult to navigate Blackboard, the online classwork management system used across CCBC.

During the remainder of the study period, the college offered students tuition vouchers if they withdrew during spring 2020, offered financial aid to qualifying students, expanded students support services that were offered online, repurposed college staff to prioritize keeping students enrolled, expanded the number of courses offered remotely or partially remote, and instituted various academic forgiveness policies. For more details on CCBC policy changes, see Appendix Table B.7.

SERVICE USAGE

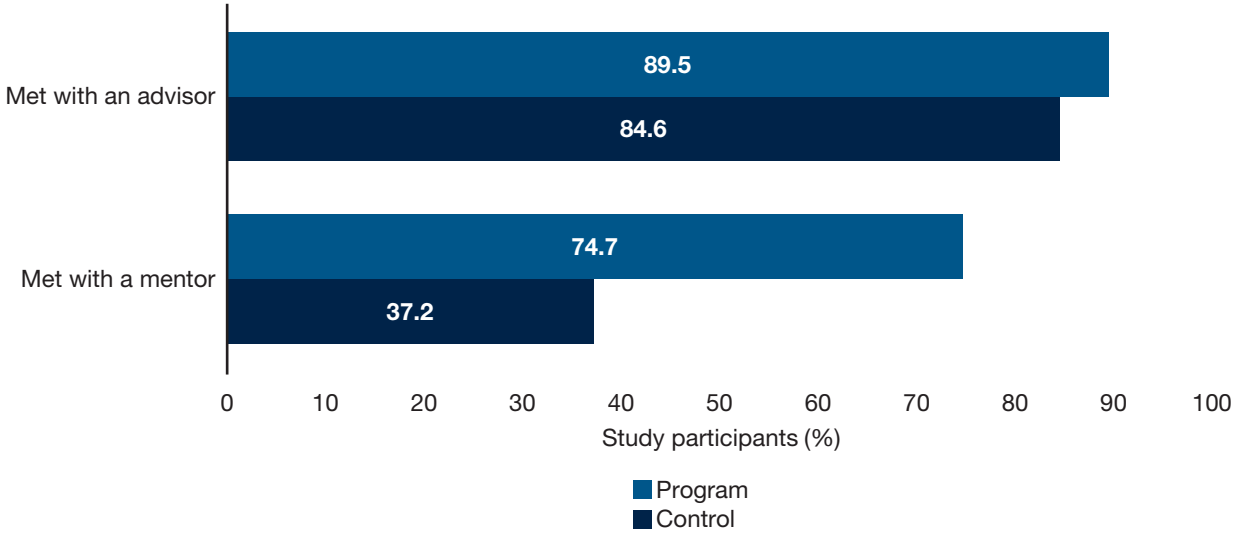
This section uses quantitative and qualitative data to present an overview of the differences in the use of campus services across the CCBC system between program group students and control group students. Descriptive quantitative data on the use of student services are based on a student survey.

Overall, a higher percentage of students in both groups reported meeting with an advisor than with a mentor, as shown in Figure 2.8. Control group survey respondents seemed to have lower levels of contact, especially with mentors, compared with self-reports from the program group survey respondents.[11]

As shown in Figure 2.9, both program group students and control group students engaged with mentors less than with advisors. Overall, engagement declined from the pre-pandemic period to the pandemic period. The change in control group students' meetings with a mentor is particularly noteworthy over time. It appears that the onset of the pandemic changed their

11. These differences were not tested for significance because of low response rates. See Appendix A for details on the study methodology. Also, since these data are based on students' self-reports, who students considered an 'advisor' or a 'mentor' was their interpretation; it could include MSSI staff or not.

FIGURE 2.8 Student Meetings with Advisors and Mentors, Full Sample



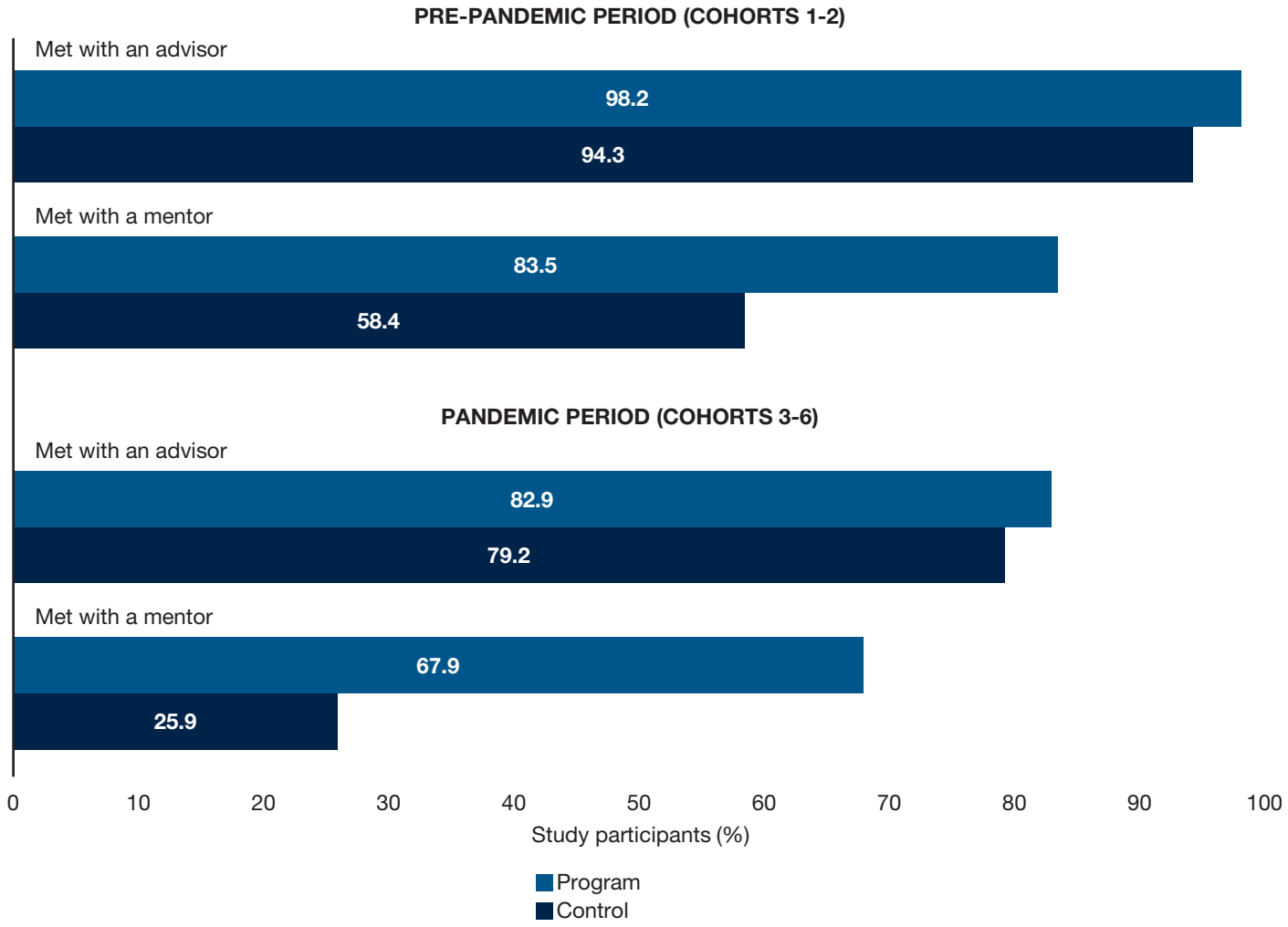
SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: Estimates represent 264 study participants (166 program group students and 98 control group students) who responded to the survey about advisor and mentor meetings that occurred during the first semester after random assignment. The overall response rate was 52 percent. See Appendix A for details on the survey methodology. Categories are not mutually exclusive. No statistical tests were performed due to low survey response rates. Data in this figure are self-reported.

use of these resources more than it did the program group's. See Appendix tables B.9 and B.11 for additional details.

Table 2.4 presents discussion topics with advisors or mentors based on the student survey. Students in both the control group and the program group reported addressing largely similar topics in those conversations, although more program group students than control group students reported conversations about personal matters with academic advisors and mentors. In addition, more program group students reported discussions about internships with advisors and mentors than control group students. See Appendix Tables B.10 and B.12 for additional details.

FIGURE 2.9 Student Meetings with Advisors and Mentors, by Pandemic Period



SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: Estimates represent 264 study participants (56 program group students and 53 control group students during the pre-pandemic period and 110 program group students and 45 control group students during the pandemic period) who responded to the survey about advisor and mentor meetings that occurred during the first semester after random assignment. No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. See Appendix A for details on the survey methodology. Categories are not mutually exclusive. Data in this table are self-reported.

TABLE 2.4 Discussion Topics with Advisors or Mentors

Activity	Program Group	Control Group
Discussion topics with advisors[a] (%)		
Academic goals	75.8	66.8
Academic progress	68.3	57.4
Course selection	68.5	75.4
Major	64.3	57.7
Requirements for graduation	32.3	35.1
Internships	16.6	9.0
Job opportunities	32.2	11.1
Career planning	31.7	28.1
College policies (transfer credit policies, probation, and drop/add policies)	37.7	25.9
College services (financial aid, tutoring, and counseling)	48.2	32.4
Personal matters	33.5	16.0
Discussion topics with mentors[a] (%)		
Academic goals	77.7	62.4
Academic progress	76.1	75.2
Course selection	57.0	50.5
Major	60.4	56.1
Requirements for graduation	31.9	25.1
Internships	20.5	13.7
Job opportunities	25.9	29.7
Career planning	36.8	35.6
College policies (transfer credit policies, probation, and drop/add policies)	39.1	21.0
College services (financial aid, tutoring, and counseling)	53.3	43.7
Personal matters	42.4	27.6
Sample size (total = 264)	166	98

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively.
Data in this table are self-reported.

[a]Distributions may not add to 100 percent because categories are not mutually exclusive.

CONCLUSION

This chapter describes CCBC's experience implementing the MSSI program from spring 2019 through the fall 2021 semester. The MSSI program represented a substantially different experience for program group students compared with students in the control group. In particular, program group students had access to a culturally contextualized ACDV course, Success Mentors, and help making connections to student services on campus. Program group students were also supported by males of color in faculty, program support, and administrative roles throughout the college. During the study period, however, MSSI did not operate as intended and students did not participate in MSSI services at expected levels. Many students did not engage in program activities, a trend that was exacerbated by the COVID-19 pandemic. Nevertheless, survey data suggest that more students in the program group had contact with mentors compared with students in the control group.

3

Student Voices

This chapter describes students' perceptions of the Community College of Baltimore County (CCBC). It addresses two key research questions about students' experiences as part of MDRC's mixed-methods evaluation of the Male Student Success Initiative (MSSI) through the Men of Color College Achievement (MoCCA) project:

- **Student context.** Did the background experiences of the students reflect the factors identified in the research literature as inhibiting college completion among men of color?

- **Social support networks.** Who were the members of the students' social support networks? How did these reported networks differ in size and content? How did these connections support academic self-efficacy and positive relationships?

SUMMARY OF FINDINGS

- Focus group and interview data confirm that although students in both the program group and the control group had a great interest in and desire to pursue higher education, many said they attended high schools that they felt did not prepare them adequately for the academic rigors of college.

- For younger students, family members were the key motivators regarding their decision to attend college. For older students, the value of a degree for increasing their earning power was the greatest motivator. All students considered college to be the primary factor for eventually achieving career and financial stability.

- The primary reasons students cited for attending CCBC were the college's convenient locations and the affordability of classes, which helped them to better manage the competing priorities of school, work, and home life. Most said attending CCBC offered a way for them to save money so they could eventually transfer to a four-year university, as well as a way stay close to home and work while they took college courses.

- In general, students in both the control group and the program group said their experiences at CCBC were positive. A majority of students remarked on the support they got from most of the college faculty and administrative staff to succeed academically and to find additional resources on campus such as tutoring, advising, and student-led organizations.

- Students noted the lack of racial diversity among the faculty they interacted with at CCBC. Despite this, most students reported having more positive racial interactions at CCBC with faculty and staff compared with their more negative experiences in high school.

- Students' social support networks comprised slightly more than two people, on average, with about 60 percent of the networks made up of male supporters. Family members and friends were the most common relationship types for both program group students and control group students. Program group students were more likely to list teaching assistants and mentors in their support networks compared with control group students.

The remainder of this chapter presents the students' perceptions and experiences of being in college, followed by a discussion of social support networks and the effect of COVID-19 on the student experience.

OVERVIEW

Colleges across the country continue to invest time and resources that focus on programs aimed at supporting male students of color.[1] These investments are guided by institutional leaders' efforts to better understand the personal and social identities of this population of students and to create responsive programs and institutional practices that support them. To do this effectively, colleges are increasingly focused on giving male students of color more opportunities to share insights about their educational goals as well as feedback on their college experiences: how well their college is supporting them, how connected they feel to the larger campus community, and what changes to academic and social programming they feel are needed to help them succeed. In other words, colleges are making more concerted efforts to include student voices in institutional decisions about how to improve student success.

A qualitative student voices study was included in MDRC's evaluation of MSSI to understand how the backgrounds and experiences of male students of color at CCBC influenced the way they approached college, and how their interactions with others on campus shaped their experiences throughout the course of the study. Such an examination of students' experiences over time can help illuminate key factors that played a role in their success before and during college. Inquiry through this qualitative approach also allows for an exploration of whether the lived

1. Brooms (2018a, 2018b); Gardenhire and Cerna (2016).

experiences of the individuals under study yield similarities based on a deeper understanding and description of their shared experiences.[2]

A total of 23 student focus groups and 26 individual student interviews were conducted; 11 students participated in more than one interview or focus group over the course of the study. (See Appendix A for more detail on the methodology used to conduct the student voices research.) Students from both the program group and the control group were included in the student voices study, though the findings listed below provide a summary of the experiences that students from both groups reported during interviews or in focus groups.

Pre-College Experiences

Most students who participated in focus groups during their first semester at CCBC said parents or other family members were their primary motivators to attend college. One student said, "My mom motivated me, told me there's always something greater. It's always better to have more education that will help you later on in life." Some students said their parents encouraged them to start at CCBC and weigh their options while exploring different areas of study and career paths. Students also said family members and family friends were their principal role models. Some said older siblings and cousins helped them navigate the process of selecting transferable core classes and preparing for college financially. One interviewee said his father's friend was his career mentor, noting, "I look up to him because he's a company owner and inspires me to keep going to do the same." Other students cited support from their high school counselors in shaping their college goals and preparing them for the college registration process. Said one student, "My mother didn't go to college and my father didn't go to college. So I didn't really know how to go about all this college stuff. I really depended on asking my [high school] counselor, because I had a bunch of questions."

For some of the older students, taking time off after high school allowed them to work, save money, and find a career path they wanted to pursue. For them, the decision to eventually pursue higher education was prompted by their understanding that earning a degree or a career certificate would be necessary to advance in their desired career fields. While the need to earn money was a primary motivator to start working full time after high school for some students, there was also a shared understanding among most focus group participants that getting a degree would eventually help them to sustain a better lifestyle and improve their living conditions. One student explained, "Getting a better education will help me get a better job and possibly move out of the current location that I'm in. I just want to, you know, get out of there, so basically my primary motivator [for college] is getting out of my current situation."

When asked to describe what it was to be "successful" as a male of color in society, the most common responses from focus group participants included being highly educated, providing for their families, sustaining financial stability, and becoming role models for boys and young men

2. Creswell (2013).

in their communities. Many students said that attending college and working hard at becoming good students were important early milestones in their effort to succeed.

Perceptions of Attending CCBC

Many students described being able to balance their education and career goals with their responsibilities outside of college life during their first year at CCBC. Most students mentioned that having CCBC campuses that were near to where they lived helped them stay connected to their work and home lives. This was especially true for students who worked full time or more than half-time at one or two jobs. A few of these students said that attending CCBC provided the flexibility they needed to take courses that aligned with their work schedules. One student also noted the benefits of CCBC having multiple campuses to select from in his community. This was helpful, he said, during a time when he had to make changes to his living arrangements that required him to move from one neighborhood to another that was farther from the CCBC campus he initially attended.

Other students said the decision to enroll at CCBC was based primarily on the affordability of the classes as well as on the financial help they received. While many students said their ultimate goal was to transfer to a four-year university, some understood the value of CCBC's lower enrollment costs compared with what it would cost to start out at a university. In a focus group, one student explained, "I was, like, fifty-fifty on that because CCBC and community colleges in general are helpful because it doesn't cost that much. It won't put you in that much debt." Another student chimed in, saying, "And it helps you get all your core classes faster, compared to a four-year college where you have to [sometimes] wait to get your core classes out of the way [before] your major [because of the cost]."

Students' initial perceptions of CCBC as a learning institution were also largely favorable, with many noting the pronounced difference between the academic expectations at CCBC and what they experienced in high school. While some said they attended high schools that fostered a culture of going to college and offered college prep courses, others said their schools neither prepared them adequately for the academic rigors of college nor helped them develop the mentality they needed to take ownership of their education goals. Some students described how CCBC set a better tone for them to work harder, study more regularly, and engage more with instructors, college staff, and peers to acquire the information they needed to be successful. While a few mentioned that this work ethic was instilled in them by family members and other influential people in their lives prior to starting at CCBC, others said they first heard it addressed during CCBC orientation or during the first few days in their courses, when instructors laid out clearer expectations for being academically successful in their syllabi or during introductory lectures.

Students mentioned how CCBC's instructors established the understanding that to be successful at the college level, students would need to balance personal responsibility with proactively seeking help when needed. One student noted this was not an idea he had heard before, saying, "It isn't like high school. It's different. It is not coddling. You're here to learn how to be independent. I feel like all the [CCBC] professors I got give me that space to be responsible." Another

student elaborated: "In high school it's way easier to not study for an exam and then do well, or wake up that morning, five minutes before the test, to start looking through notes. That's really not possible if you want to do well in college. It's just hours and hours of studying. High school really doesn't teach you that college work ethic."

Perceptions of Racial Climate at CCBC

Although some students said that CCBC's student population was more diverse than it was in their high schools, there were also comments that CCBC had not hired enough faculty of color or faculty that represented the students' cultural backgrounds. A couple of students noted the disparities between the high number of students of color attending CCBC and the lack of faculty diversity, with one saying, "There aren't enough Black or Latino instructors here, so there's no diversity at the power level, just with us students." The other student added, "I mean, you've got to look at the dynamics of this school. Most of the teachers, in my opinion, don't look like me. They've got a couple of sprinkles of African American [teachers], but not a whole lot." Other students did say that student services staff were generally younger and more culturally diverse than the CCBC faculty members, and that many campus staffers were former CCBC students and graduates.

Despite mentioning the faculty's lack of diversity, several students spoke positively about their interactions with faculty members, including white faculty members, in stark contrast with what they had experienced in high school. Some students recalled racially charged incidents with their high school teachers and other staff, who they said treated them unfairly because of their race. These students said they had been very aware of the unequal treatment they had received in high school compared with their white peers. That was not the case at CCBC. Most students said their instructors were competent and supported them both in and out of class. When asked, students generally stated that differences in gender, race, or ethnicity did not affect the way they participated in class or how they approached instructors to ask questions, share concerns, or request guidance about course content. Some also said that their instructors would sometimes suspend scheduled lectures to conduct classroom discussions about prominent social events occurring at the time, such as the growing Black Lives Matter demonstrations in the summer of 2020 and the U.S. Capitol insurrection in early 2021. These classroom discussions were not only reported by students in the program group, who mentioned regularly talking about race as part of their MSSI course, but also by students in the control group, who confirmed that similar discussions were being led by instructors in their English, humanities, and social science courses.

A few students explained that interactions with instructors, staff, and students with backgrounds different from their own made them feel more at ease at CCBC, compared with the less frequent and at times negative cross-cultural interactions they had experienced in high school. One student said, "[CCBC is] very unique because it has multiple races on a bigger scale than I was used to. I actually feel much more comfortable around them. Like, I can have a conversation with them." Some students said they also learned from interactions with students who shared the same racial characteristics but were different in terms of ethnicity or nationality. African American students, in particular, said they were learning new things about themselves and their

history from their interactions with students from African countries, who sometimes expressed different cultural understandings or viewpoints about what it felt like "being black" or "growing up with darker skin than others around us."

SOCIAL SUPPORT NETWORKS

The exploration of social support networks can provide unique insights into how students' connections with one another relate to their academic experiences.[3] For example, in a dense social network, where most students report seeking advice and academic support from one another, students are more likely to achieve academically.[4] While this is an underexplored area in higher education, research suggests that even randomly determined relationships such as one's roommate or lab partner can affect one's academic outcomes.[5]

To examine such relational data in this study, the research team surveyed students about the composition of their social networks, how those networks were used, and what kind of support they provided (for example, emotional support, financial assistance). As shown in Table 3.1, students in both the program group and the control group reported having slightly more than two discussion partners, on average—people the students most often talked to about their experiences as a college student. In both groups, nearly 9 in 10 students identified at least one discussion partner who was male, but males represented only slightly more than half of all discussion partners. The table shows the distribution of discussion partner relationships, with family members and friends being the largest relationship types for both program group students and control group students. Notably, program group students were more likely than control groups students to list teaching assistants and mentors or other coaches as discussion partners in their networks.[6]

THE EFFECT OF COVID-19 ON THE STUDENT EXPERIENCE

Perceptions of how the COVID-19 pandemic affected students' experiences varied greatly among MSSI students. Those who participated in focus groups after the start of the pandemic frequently noted their difficulties and displeasure with virtual learning. These students cited numerous instances of struggling to stay focused on learning the course content amid the distractions of being at home, where other family members were also attending online classes or working within close quarters. Some students missed having the face-to-face, dynamic interactions they usually got in class. Others cited a lack of consistent communication with their professors, whom they would

3. Kadushin (2004).
4. Gest et al. (2011); Hamm, Lambert, Agger, and Farmer (2013).
5. Grunspan, Wiggins, and Goodreau (2014); Sacerdote (2001).
6. For differences in social networks by pre-pandemic and pandemic period, see Appendix Table C.1. For differences by first-generation status, see Appendix Table C.2.

TABLE 3.1 Self-Reported Social Networks

Outcome	Program Group	Control Group
Average number of discussion partners	2.8	2.2
At least one discussion partner is male (%)	88.6	84.7
Proportion of discussion partners who are male (%)	61.0	57.7
At least one discussion partner is: (%)		
Spouse or romantic partner	9.8	9.1
Other family member or relative	51.3	53.5
Classmate	27.2	24.2
Professor	41.9	30.0
Teaching assistant	4.2	NR
Athletic coach	1.9	4.3
Mentor or other coach	32.1	9.5
Academic advisor	17.1	17.3
Pastor	4.3	4.5
Friend	48.1	47.7
Other relationship	1.7	13.0
Proportion of discussion partners who are: (%)		
Spouse or romantic partner	4.2	3.3
Other family member or relative	31.5	32.3
Classmate	18.4	13.6
Professor	20.2	17.1
Teaching assistant	1.6	NR
Athletic coach	1.2	1.2
Mentor or other coach	14.2	4.3
Academic advisor	9.4	7.4
Pastor	1.7	0.4
Friend	25.8	29.4
Other relationship	0.6	4.2
Sample size (total = 264)	166	98

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: Respondents could identify up to five discussion partners on the survey. No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program group and control group were 54 percent and 48 percent, respectively.

NR = Not reported due to a small number of responses.

normally try to approach either before or right after class to receive immediate help, as opposed to waiting to see if and when they would respond to emails. A few students mentioned having technology issues, including weak internet connections, challenges navigating the Blackboard intranet interface to send and receive coursework information, lack of access to a computer at home when they needed to share their devices with other family members. Virtual learning, which prevented the in-person classroom interactions with and support from instructors and other students that they were used to, also exacerbated students' struggles to grasp higher level math or science course work.

Still, some students noted that virtual courses also provided them with some conveniences, such as not having to commute to campus, saving money by eating at home, being able to work independently and at their own pace, and having instructors who posted pre-recorded lectures that could be viewed at a more convenient time.

Many students said the ongoing pandemic, the switch to virtual classes, and campus closures influenced their decisions to withdraw from classes or delay enrollment or registration for upcoming semesters.

In addition to difficulties with virtual learning, some students also mentioned how the pandemic had created challenges outside of college, especially for individuals who were unemployed or were living in a crowded household. These students said they had a hard time separating their home, work, and school lives. Some students, however, said the pandemic lockdown allowed them to spend more quality time with family members, while others said they were able to focus more on personal goals because they were not socializing as much. Some students said the lockdown helped them think about next steps in their pursuit of a college education, while others said it clarified their decision to focus on working and earning money.

SUCCESSFUL TRANSFER EXPERIENCES

During the last set of student interviews and focus groups for the study, the research team spoke with three students who had successfully transferred from CCBC to four-year universities. Two of them transferred to predominantly White institutions (PWIs), and the third student transferred to a historically Black university (HBCU). All three students were in the MSSI program while at CCBC. When discussing their initial experiences at their universities compared with CCBC, all three said the biggest difference was that the campuses and the classes were much larger at their new schools. At times this made it difficult for them to have regular interactions with their new professors and peers. This was especially true for the two students who transferred to the PWIs, which were still operating virtually because of the ongoing pandemic. All three students cited a larger focus at the universities on becoming more career-minded. One student added that there were more opportunities for internships and major-specific program activities at his university than what he had been exposed to at CCBC.

The two students attending the PWIs noted that although they knew of student-based campus organizations that focused on African American students, neither of them could say if their school had any academic-based programs that targeted men of color. The student that transferred to an HBCU was able to identify various student organizations at his new school that focused on the intersections of nationality (for example, African American) and ancestral heritage (such as Caribbean or West African), but he could not identify an academic program specifically aimed at men of color.

Even after transferring to their universities, all three students said they continued to receive correspondence from MSSI, mostly invitations to MSSI activities such as career workshops, group luncheons and community events. Two of the students said they no longer had any contact with their Success Mentors, who had left CCBC for other positions, though they still received emails from other MSSI program leaders and instructors. All three students said that the MSSI program had provided them with essential skills such as how to navigate college expectations and use campus services. They also said the program encouraged them to continue to ask MSSI for help if they needed it.

The skills the students developed at MSSI benefited them in various ways. One of the students said he was able to apply for a scholarship that he used to pay for a substantial amount of his first-semester tuition at his new university.

CONCLUSION

For many of the students in this study, the decision to enroll in college was fueled by their own academic ambitions as well as encouragement from family members to continue their education beyond high school. For others, college was seen as a critical step on the path to career and financial stability. Regardless of their motivations, students who participated in focus groups and interviews with the research team began CCBC with the aim of either transferring to a four-year university or completing workforce certificates in their chosen career paths.

While some felt that their high school education had equipped them with the skills they needed to be successful in college, many others recognized that the expectations that CCBC instructors, advisors, and mentors placed on them as male students of color were vastly different from the lowered expectations they experienced high school. Most participants in the student voices study—both students in the program group and students in the control group—expressed favorable experiences as CCBC students, and generally felt that the faculty and staff members there were more supportive and approachable than the teachers and staff they had in high school. Most students said they liked their CCBC instructors and did not feel that differences in racial or ethnic backgrounds created any negative interactions with instructors, campus staff, or peers, or tensions around discussing issues of race, ethnicity, or gender. Some students also described CCBC as a supportive learning environment in which they could thrive academically.

Unfortunately, the global pandemic and the subsequent closures of the CCBC campuses weakened students' connections with CCBC, which in turn led to diminished levels of academic and social engagement. Nevertheless, many of the students in the study continued to progress semester to semester, with some struggling through virtual courses and having to manage other stressors outside of college created by the pandemic. As CCBC campuses began to reopen for in-person classes and campus activities, these students resumed their march toward achieving their college goals, with some returning to focus groups and reporting their successful transfers to four-year universities.

4

Findings on Academic Impacts

While there is a rich history of the study of programs for students of color, quantitative findings have been limited. To provide such information, a randomized controlled trial was implemented as part of MDRC's mixed-methods evaluation of the Male Student Success Initiative (MSSI) at the Community College of Baltimore County (CCBC).[1] This chapter answers the following two research questions:

- **Impact.** What were the impacts of the programs on short-term outcomes, such as persistence and GPA, and on longer-term outcomes, such as progress to graduation and degree completion or transfer?

- **Costs.** What were the costs of operating MSSI? Was MSSI more cost effective than the status quo?

As described earlier in detail, MSSI was designed to support male students of color throughout their academic journeys, leading ultimately to improved short- and long-term academic outcomes such as persistence and graduation or transfer to four-year institutions. This chapter examines whether MSSI's supports led to improvements in students' academic progress; it uses transcript data (available for all students enrolled in CCBC in any semester) and National Student Clearinghouse data. The chapter also examines the cost of the program. Because the COVID-19 pandemic disrupted student experiences and usual institutional practices during the study period, findings for the overall sample are also considered in context of the pandemic.

SUMMARY OF FINDINGS

- During the first semester of the intervention, the MSSI program increased enrollment rates in Academic Development 101: Transitioning to College (ACDV)—a one-credit course required for most students—by 10.3 percentage points for students in the program group compared with

1. See Appendix A for details on the study methodology.

students in the control group (66.4 percent and 56.1 percent, respectively). It also increased the number of program group students who passed the course in the first semester by 15.2 percentage points compared with control group students (43.4 percent and 28.1 percent, respectively). However, there is no evidence that the MSSI program affected overall persistence or completion in any semester for the full sample.

- After the program year, MSSI increased students' academic performance. By their fourth semester, program group students were 7.3 percentage points more likely than control group students to earn an A, B, or C in all courses taken (12.5 percent and 5.2 percent, respectively). When grades from the ACDV course—part of the intervention—were excluded from the grade calculations, program group students were 6.3 percentage points more likely than control group students to earn an A, B, or C in all other courses (12.3 percent and 6 percent, respectively) by their fourth semester.

- Program impacts were concentrated among first-generation students. The intervention induced higher ACDV enrollment among first-generation students in the first semester (68.2 percent of program group students compared with 39.8 percent of control group students, for a 28.4 percentage point increase). This differed from non-first-generation students, who had similar rates of enrollment in ACDV among program group students and control group students. The difference in first semester ACDV enrollment between first-generation students and non-first-generation students was 25.3 percentage points, which is statistically significant.

- In addition to affecting college operations, the COVID-19 pandemic affected academic outcomes, with positive impacts on most short-term academic outcomes concentrated in the pre-pandemic period. For example, before the pandemic, MSSI increased enrollment in the second semester by 13.8 percentage points for students in the program group compared with students in the control group (63.6 percent and 49.8 percent, respectively) and increased the ACDV pass rate in the first semester by 24.1 percentage points for students in the program group (63.0 percent compared with 38.9 percent for the control group) among the pre-pandemic sample. In other instances, there were no differences during the pre-pandemic period, but there were negative impacts during the pandemic period on enrollment in the ACDV course in the first semester and on credits attempted in the first and second semesters.

- The estimated cost of MSSI ranged from $36,862 to $59,387 over the six semesters of operation. The total estimated cost of the program was $269,115, or $89,705 per year. The cost per program student was $885. As a result of no early impacts on persistence and completion, cost effectiveness calculations could not be performed and therefore it is not possible to ascertain whether MSSI was more cost effective than the status quo.

IMPACTS ON ACADEMIC OUTCOMES

The two-semester MSSI program was designed to help increase persistence and academic success and improve noncognitive outcomes such as engagement in help-seeking behaviors.

Table 4.1 presents the academic outcomes for the full sample over the first two program semesters. The first panel of the table shows that the MSSI program did not affect enrollment in either the first or second semesters.[2] Eighty-one percent of all program group students enrolled in the first study semester, while 51 percent enrolled in the second semester. Note that impacts in the first semester were not expected, as all students were enrolled at CCBC prior to being enrolled into the study. However, there was a potential for enrollment to increase in the second semester. The reduced enrollment levels in the second semester were partially a result of the COVID-19 pandemic (discussed further, below) and partially the result of the second semester being the fall semester for some cohorts.[3]

The next panel shows enrollment in the ACDV class, where the program group enrolled at a rate of 10.3 percentage points higher than the control group in the first semester. The next set of rows show that program group students also passed the ACDV course at higher rates than the control group students (43.4 percent and 28.1 percent, respectively), in the first semester. Credits attempted and credits earned were the same on average for both groups, with students earning about four credits in their first semester of the program and about three credits in the second semester. The last row shows no statistical difference in academic success, as measured by the percentage of students earning an A, B, or C in all their courses.

Subgroup Outcomes

Given the limited number of sample members, MDRC prioritized the examination of first-generation college status as a moderator.[4] This group is important, as the research literature suggests that males of color who do not have a family history of college-going may experience greater difficulties in adjusting to college; therefore, the components of the ACDV-MSSI program model may be more likely to help such students.[5] First-generation status is defined as a student

2. Note that outcomes are estimated for the full sample—all program group students and control group students—independent of enrollment status. This means that study participants who did not enroll in a semester are included in the outcome averages as zeros. This is necessary to produce a causal estimate of the difference between groups (an intent-to-treat estimate). Estimates are also adjusted for several baseline characteristics. See description in Appendix A.

3. There are three spring cohorts in the sample and three fall cohorts. The second semester is fall for the spring cohorts and there is generally a decline in enrollment after the summer break (Attewell, Heil, and Reisel, 2012). Note that the second semester is not included for cohort 6 (the last cohort of students).

4. As previously noted, the analysis strategy was preregistered with the Registry of Efficacy and Effectiveness Studies, ID# 1785.1v2. As such, the subgroup analyzes were prespecified before analyzing the data.

5. Walton and Cohen (2007).

TABLE 4.1 Academic Outcomes for Semesters 1 and 2, Full Sample

Outcome	Program Group	Control Group	Impact	P-Value	Standard Error
Enrolled (%)					
1st semester	81.4	78.5	3.0	0.406	3.6
2nd semester	51.3	46.9	4.4	0.408	5.3
Enrolled in ACDV class (%)					
1st semester	66.4	56.1	10.3 **	0.012	4.1
2nd semester	7.2	10.7	-3.4	0.261	3.1
Passed ACDV class (%)					
1st semester	43.4	28.1	15.2 ***	0.000	4.2
2nd semester	2.3	4.8	-2.5	0.227	2.1
Credits attempteda					
1st semester	7.5	7.8	-0.3	0.490	0.5
2nd semester	5.1	5.0	0.2	0.788	0.6
Credits earned					
1st semester	4.3	3.9	0.3	0.446	0.4
2nd semester	2.9	2.6	0.3	0.496	0.5
Received A, B, or C in all courses (%)					
1st semester	22.5	19.1	3.5	0.350	3.7
2nd semester	13.4	12.9	0.6	0.874	3.6
Excluding ACDV					
Credits attempted[a]					
1st semester	6.8	7.3	-0.4	0.357	0.4
2nd semester	5.1	4.9	0.2	0.744	0.6
Credits earned					
1st semester	3.8	3.6	0.2	0.657	0.4
2nd semester	2.9	2.5	0.4	0.462	0.5
Received A, B, or C in all courses (%)					
1st semester	29.5	23.5	6.0	0.142	4.1
2nd semester	13.4	12.9	0.6	0.874	3.6
Sample size (total = 514)	304	210			

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Second semester estimates do not include cohort 6. The sample size for second semester outcomes is 206 for the program group and 169 for the control group (375 total). See Appendix Table E.1 for standard deviations and Appendix Table E.2 for estimates for cohorts 1-5 only.

[a]Includes class withdrawals, dropped classes, and incompletes.

being the first in their immediate family (for example, parents and siblings) to attend college. This characteristic was obtained through student self-reporting on the baseline information form collected at the time of randomization into the study.

Table 4.2 shows the academic outcomes in the MSSI program semesters for first-generation students in the left panel and those for non-first-generation students in the right panel. First-generation students had higher ACDV enrollment rates as a result of the program, with 68.2 percent of program group students enrolled in ACDV in the first semester compared with 39.8 percent of control group students (a 28.4 percentage point increase). This enrollment pattern differs from that of non-first-generation students, who had similar rates of enrollment in ACDV. The difference in first semester ACDV enrollment between first-generation students and non-first-generation students is 25.2 percentage points (not shown in the table), which is statistically significant as demonstrated by the dagger symbols in the last column. In addition, first-generation students received grades of A, B, or C in all courses at a higher rate than control group students in the first semester when compared with non-first-generation students. The patterns of no impacts on credits attempted and credits earned and positive impacts on receiving an A, B, or C in courses remain the same after removing the ACDV course from consideration. This suggests that the patterns are not the result of only inducing program group students to take the ACDV course, which would imply a limitation of the intervention. Rather, the patterns suggest that the intervention had effects on other academic courses as well.

ACADEMIC OUTCOMES AFTER THE MSSI PROGRAM YEAR

While the MSSI program evaluated in the MDRC study was designed to have two semesters of programming, MSSI staff members encouraged students from prior semesters in MSSI to remain engaged in the program, particularly in mentoring and group meetings when they were offered. As a result, the outcomes beyond the first year of the program may reflect some continued support.

Because the first three study cohorts (about 60 percent of the study sample) enrolled in the study before mid-2020, MDRC was able to access data from CCBC for these students beyond the first MSSI program year. Table 4.3 presents academic outcomes for these cohorts. The table shows that MSSI had no effect on persistence into the third or fourth semester and no effect on credits attempted or credits earned. However, MSSI improved grades in the fourth semester. The table shows that 5.2 percent of control group students received grades of A, B, or C in all their classes, and program group students were almost 2.5 times more likely to do so, resulting in a difference of 7.3 percentage points. When excluding the ACDV course from the grades, the general pattern remains, with program group students being 6.3 percentage points more likely than control group students to earn grades of A, B, or C in all courses in the fourth semester. It is unclear why impacts appeared in this semester and not the prior semester.

TABLE 4.2 Academic Outcomes for Semesters 1 and 2, by First-Generation Status

	First-Generation Students					Non-First-Generation Students					
Outcome	**Program Group**	**Control Group**	**Impact**	**P-Value**	**Standard Error**	**Program Group**	**Control Group**	**Impact**	**P-Value**	**Standard Error**	**Sig.**
Enrolled (%)											
1st semester	79.6	70.4	9.2	0.205	7.2	81.8	82.5	-0.7	0.867	4.3	
2nd semester	57.0	44.5	12.5	0.287	11.6	49.9	44.9	5.0	0.442	6.5	
Enrolled in ACDV class (%)											
1st semester	68.2	39.8	28.4 ***	0.000	7.7	65.5	62.4	3.2	0.535	5.1	†††
2nd semester	8.8	13.5	-4.7	0.510	7.1	7.9	8.7	-0.8	0.831	3.7	
Passed ACDV class (%)											
1st semester	45.2	19.6	25.6 ***	0.004	8.7	42.6	30.4	12.1 **	0.020	5.2	
2nd semester	2.7	4.6	-1.9	0.677	4.5	2.4	4.7	-2.3	0.370	2.6	
Credits attempted[a]											
1st semester	7.5	6.9	0.6	0.528	0.9	7.4	8.2	-0.8	0.173	0.6	
2nd semester	5.7	4.7	1.0	0.473	1.4	4.7	4.9	-0.2	0.761	0.8	
Credits earned											
1st semester	4.5	3.6	1.0	0.290	0.9	4.0	4.1	0.0	0.957	0.6	
2nd semester	3.6	2.3	1.2	0.245	1.1	2.4	2.5	-0.2	0.787	0.6	
Received A, B, or C in all courses (%)											
1st semester	25.3	12.6	12.7 *	0.077	7.1	20.2	22.3	-2.1	0.646	4.6	†
2nd semester	13.2	15.1	-2.0	0.791	7.4	13.4	11.4	2.0	0.649	4.5	

(continued)

TABLE 4.2 (continued)

Outcome	First-Generation Students					Non-First-Generation Students					
	Program Group	Control Group	Impact	P-Value	Standard Error	Program Group	Control Group	Impact	P-Value	Standard Error	Sig.
Excluding ACDV											
Credits attempted[a]											
1st semester	6.8	6.5	0.3	0.732	0.9	6.8	7.6	-0.8	0.149	0.6	
2nd semester	5.6	4.6	1.0	0.445	1.3	4.6	4.8	-0.2	0.767	0.8	
Credits earned											
1st semester	4.1	3.4	0.7	0.414	0.9	3.6	3.7	-0.2	0.774	0.5	
2nd semester	3.5	2.3	1.3	0.234	1.1	2.3	2.5	-0.1	0.814	0.6	
Received A, B, or C in all courses (%)											
1st semester	32.0	15.2	16.9 **	0.030	7.7	26.6	27.8	-1.2	0.816	5.0	††
2nd semester	13.2	15.1	-2.0	0.791	7.4	13.4	11.4	2.0	0.649	4.5	
Sample size (total = 502)	93	59				204	146				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
Statistically significant differences in impacts across subgroups are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.
Second semester estimates do not include cohort 6. See Appendix Table E.3 for the standard deviations and Appendix Table E.4 for estimates for cohorts 1-5 only.
[a]Includes class withdrawals, dropped classes, and incompletes.

TABLE 4.3 Academic Outcomes After the MSSI Program Year, Cohorts 1 to 3

Outcome	Program Group	Control Group	Impact	P-Value	Standard Error
Enrolled (%)					
3rd semester	40.4	32.9	7.5	0.234	6.3
4th semester	33.6	26.0	7.6	0.220	6.2
Credits attempted[a]					
3rd semester	3.8	3.6	0.2	0.721	0.7
4th semester	2.9	2.6	0.3	0.639	0.7
Credits earned					
3rd semester	2.4	1.9	0.5	0.318	0.5
4th semester	1.9	1.6	0.3	0.531	0.5
Received A, B, or C in all courses (%)					
3rd semester	10.5	8.6	1.9	0.639	4.0
4th semester	12.5	5.2	7.3 **	0.048	3.6
Graduated from CCBC within 4 semesters (%)	0.0	0.0	0.0	---	0.0
Transferred to another institution within 4 semesters (%)	7.0	7.9	-0.9	0.805	3.6
Received a credential within 4 semesters (%)	0.0	0.0	0.0	---	0.0
Received an associate's degree within 4 semesters (%)	0.0	0.0	0.0	---	0.0
Received a bachelor's degree or higher within 4 semesters (%)	0.0	0.0	0.0	---	0.0
Excluding ACDV					
Received A, B, or C in all courses (%)					
3rd semester	10.5	8.6	1.9	0.639	4.0
4th semester	12.3	6.0	6.3 *	0.092	3.7
Sample size (total = 256)	122	134			

SOURCES: MDRC calculations using transcript data from the Community College of Baltimore County and the National Student Clearinghouse.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. See Appendix Table E.5 for standard deviations.

Dashes (--) indicate that the measure is not applicable as neither program group students nor control group students graduated or received a credential within 4 semesters.

[a]Includes class withdrawals, dropped classes, and incompletes.

THE EFFECT OF COVID-19 ON ACADEMIC OUTCOMES

There is strong evidence that the COVID-19 pandemic diluted the impacts on short-term academic outcomes that MSSI might have sustained otherwise, as indicated through the implementation findings in Chapter 2. Table 4.4 divides the full sample into pre-pandemic and pandemic periods. The table shows markedly different patterns in academic outcomes for these two groups during

TABLE 4.4 Academic Outcomes for Semesters 1 and 2, by Pandemic Period

	Pre-Pandemic (Cohorts 1-2)					Pandemic (Cohorts 3-6)					
Outcome	**Program Group**	**Control Group**	**Impact**	**P-Value**	**Standard Error**	**Program Group**	**Control Group**	**Impact**	**P-Value**	**Standard Error**	**Sig.**
Enrolled (%)											
1st semester	91.7	84.7	7.1	0.135	4.7	74.0	76.1	-2.1	0.684	5.2	
2nd semester	63.6	49.8	13.8 *	0.063	7.4	34.8	47.7	-12.9	0.124	8.3	††
Enrolled in ACDV class (%)											
1st semester	85.0	78.6	6.4	0.244	5.5	53.7	42.4	11.3 *	0.059	5.9	
2nd semester	8.3	11.8	-3.6	0.431	4.5	5.8	10.0	-4.1	0.353	4.4	
Passed ACDV class (%)											
1st semester	63.0	38.9	24.1 ***	0.001	7.3	28.8	23.7	5.1	0.328	5.2	††
2nd semester	2.4	4.5	-2.1	0.457	2.8	2.4	5.0	-2.6	0.447	3.4	
Credits attempted[a]											
1st semester	9.4	8.7	0.7	0.361	0.7	6.2	7.4	-1.1 *	0.074	0.6	†
2nd semester	6.6	5.7	0.9	0.314	0.9	3.0	4.8	-1.8 **	0.040	0.9	††
Credits earned											
1st semester	5.8	4.7	1.1	0.151	0.8	3.1	3.6	-0.5	0.378	0.6	†
2nd semester	3.8	3.0	0.8	0.272	0.8	1.6	2.4	-0.8	0.235	0.7	
Received A, B, or C in all courses (%)											
1st semester	26.4	17.7	8.7	0.164	6.2	18.1	22.2	-4.1	0.398	4.8	
2nd semester	14.7	11.3	3.4	0.499	5.0	12.4	14.6	-2.2	0.696	5.6	

(continued)

TABLE 4.4 (continued)

Outcome	Pre-Pandemic (Cohorts 1-2) Program Group	Control Group	Impact	P-Value	Standard Error	Pandemic (Cohorts 3-6) Program Group	Control Group	Impact	P-Value	Standard Error	Sig.
Excluding ACDV											
Credits attempted[a]											
1st semester	8.5	7.9	0.6	0.369	0.7	5.7	6.9	-1.2 **	0.042	0.6	††
2nd semester	6.5	5.5	0.9	0.291	0.9	2.9	4.7	-1.8 **	0.043	0.9	††
Credits earned											
1st semester	5.1	4.3	0.8	0.236	0.7	2.8	3.4	-0.6	0.313	0.6	
2nd semester	3.8	3.0	0.9	0.256	0.7	1.6	2.4	-0.8	0.247	0.7	
Received A, B, or C in all courses (%)											
1st semester	31.8	26.0	5.8	0.401	6.9	26.1	24.2	1.8	0.724	5.2	
2nd semester	14.7	11.3	3.4	0.499	5.0	12.4	14.6	-2.2	0.696	5.6	
Sample size (total = 514)	92	112				212	98				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

Statistically significant differences in impacts across subgroups are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent. Second semester estimates do not include cohort 6. See Appendix Table E.6 for standard deviations and Appendix Table E.7 for estimates for cohorts 1-5 only.

[a]Includes class withdrawals, dropped classes, and incompletes.

the first two semesters, with positive impacts on most short-term academic outcomes occurring during the pre-pandemic period. For example, before the COVID-19 pandemic, MSSI increased enrollment in the second semester by 13.8 percentage points for students in the program group (63.6 percent compared with 49.8 percent for students in the control group) and increased passing ACDV in the first semester by 24.1 percentage points for program group students over control group students (63 percent and 38.9 percent, respectively).

These positive, short-term outcomes were eliminated during the pandemic, or no impacts changed to negative impacts. As the table shows, enrollment rates in the first and second semesters were markedly lower among the pandemic cohorts, with second semester enrollment rates at around 35 percent for program group students and 48 percent for control group students. This reflects a 26.7 percentage point difference (not shown in the table), which is statistically significant, as indicated by the daggers in the last column. ACDV enrollment also declined among the pandemic cohorts for both program group students and control group students in the first semester (53.7 percent compared with 42.4 percent, respectively). While the 11.3 percentage point difference is statistically significant, these patterns cannot be distinguished from those in the pre-pandemic period (as indicated by the absence of daggers in the last column). Students in the pandemic period attempted fewer credits and earned fewer credits in the first semester compared with students in the pre-pandemic period, as indicated by the daggers in the last column.

COST AND COST EFFECTIVENESS OF THE MSSI PROGRAM

Understanding program costs allows current implementers to determine whether resources are being used effectively while helping potential adopters understand the level of resources that may be required to implement a program model. (See Box 4.1.)The costs of MSSI, like many

BOX 4.1 Cost Effectiveness

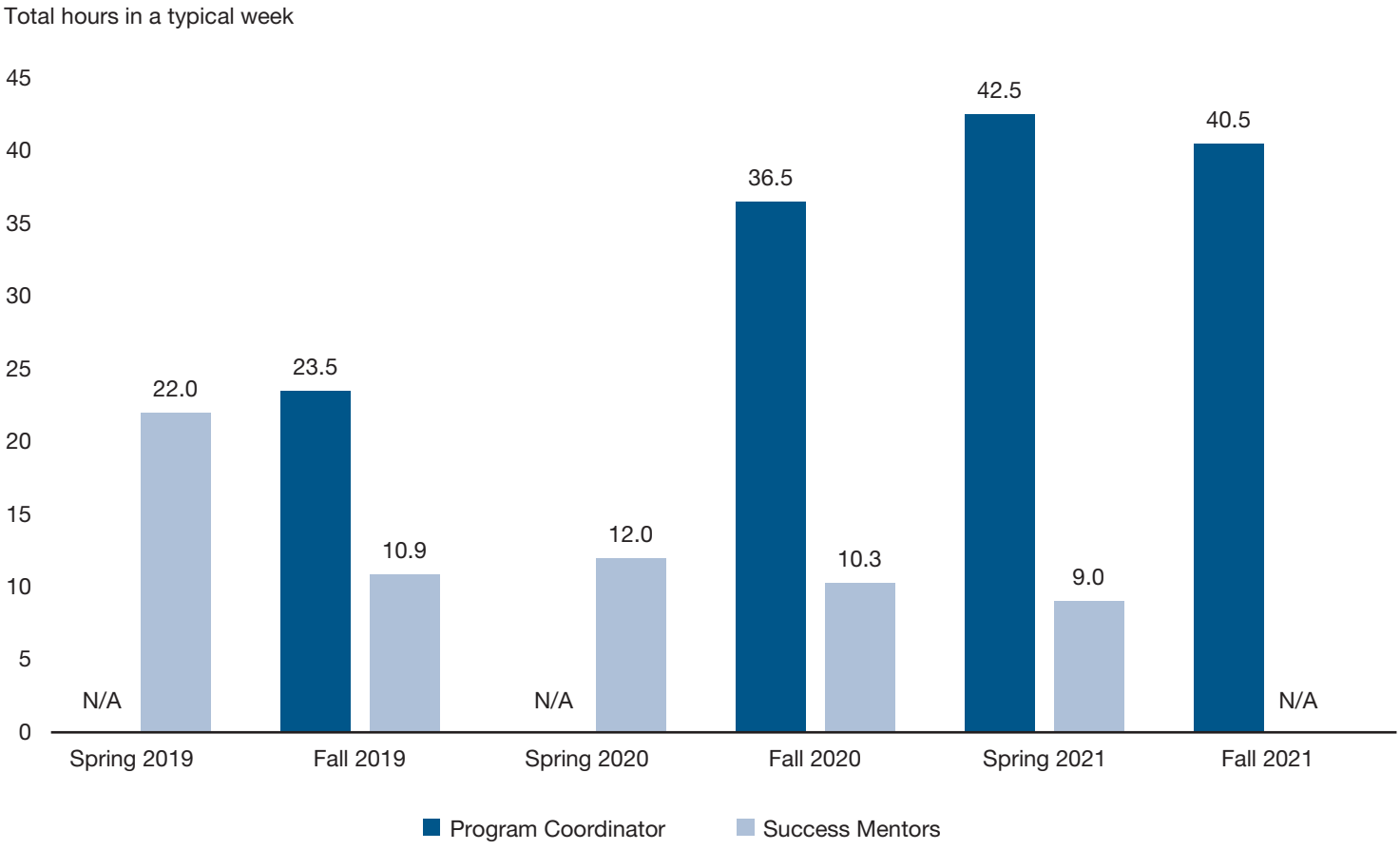
One of the benefits of a randomized controlled trial is the attainment of causal impact estimates, which can represent a measure of effectiveness. Cost-effectiveness analysis is performed by dividing costs by a measure of effectiveness. The resulting cost-effectiveness ratio (CER) allows practitioners and policymakers to compare programs by comparing CERs, enabling the selection of an alternative that provides the best results relative to costs.

The MSSI program was designed to support male students of color throughout their academic journeys, leading ultimately to graduation or transfer to four-year institutions, and to support of noncognitive outcomes such as academic self-efficacy and internal locus of control. Given that it is too early to examine completion outcomes (and such outcomes may be delayed or disrupted because of the pandemic), a full cost-effectiveness analysis may also be delayed.

educational interventions, consisted primarily of personnel costs. As noted in Chapter 2, the program employed several Success Mentors over the study period as well as a program coordinator.

Figure 4.1 displays the average hours expended in a typical week by MSSI Success Mentors and the program coordinator by term.[6] Based on voluntary time logs collected over a week of time (to indicate typical time spent on activities), the figure shows that Success Mentors are estimated to have spent an average of 22 hours on program activities a week during spring 2019. This time declined by almost half (about 11 hours) after the program coordinator was hired in fall 2019, and the program coordinator spent an average of 23.5 hours per week on the program. The figure also shows that the time spent by the program coordinator increased in the last few terms.

FIGURE 4.1 Average Weekly Time Use by MSSI Staff, by Term (in Hours)



(continued)

6. The program also employed a program director and a research coordinator. The program director position remained vacant for much of the study period, so reported hours were negligible and not included. The research coordinator covered the duties of the program director, and these hours are included in the calculations. All research-related tasks, including costs associated with the research coordinator position, are excluded from the cost estimates.

FIGURE 4.1 (continued)

SOURCES: MDRC calculations using time logs collected from administrators and Success Mentors, spring 2019 through fall 2021. Logs were not collected from the MSSI Program Coordinator in spring 2020 and from the Success Mentors in fall 2021.

NOTES: The number of Success Mentors varies over time, as shown in Table 2.2. Average hours per Success Mentor and Program Coordinator are calculated based on the voluntary logs, which varied in quality. Hours do not include time devoted to research study activities.

N/A = data not available.

Overall, the program coordinator spent close to 70 percent of the time on administrative tasks and 20 percent on student engagement.[7] Administrative tasks entailed coordinating the Success Mentors, meeting with Success Mentors and college administrators, organizing trips and securing space for events, as well as resolving issues with timecards and planning trainings. In contrast, Success Mentors spent about 65 percent of their time on student engagement and teaching. Figures 4.2 and 4.3 show how time spent on these tasks by MSSI staff varied by the pre-pandemic and pandemic periods, respectively.

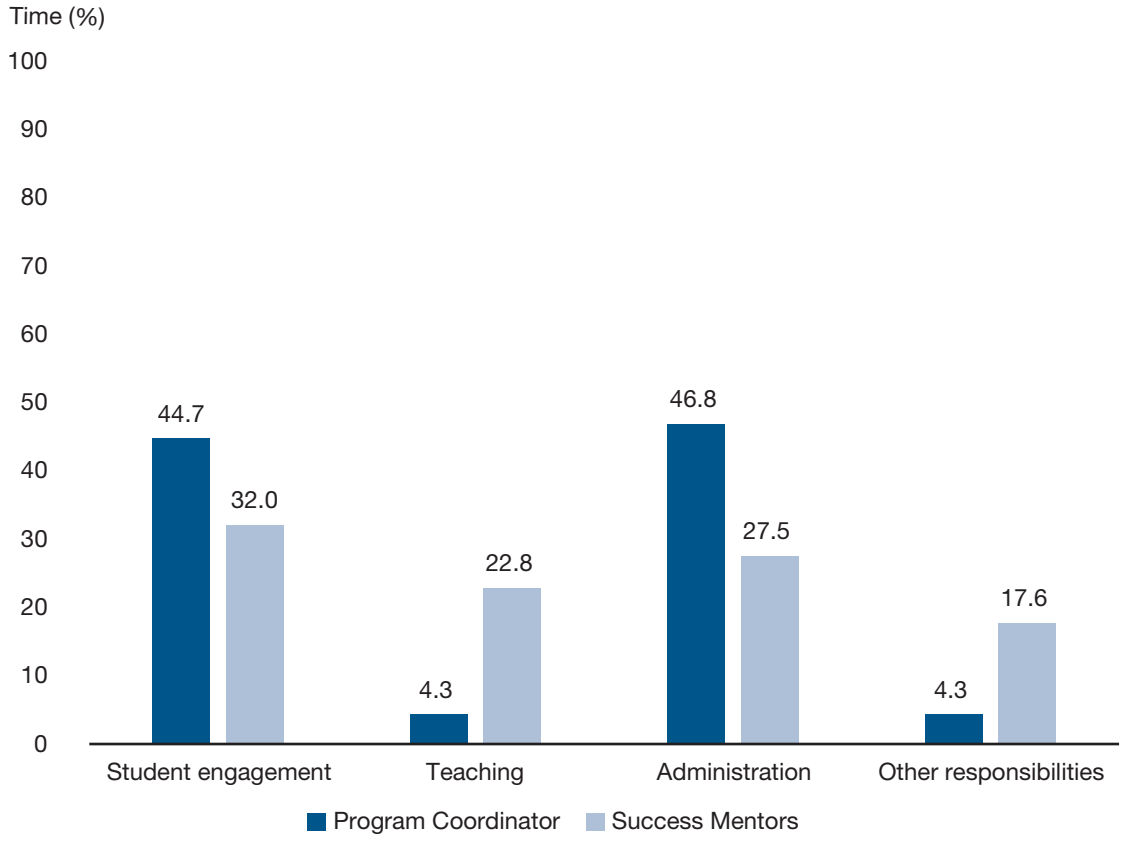
In the pre-pandemic period, the program coordinator divided time almost evenly between student engagement and administrative tasks. Success Mentors spent about half of their time on student engagement and teaching, with the remainder devoted to administrative activities and other responsibilities. Figure 4.3 shows that during the pandemic period, the program coordinator shifted time to devote slightly more than 75 percent of time on administration, with about 11 percent spent on student engagement. The shift in time to administration corresponded to the change from in-person attendance to virtual attendance in classes and activities and an increased need to coordinate with Success Mentors and administrators. In contrast, Success Mentors increased their time focused on student engagement and teaching to about 75 percent.

Table 4.5 provides estimated costs per term based on information on hours spent on the MSSI program and information on hourly rates (for Success Mentors) and salary (for the program coordinator) from CCBC job descriptions. The table shows that the estimated cost of Success Mentors varied from $29,101 in spring 2019 to $5,414 in fall 2021. This variation was expected as the number of Success Mentors changed across terms (from a high of seven mentors in spring 2019 to a low of two mentors in spring 2021). In addition, the amount of time Success Mentors spent on MSSI activities also varied by term, as shown in Figure 4.1. In contrast, the administrator costs were relatively stable over time. The one change was spring 2019, when the cost reflects the time spent by a program director who was compensated in-kind through a course release.[8] After this director resigned, the program coordinator assumed all the director's duties starting in fall 2019.

7. Not shown in figure. These are estimates based on time logs for a typical week in each semester. See Appendix Table D.1 for details.

8. A course release is when faculty are released from teaching a course and that time (and compensation) is used for another endeavor.

FIGURE 4.2 Percentage of Time Spent Across Activities by MSSI Staff in the Pre-Pandemic Period



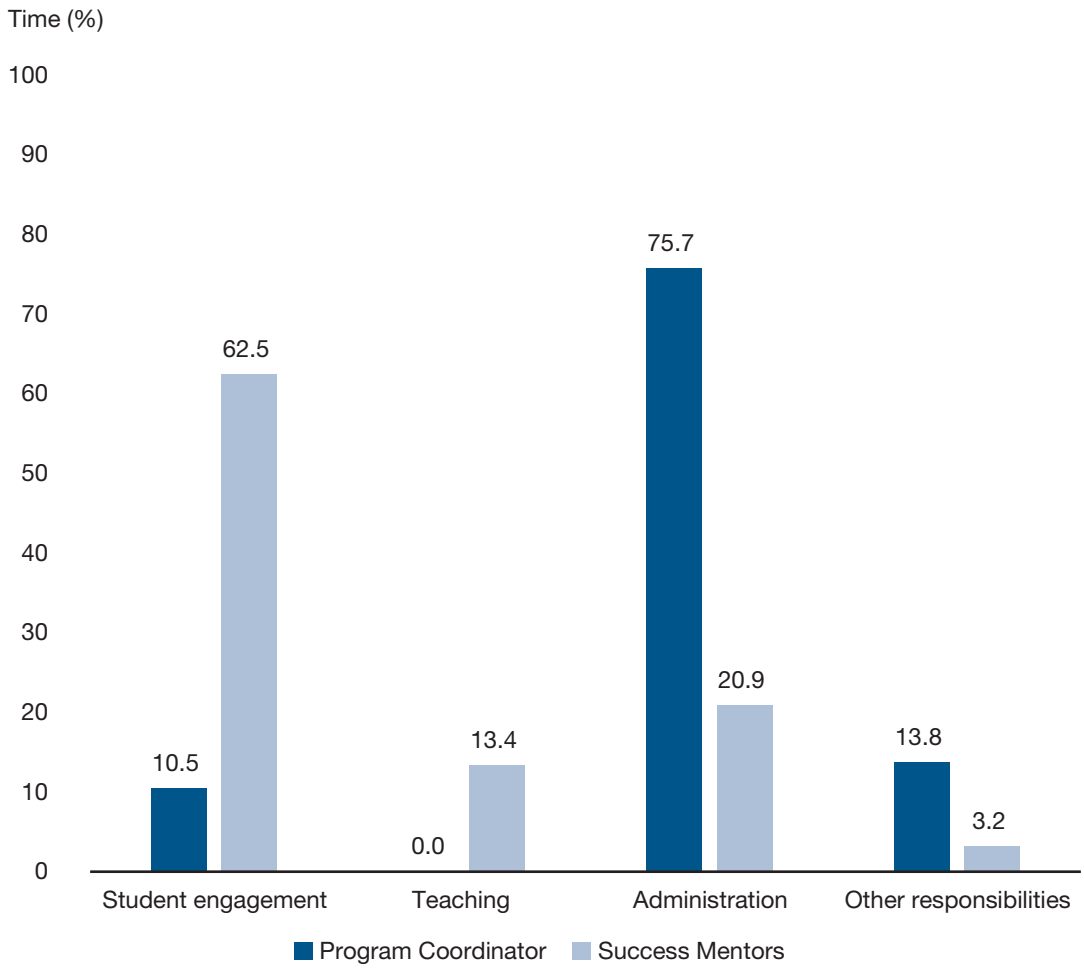
SOURCES: MDRC calculations using time logs collected from administrators and Success Mentors, spring 2019 through fall 2021.

NOTES: Estimates are for spring 2019 and fall 2019 only. The number of Success Mentors varied over time, as shown in Table 2.2. Average hours per Success Mentor and Program Coordinator are calculated based on the voluntary logs, which varied in quality. Hours do not include time devoted to research study activities.

Dividing the total costs by the number of program students intended to be served results in the cost per student.[9] The cost per student ranged from a high of $1,474 per student in spring 2019 to

9. Levin et al. (2018); The number of students intended to be served is the number of program group students recruited each term plus the program group students in their second eligible term, independent of whether they enrolled (as the college needed to be staffed to serve the eligible population). This intended number of students is shown in the the second to last row of Table 4.5 for each semester and represents an intent to treat cost analysis. When accounting only for the program group students who enrolled (treatment on the treated analysis), the cost per student ranges from a high of $1,474 per student in spring 2019 to a low of $273 per student in fall 2021.

FIGURE 4.3 Percentage of Time Spent Across Activities by MSSI Staff in the Pandemic Period



SOURCES: MDRC calculations using time logs collected from administrators and Success Mentors, spring 2019 through fall 2021. Logs were not collected from the MSSI Program Coordinator in spring 2020 and from the Success Mentors in fall 2021.

NOTES: Estimates are for spring 2020 through fall 2021 only. The Program Coordinator does not have data for teaching. The number of Success Mentors varies over time, as shown in Table 2.2. Average hours per Success Mentor and Program Coordinator are calculated based on the voluntary logs, which varied in quality. Hours do not include time devoted to research study activities.

a low of $273 per student in fall 2021 because of the variation noted above as well as the change in the number of program group students in their first or second terms. The overall average cost was $885 per student. This average cost per student was $1,046 in the pre-pandemic period and $815 in the pandemic period (not shown in table). To derive the per year cost, the total cost was divided by the number of academic years represented (three years in total).

TABLE 4.5 Estimated Cost of MSSI, by Term

Outcome	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Total Cost	Cost per Year
Total costs ($)	$36,862	$59,387	$48,964	$47,257	$37,888	$38,757	$269,115	$89,705
Personnel								
Success Mentors	$29,101	$14,714	$15,591	$13,639	$4,545	$5,414	$83,004	$27,668
Administrators	$7,741	$33,343	$33,343	$33,343	$33,343	$33,343	$174,456	$58,152
Other	$20	$11,330	$30	$275	$0	$0	$11,655	$3,885
Number of program group students intended[a]	25	92	97	70	84	142	304	101
Cost per intended program participant	$1,474	$646	$505	$675	$451	$273	$885	$885

SOURCE: MDRC calculations based on time allocation and material purchases obtained from cost logs collected from administrators and Success Mentors, spring 2019 through fall 2021. Information on hourly rates for Success Mentors and salary for the program coordinator taken from job descriptions posted on CCBC's employment website, https://www.ccbcmd.edu/About-CCBC/Work-at-CCBC.aspx. Other expense estimates are obtained from budget submission data from CCBC for all periods.

NOTES: For Success Mentors, cost calculation is based on estimated hours each term from time logs (see Appendix Table D.1), hourly wages in real 2021 dollars, and the assumption that Success Mentors worked for 12 weeks each term. Cost calculations for administrators include the program director position (filled only in spring 2019 and otherwise vacant) and program coordinator position (filled fall 2019 through the end of the period). The salary is estimated from a CCBC job announcement for a coordinator-academic affairs (used the midpoint of $66,686 annually based on the range of $51,204 to $82,168).

[a]The number of program group students intended to be served is the number of program group students recruited each term plus the program group students in their second eligible term, independent of whether they enrolled (as the college needed to be staffed to serve the eligible population).

CONCLUSION

Overall, the evaluation of MSSI suggests that the program did not have positive effects on persistence, one key academic outcome of interest. But there is evidence that the program contributed to academic success by increasing the percentage of program group students earning grades of A, B, or C. The results suggest that the findings are largely driven by first-generation students, who demonstrated larger impacts on academic outcomes when compared with non-first-generation students.

The pandemic disrupted the experimental evaluation of the MSSI model, creating subsamples with different experiences of the program because of a massive change in context. As a result, the study sample is divided between those who experienced the program in-person (204 students or about 40 percent of the sample) and those who experienced the program during the pandemic (310 students or about 60 percent of the sample). The findings in this chapter show that academic outcomes varied across the pre-pandemic and pandemic groups. As noted in Chapter 2, the treatment contrast and the context of education at CCBC also changed during this time period. These factors collectively contribute to the lack of positive academic impacts in the pandemic period. However, the MSSI program effect in the pre-pandemic period seems strong enough to maintain some impacts when examining the full sample. This suggests that the MSSI program may have had stronger impacts—despite the lack of fidelity of implementation—had the global pandemic not occurred.

5

Conclusion

As noted in Chapter 1, programs designed to support male students of color at community colleges have been available for quite some time, and there is extensive qualitative literature on the implementation of these programs and their value to students. In contrast, there are few quantitative studies of the effect of this type of programming on academic outcomes. Aimed at addressing that gap, this report provides the first causal estimates of the effects of one such program—the Male Student Success Initiative (MSSI) at the Community College of Baltimore County (CCBC)—on academic outcomes. The findings show that MSSI, which combines academic advising and coaching, study skills training, leadership and career development, mentoring, and special events and workshops, improved some academic success measures, such as earning grades of A, B, or C in courses. The findings also suggest that MSSI improved outcomes more for first-generation male students of color than their non-first-generation peers. Despite the program's implementation challenges, these findings suggest that MSSI has promise for generating larger impacts with stronger implementation.

This chapter explores factors that may have affected the findings, limitations of the evaluation approach, implications for the field, and considerations for future research.

FACTORS INFLUENCING THE FINDINGS

Overall, the findings suggest that the staff and administrators of MSSI did not implement the program as planned in several areas, yet the program generated positive impacts. These findings could reflect the competing factors of implementation versus context. That is, while implementation fidelity to the planned design was low, the need for the program may have been high and this need may have resulted in positive impacts.

On the other hand, poor implementation may have suppressed positive impacts. Chapter 2 summarized the differences between the planned program and the actual program to assess implementation fidelity. Table 2.2 in that chapter shows that the number of Success Mentors in each term during the full study evaluation period from 2019 through spring 2022 was lower than the planned number, except for spring 2019. In addition, the planned number of students

to be served was higher than the actual number served. Together, these patterns resulted in the actual caseloads for each Success Mentor being higher than the planned caseloads in some semesters and lower in other semesters. The higher caseloads generally occurred during the pandemic period. In addition, the last row of Table 2.2 shows that the hours spent per student changed dramatically over the six terms, from 60 hours per student in spring 2019 to 6 hours per student in spring 2021.

Not shown in the table are the changes in leadership that may have affected the program. After the founding leader of MSSI moved on at the end of fall 2018, leadership of the program was handled by a succession of individuals over time. This likely had a negative effect on the program; research suggests that leadership is the most important factor for change initiatives, and leadership teams are often more successful than leadership that rests with a single individual.[1]

The varying implementation fidelity may be correlated with academic impacts. Chapter 4 shows that impacts were strongest for the first two cohorts in the study (Table 4.4). Given evidence that impacts appeared to be driven by these cohorts (see the daggers in the last column of Table 4.4), the implementation findings are consistent with the explanation that these students likely received a higher dosage of program services relative to later cohorts. In addition to these factors, leadership turnover hampered the implementation of the MSSI program.

MSSI was also impacted by two national crises—external factors that deeply affected the program. The first—the COVID-19 pandemic—forced CCBC to change the modality of learning as most classes moved to a virtual format in spring 2020. Second, the killing of unarmed Black people in 2020, including Ahmaud Arbery in February, Breonna Taylor in March, and George Floyd in May, as well as 17 more fatal police shootings of unarmed Black men across the country that year (see also Table 2.1 in Chapter 2) likely affected students and Success Mentors differentially. Research suggests the death of George Floyd resulted in widespread anger and sadness, which was most pronounced among Black Americans.[2] These contextual factors may have increased the importance of the MSSI program to students (and administrators) in ways that served to mitigate the effect of the implementation failures.

Another contextual factor was declining enrollment at CCBC over time, also shown in Table 2.1. Enrollment declines, which were evident as early as fiscal year 2013, accelerated during the study period. This likely affected recruitment into MSSI, since there were fewer students who met program criteria than in the past. This, combined with the MDRC research team's study requirement to recruit more students to accommodate the control group, likely resulted in more time and effort spent on sample recruitment than desired. This, in turn, may have contributed to lower impacts by cannibalizing the time available for MSSI staff to spend on student engagement and teaching.

1. Hurtado and Ponjuán (2005); Ponjuán et al. (2017); Sáenz et al. (2016).
2. Eichstaedt et al. (2021).

Meanwhile, high numbers of students requiring some developmental course work (as shown in Table 2.1) may have increased the need for the MSSI programming. In addition, the gap between the number of nonwhite students and nonwhite faculty and staff at CCBC (also shown in Table 2.1) may have contributed to the need for MSSI, as the program intentionally matched students of color with instructors and Success Mentors of color—matches that were not likely to have occurred otherwise based on student survey findings. In this way, MSSI may have provided needed connections and staff members that students could more readily identify with, thus mitigating the effects of the implementation challenges.

LIMITATIONS OF THE EVALUATION APPROACH

MSSI contains many of the components often found in programming for male students of color. As a result, the findings in this report may be useful for a broad set of practitioners and administrators who are interested in implementing a similar program or refining an existing one. Another benefit of this evaluation study is its mixed-methods design, which included a randomized controlled trial. Effective randomization ensures internal validity of estimates, meaning the outcome findings reflect the impact of the MSSI program and not other factors. At the same time, the qualitative components of the evaluation design permitted the examination of several factors that could affect impacts such as implementation fidelity, dosage, and treatment contrast.

While these aspects strengthened the study design, it is important to note limitations as well. First, the study examined just one program, which operated on three campuses of a single institution. As a result, generalizability of the study findings to other populations of interest may not be supported; impacts could vary if the program were implemented elsewhere. Second, the low fidelity of implementation makes it difficult to determine whether the theory of change underlying the program was flawed or whether better implementation would have resulted in stronger impacts; the study design did not permit a conclusive answer to support either hypothesis. Finally, the study experienced a massive disruption in the form of a global pandemic, and the qualitative data do not readily portray the widespread uncertainty and challenges of keeping students and faculty safe during the cataclysmic early period of the health crisis. In addition, while not examined in this report, it is plausible that the pandemic may have had differential effects on CCBC students and administrators, as it became clearer that there were racial, ethnic, and socioeconomic disparities in the incidence of illness, hospitalization, and death due to the virus.

IMPLICATIONS FOR THE FIELD AND CONSIDERATIONS FOR FUTURE RESEARCH

There may not be a simple answer to the question of whether MSSI "works," and this complexity reflects the challenges of sustaining or growing such programming at CCBC or elsewhere. Research suggests that institutional programs and policies are critical to creating a climate that supports student engagement. There is also evidence of the challenges of addressing the unique

needs of male students of color and of marshaling the political will and the resources needed to support such targeted programming. Indeed, while programs for male students of color have existed for some time, they are often not sustained. As noted in Chapter 1, a review of over 80 such programs showed similarities in programming and national implementation, but many of those programs were not operating in 2018 at the start of this study.[3]

That MSSI had positive effects in such a challenging context—and despite the implementation challenges—suggests that the program might generate larger impacts with stronger implementation, though the study design does not permit a conclusive answer.

Given all of this, one consideration for future researchers would be to establish at the outset that there is strong institutional commitment for a program or programs, as demonstrated through prior continuous funding, stable leadership, and long-standing, executive-level championship, before proceeding with an evaluation. As indicated in this report, these foundational-level supports can affect the intervention in multiple ways and thus affect the findings.

3. Gardenhire and Cerna (2016).

APPENDIX

A

Study Methodology

ANALYSIS STRATEGY FOR THE IMPLEMENTATION STUDY

The implementation study analysis relies on a convergent mixed-methods approach, integrating both quantitative and qualitative approaches to answer the research questions presented earlier. With this approach the team triangulated findings from multiple quantitative and qualitative data sources in addition to using qualitative analysis to complement quantitative analytic findings for the ultimate purpose of describing how the program operated "on the ground."

ANALYSIS STRATEGY FOR QUALITATIVE DATA

Interviews and focus groups were audio-recorded and then transcribed. The files were imported into Dedoose, a web-based, mixed-methods analysis software package, to systematically code the data in a multistep process; student focus group transcripts were analyzed separately from staff and administrative interviews.[1] The development of the coding scheme involved several stages. First, *structural code* based on the topics that were intentionally included in most interviews (that is, following the semi-structured questions and topical probes of the protocols), were created a priori reflecting the theory of change.[2] These broad codes (for example, "strategies or methods used to recruit students" or "best practices and lessons") essentially served as an indexing device. They were used to evaluate the consistency of the interviews (how commonly the code was covered) and the richness of data collected (the extent to which topics were covered in the interviews). The initial coding was used to identify gaps in information to follow-up on during subsequent visits.

Second, for both the interview and focus group data, a more detailed coding structure, which included subcodes under structural codes as well as additional codes for emerging topics, was created based on the coding team's review of the first level codes. This was an iterative process, as some codes were identified in advance, but many were data-driven and developed during the process to accommodate new and emerging themes.

The implementation analysis also included data from direct observation of Academic Development 101 (ACDV) courses, including special, culturally contextualized courses for MSSI students called ACDV-MSSI. A systematic observation rubric was designed to capture information and was analyzed descriptively for the purpose of developing a better understanding of how ACDV was delivered to students in ACDV-MSSI and how the course differed for the program and control group.

Finally, information culled from various documents—such as the ACDV curriculum, MSSI marketing materials, and campus level statistics—were analyzed separately and integrated with other analyses as appropriate.

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1. http://www.dedoose.com/.
2. Saldaña (2009).

ANALYSIS STRATEGY FOR TRANSCRIPT DATA

The primary analytic method used to determine program impacts was comparing average regression-adjusted outcomes for program group and comparison group members, using standard statistical tests such as the t-test. More formally, the analyses reported in Chapter 4 estimate ordinary least squares (OLS) regressions of the form,

$$Y_i = \alpha + \beta T_i + \sum \varphi_i X_i + \varepsilon_i$$

where Y_i represents an outcome such as credits earned of individual i, T_i is an indicator variable equal to 1 for students randomly assigned to the MSSI program group, X_i represents a vector of baseline characteristics, also called covariates, that are included in the model to address the imbalance in baseline covariates reported in Chapter 1 as well as to improve the precision of the estimates of β, ε_i is a random error term, and α, β, and φ are coefficients to be estimated. The regression employs weights equal to the inverse of the probability of selection to account for the variation in the random assignment ratio in the sampling design. The coefficient of interest is β, as it represents the effect of assignment to the program group on the outcome of interest. β is an unbiased estimator of the "intent to treat" effect. Note that "intent to treat" estimates the effect of assigning a student to the MSSI program group on the outcome in question. That is, it estimates the gains that one can realistically expect to observe from implementing the program, since MDRC cannot completely control whether students take advantage of all the intervention components. It does not necessarily represent the effect of the program for those who do participate in the program.

APPENDIX TABLE A.1 Baseline Characteristics of the MoCCA Study Sample

Characteristic	Full Sample	Program Group	Control Group	P-Value
Demographics (%)				
Male	100.0	100.0	100.0	
Age[a]				0.703
18 and under	41.3	42.9	39.6	
19 to 24	42.3	39.2	45.5	
25 and over	16.4	17.9	14.8	
Average age (years)	21.6	21.7	21.4	0.596
Race and ethnicity[a]				0.064
American Indian or Alaskan Native	0.3	0.3	0.3	
Asian or Pacific Islander	3.8	4.8	2.8	
Black, non-Hispanic	83.0	81.2	84.9	
Hispanic	8.5	9.3	7.8	
Multiracial	2.8	3.1	2.6	
White	0.0	0.0	0.0	
Other	1.5	1.3	1.6	

(continued)

APPENDIX TABLE A.1 (continued)

Characteristic	Full Sample	Program Group	Control Group	P-Value
Birthplace[a]				0.183
United States	84.2	80.3	88.0	
Africa	7.9	10.3	5.6	
Caribbean	1.5	1.9	1.0	
South or Central America	1.8	1.9	1.7	
Other	4.7	5.6	3.8	
Residence[a,b]				0.181
Baltimore City	26.7	27.2	26.3	
Baltimore County	65.1	62.4	67.7	
Other County	8.2	10.4	6.0	
English is primary household language	72.0	65.2	78.8	0.001
Married	5.2	6.8	3.6	0.114
Number of children[a]				0.064
0	89.6	89.6	89.7	
1	3.7	1.9	5.5	
2	2.9	3.7	2.2	
3 or more	3.8	4.9	2.7	
Nontraditional student[c]	34.4	37.7	31.1	0.117
Education (%)				
Highest grade completed[a]				0.835
10th grade or lower	3.5	3.0	4.0	
11th grade	2.4	2.5	2.3	
12th grade	94.1	94.5	93.7	
Highest degree attained[a]				0.894
GED	4.7	4.0	5.4	
High school diploma	91.0	91.8	90.2	
2-year degree/certificate	2.9	2.9	3.0	
Bachelor's degree or higher	1.3	1.3	1.4	
First in immediate family to attend college	31.1	32.1	30.1	0.621
Reason for enrolling in college[a]				0.444
Complete a certificate program	6.5	6.6	6.4	
Obtain an associate degree	26.0	27.5	24.4	
Transfer to a 4-year college/university	58.3	55.6	60.9	
Obtain/update job skills	7.2	8.8	5.6	
Other	1.9	1.3	2.6	

(continued)

APPENDIX TABLE A.1 (continued)

Characteristic	Full Sample	Program Group	Control Group	P-Value
Expected credits				0.863
Fewer than 6	8.7	8.9	8.6	
6 - 11 (part time)	38.3	40.0	36.7	
12 or more (full time)	48.1	46.4	49.9	
Financial (%)				
Currently employed	59.5	61.9	57.1	0.269
Among those currently employed, hours worked per week:[a]				
Full time (more than 30 hours)	*40.7*	*42.4*	*38.8*	
Part time (30 hours or less)	*59.3*	*57.6*	*61.2*	
Source of education funding				
Employment while attending college	37.0	38.7	35.2	0.429
Employment during breaks	10.3	13.0	7.5	0.044
Educational grants	43.7	47.7	39.6	0.070
Scholarships	25.9	31.6	20.1	0.003
Student loans	30.1	32.2	28.0	0.306
Credit cards	2.4	2.5	2.4	0.907
Income from spouse/partner	0.6	0.8	0.3	0.432
Parents/relatives	32.0	30.9	33.2	0.580
Personal savings	7.1	5.8	8.3	0.266
Other	3.3	2.3	4.4	0.177
Parents pay more than 50% of educational expenses	29.4	28.7	30.1	0.744
Grit score (1-5)	3.8	3.8	3.8	0.254
Sample size	514	304	210	

SOURCE: MDRC calculations from the MoCCA Study's Baseline Information Form (BIF).

NOTES: To assess differences between the research groups, chi-square tests were used for categorical variables and two-tailed t-tests were used for continuous variables.

Characteristics shown in italics are nonexperimental. Statistical tests are not performed for these characteristics.

The grit score is based on the eight-item GRIT-S scale (Duckworth, Peterson, Matthews, and Kelly, 2007; Duckworth and Quinn, 2009).

[a]Distributions may not add to 100 percent because of rounding.

[b]Because Baltimore City is not part of Baltimore County, these two categories are mutually exclusive.

[c]Nontraditional students are defined as those who were 24 or older, worked 31 or more hours per week, had children, or did not receive a high school diploma at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics. Students are considered to be missing data in the nontraditional category if they were missing data on two or more of these variables and have no other nontraditional characteristic; however, since less than 1 percent of the study sample were missing data, this percentage is not listed in the table.

APPENDIX TABLE A.2 Baseline Characteristics of the MoCCA Sample, by Pandemic Period

Characteristic (%)	Pre-Pandemic (Cohorts 1-3)	Pandemic (Cohorts 4-6)
Demographics		
Male	100.0	100.0
Age[a]		
18 and under	51.7	30.9
19 to 24	39.6	45.1
25 and over	8.6	24.0
Average age (years)	19.9	23.2
Race and ethnicity[a]		
American Indian or Alaskan Native	0.7	0.0
Asian or Pacific Islander	2.6	5.0
Black, non-Hispanic	87.0	79.0
Hispanic	4.4	12.7
Multiracial	3.6	2.0
White	0.0	0.0
Other	1.7	1.2
Birthplace[a]		
United States	85.7	82.7
Africa	7.1	8.7
Caribbean	1.7	1.2
South or Central America	1.4	2.1
Other	4.1	5.3
Education		
Highest degree attained[a]		
GED	3.4	6.1
High school diploma	95.5	86.5
2-year degree/certificate	0.7	5.2
Bachelor's degree or higher	0.5	2.2
First in immediate family to attend college	31.2	31.1
Sample size	256	258

SOURCE: MDRC calculations from the MoCCA Study's Baseline Information Form (BIF).

NOTES: Cohort 3 enrolled in the study in spring 2020, before the COVID-19 pandemic affected in-person instruction, and ended its first semester during the pandemic. It is included in the pre-pandemic cohort for the baseline analysis and in the pandemic cohort for all follow-up analysis.

Characteristics shown in italics are nonexperimental. Statistical tests are not performed for these characteristics.

[a]Distributions may not add to 100 percent because of rounding.

APPENDIX TABLE A.3 Student Grit Scale at Baseline

Grit Scale Item Response (%)	Full Sample	Program Group	Control Group	P-Value
New ideas and projects sometimes distract me from previous ones				0.148
Very much like me	4.6	3.7	5.4	
Mostly like me	11.8	10.6	12.9	
Somewhat like me	31.5	28.6	34.4	
Not much like me	26.3	30.0	22.6	
Not like me at all	25.4	26.1	24.7	
Setbacks don't discourage me				0.109
Very much like me	22.1	21.2	22.9	
Mostly like me	15.8	16.2	15.4	
Somewhat like me	22.8	24.1	21.5	
Not much like me	19.3	15.2	23.5	
Not like me at all	19.7	22.8	16.6	
I have been obsessed with a certain idea or project for a short time but later lost interest				0.082
Very much like me	6.7	6.3	7.0	
Mostly like me	12.1	11.0	13.2	
Somewhat like me	27.1	24.0	30.1	
Not much like me	24.3	24.4	24.2	
Not like me at all	28.8	32.0	25.6	
I am a hard worker				0.415
Very much like me	67.2	68.9	65.5	
Mostly like me	21.4	20.2	22.6	
Somewhat like me	9.8	9.2	10.3	
Not much like me	1.1	0.6	1.6	
Not like me at all	0.3	0.5	0.0	
I often set a goal but later choose to pursue a different one				0.963
Very much like me	9.0	10.0	8.1	
Mostly like me	10.6	11.2	10.0	
Somewhat like me	25.2	24.2	26.3	
Not much like me	27.7	27.6	27.8	
Not like me at all	26.8	26.4	27.2	

(continued)

APPENDIX TABLE A.3 (continued)

Grit Scale Item Response (%)	Full Sample	Program Group	Control Group	P-Value
I have difficulty maintaining my focus on projects that take more than a few months to complete				0.395
Very much like me	8.2	7.5	8.9	
Mostly like me	9.6	10.7	8.5	
Somewhat like me	26.7	28.5	25.0	
Not much like me	25.7	22.6	28.9	
Not like me at all	27.8	29.5	26.0	
I finish whatever I begin				0.198
Very much like me	47.4	50.2	44.6	
Mostly like me	31.2	28.4	34.1	
Somewhat like me	17.3	16.1	18.5	
Not much like me	2.3	3.1	1.6	
Not like me at all	1.1	1.8	0.3	
I am diligent				0.270
Very much like me	49.6	52.9	46.2	
Mostly like me	32.2	29.0	35.3	
Somewhat like me	15.8	14.8	16.8	
Not much like me	1.1	1.8	0.3	
Not like me at all	0.5	0.3	0.7	
Sample size	514	304	210	

SOURCE: MDRC calculations from the MoCCA Study's Baseline Information Form.

NOTES: Items are based on the eight-item GRIT-S scale (Duckworth, Peterson, Matthews and Kelly, 2007; Duckworth and Quinn, 2009). Distributions may not add to 100 percent because of rounding.

To assess differences between the research groups, chi-square tests were used for categorical variables and two-tailed t-tests were used for continuous variables.

APPENDIX

B

Supplemental Tables for Chapter 2

APPENDIX TABLE B.1 Supports Offered to Students in MSSI Versus Usual College Services: Main Differences

Supports	MSSI	Usual College Services
Academic Skills Enrichment	• **ACDV-MSSI** is a culturally contextualized section of the standard ACDV course that is limited to students in the MSSI program. In contrast with the standard ACDV course, instructors are men of color and have gone through training on teaching the MSSI version of the course. Course content and discussions cover the same topics as the standard section of the course but contextualize the assignments and class discussions for males of color.	• Standard **ACDV course** covered study skills, time management skills, college and career exploration, and college services available to support students. • The **Writing Center** and **tutoring** are available for students seeking extra support. • **Academic coaches** are assigned to students who have twice failed certain courses (developmental education and some math/science). • **The honors program** offers special courses, smaller classes, dedicated advisors, and a lounge space to qualifying students.
Success Mentors	• **Success Mentors,** like the students they mentor, identify as men of color. They work part time for MSSI. Mentors are supposed to meet three times per semester with their mentees to discuss academics, professional goals, and their personal lives. Success Mentors can connect students with services on campus that may help them.	• **Mentoring** is offered to certain segments of the student population, including first-generation college students, student athletes, and students in certain scholarship programs like Baltimore Promise or Maryland Promise. Through the Francis Merritt scholarship program, students get proactive case management, career exploration, and development from their mentors.

(continued)

APPENDIX TABLE B.1 (continued)

Supports	MSSI	Usual College Services
Student Support Services	• Students received a $50 **stipend** for participation in each meeting with a Success Mentor, up to $150 per semester. Stipends were offered from summer 2019 to spring 2021 only. • **Connection/Warm Hand-Off to support services** available to all students by Success Mentors. Success Mentors referred students to a list of staff in various support services across campus.	• **Academic advising,** which can help students select courses, identify transfer options, and learn about program requirements, is not required but is offered through the Office of Student Development. There are 24 full-time academic advisors. Students are not assigned advisors and make appointments based on availability. • Several **student support programs**—which include components such as case management, tutoring, other academic support, and financial resources—are available to students who meet eligibility requirements (based on, for example, income or GPA). • **Career Services** offers resources for identifying career interests, searching for jobs, and creating cover letters and resumes. **Career coaches** help students research, explore, and navigate career plans. • CCBC operates a **First-Year Experience** program that all new students are encouraged, but not mandated, to participate in. The program orients new students to the college, orients students to support services, and runs social activities. It also includes peer mentoring. • **Success Navigators** address nonacademic barriers to student success such as food and housing insecurity, legal and financial assistance, and transportation. They also connect students with off-campus clinical counselors. Success Navigators follow up with students after connecting them with the service to learn whether they were able get the help they needed.

(continued)

APPENDIX TABLE B.1 (continued)

Supports	MSSI	Usual College Services
Leadership and Professional Development	• MSSI hosted monthly meetings on topics including goal setting, time management, and leadership, among other things. During the pandemic, they expanded this series to include weekly MSSI CARES calls. See Table 2.1 in Chapter 2 for more information on MSSI CARES. • MSSI organized a trip to the Smithsonian National Museum of African American History and Culture. • MSSI students were invited to participate in the Maryland Male Students of Color Summit.	• Students can apply to be student ambassadors for the First-Year Experience through the Office of Student Life, serve as a representative in the Student Government Association, participate in internships, obtain work-study positions, or join clubs and organizations on campus, such as athletic teams, interest clubs, or identity groups like the Black Student Union.
Community and Brotherhood	• MSSI offered community-building activities including cookouts and luncheons (pre-pandemic and after pandemic restrictions were eased), and community-building calls hosted on Zoom (starting when the school shifted to remote operations during the pandemic and continuing through the end of the study period). • During the study period, MSSI acquired a dedicated office with a lounge space for students to gather.	• The **Office of Intercultural Engagement** provides advocacy and programming to support the academic, professional, and personal success of CCBC community members, with an emphasis on underrepresented groups.

APPENDIX TABLE B.2 Program Group Participation in MSSI Activities

Outcome (%)	1st Semester	2nd Semester	Either Semester
Enrolled[a]	80.4	37.7	82.7
Among those enrolled			
ACDV-MSSI 101 course attendance[b]			
Never	5.2	---	---
Less than 1/3 of the time	26.4	---	---
1/3 to less than 2/3 of the time	26.2	---	---
2/3 of the time or more, but not all	28.6	---	---
Attended all classes	13.6	---	---
Number of mentoring appointments attended[b]			
0	31.0	63.3	31.5
1	18.5	9.4	18.4
2	13.8	6.5	11.7
3 or more	36.7	20.7	38.4
Enrolled and attended at least one mentoring session			
Topics covered in mentoring session[c]			
Academics	68.7	36.7	67.8
Campus climate	20.8	15.3	21.7
Career planning	27.3	12.6	28.5
Family issues	12.9	10.8	17.0
Financial difficulties	18.3	12.3	21.5
Mental health	10.9	10.7	15.4
Tutoring provided	23.6	10.4	24.4
Work-life balance	44.4	31.4	47.5
Sample size			304

SOURCE: Program data and transcript records received from CCBC.

NOTES: Sample represents 304 program group students. These data are reported through an MIS system, and the reported ACDV attendance is generally lower than the transcript enrollment. The data may underestimate attendance, which was not tracked as closely as Success Mentor visits.

Dashes (--) indicate that the measure is not applicable for a particular time frame.

[a]The enrollment estimates in this table are not adjusted for slight differences in background characteristics between the program group and control group at the time of study enrollment. As a result, the entries are slightly different than the estimates shown in Chapter 4, which are adjusted for baseline characteristics.

[b]Distributions may not add to 100 percent because of rounding.

[c]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.3 Program Group Participation in MSSI Activities in the Pre-Pandemic Period

Outcome (%)	1st Semester	2nd Semester	Either Semester
Enrolled[a]	89.2	64.5	91.6
Among those enrolled			
ACDV-MSSI 101 course attendance[b]			
Never	6.7	---	---
Less than 1/3 of the time	22.5	---	---
1/3 to less than 2/3 of the time	20.0	---	---
2/3 of the time or more, but not all	34.5	---	---
Attended all classes	16.4	---	---
Number of mentoring appointments attended[b]			
0	20.6	59.9	20.9
1	16.5	4.3	17.0
2	12.9	7.4	10.9
3 or more	49.9	28.4	51.2
Enrolled and attended at least one mentoring session			
Topics covered in mentoring session[c]			
Academics	79.4	40.1	78.2
Campus climate	31.2	20.3	33.0
Career planning	30.8	14.2	33.0
Family issues	13.8	14.8	22.2
Financial difficulties	25.5	14.8	30.0
Mental health	8.5	14.8	18.7
Tutoring provided	32.6	14.2	34.3
Work-life balance	50.4	38.9	56.1
Sample size			92

SOURCE: Program data and transcript records received from CCBC.

NOTES: Sample represents 92 program group students during the pre-pandemic period. These data are reported through an MIS system, and the reported ACDV attendance is generally lower than the transcript enrollment. The data may underestimate attendance, which was not tracked as closely as Success Mentor visits.

Dashes (--) indicate that the measure is not applicable for a particular time frame.

[a]The enrollment estimates in this table are not adjusted for slight differences in background characteristics between the program group and control group at the time of study enrollment. As a result, the entries are slightly different than the estimates shown in Chapter 4, which are adjusted for baseline characteristics.

[b]Distributions may not add to 100 percent because of rounding.

[c]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.4 Program Group Participation in MSSI Activities in the Pandemic Period

Outcome	1st Semester	2nd Semester	Either Semester
Enrolled[a]	74.5	20.0	76.8
Among those enrolled			
ACDV-MSSI 101 course attendance[b]			
Never	0.0	---	---
Less than 1/3 of the time	40.3	---	---
1/3 to less than 2/3 of the time	48.2	---	---
2/3 of the time or more, but not all	7.6	---	---
Attended all classes	3.8	---	---
Number of mentoring appointments attended[b]			
0	39.1	70.7	39.8
1	20.1	20.2	19.5
2	14.6	4.6	12.4
3 or more	26.2	4.6	28.3
Enrolled and attended at least one mentoring session			
Topics covered in mentoring session[c]			
Academics	60.3	29.3	59.7
Campus climate	12.7	4.6	12.9
Career planning	24.5	9.1	25.0
Family issues	12.2	2.3	13.0
Financial difficulties	12.7	6.9	14.8
Mental health	12.7	2.1	12.9
Tutoring provided	16.5	2.3	16.6
Work-life balance	39.7	15.7	40.8
Sample size			212

SOURCE: Program data and transcript records received from CCBC.

NOTES: Sample represents 212 program group students during the pandemic period. These data are reported through an MIS system, and the reported ACDV attendance is generally lower than the transcript enrollment. The data may underestimate attendance, which was not tracked as closely as Success Mentor visits.

Dashes (--) indicate that the measure is not applicable for a particular time frame.

[a]The enrollment estimates in this table are not adjusted for slight differences in background characteristics between the program group and control group at the time of study enrollment. As a result, the entries are slightly different than the estimates shown in Chapter 4, which are adjusted for baseline characteristics.

[b]Distributions may not add to 100 percent because of rounding.

[c]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.5 Program Group Participation in MSSI Program Activities, Non-First-Generation Students

Outcome	1st Semester	2nd Semester	Either Semester
Enrolled[a]	80.7	33.6	82.6
Among those enrolled			
ACDV-MSSI 101 course attendance[b]			
Never	4.9	---	---
Less than 1/3 of the time	23.2	---	---
1/3 to less than 2/3 of the time	23.6	---	---
2/3 of the time or more, but not all	37.0	---	---
Attended all classes	11.3	---	---
Number of mentoring appointments attended[b]			
0	30.9	64.4	30.7
1	20.8	10.9	21.5
2	13.7	7.7	11.6
3 or more	34.6	17.1	36.2
Enrolled and attended at least one mentoring session			
Topics covered in mentoring session[c]			
Academics	68.6	35.6	68.2
Campus climate	17.9	16.2	19.8
Career planning	26.4	12.5	27.5
Family issues	12.4	8.5	14.4
Financial difficulties	16.8	9.8	18.6
Mental health	11.2	9.7	14.9
Tutoring provided	22.7	7.7	23.6
Work-life balance	41.6	31.9	44.5
Sample size			204

SOURCE: Program data and transcript records received from CCBC.

NOTES: Dashes (--) indicate that the measure is not applicable for a particular time frame.
[a]The enrollment estimates in this table are not adjusted for slight differences in background characteristics between the program and control groups at the time of study enrollment. As a result, the entries are slightly different than the estimates shown in Chapter 4, which are adjusted for baseline characteristics.
[b]Distributions may not add to 100 percent because of rounding.
[c]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.6 Program Group Participation in MSSI Program Activities, First-Generation Students

Outcome	1st Semester	2nd Semester	Either Semester
Enrolled[a]	79.9	44.0	83.4
Among those enrolled			
ACDV-MSSI 101 course attendance[b]			
Never	6.2	---	---
Less than 1/3 of the time	30.3	---	---
1/3 to less than 2/3 of the time	33.0	---	---
2/3 of the time or more, but not all	15.5	---	---
Attended all classes	14.9	---	---
Number of mentoring appointments attended[b]			
0	31.3	60.5	33.1
1	15.3	8.2	13.4
2	13.3	5.5	11.1
3 or more	40.2	25.9	42.4
Enrolled and attended at least one mentoring session			
Topics covered in mentoring session[c]			
Academics	68.7	39.5	66.9
Campus climate	28.7	15.8	27.5
Career planning	27.5	14.3	29.3
Family issues	13.1	15.8	21.9
Financial difficulties	19.4	17.8	25.3
Mental health	9.2	10.3	14.2
Tutoring provided	23.6	16.1	24.4
Work-life balance	48.3	31.2	52.0
Sample size			93

SOURCE: Program data and transcript records received from CCBC.

NOTES: Dashes (--) indicate that the measure is not applicable for a particular time frame.
[a]The enrollment estimates in this table are not adjusted for slight differences in background characteristics between the program and control groups at the time of study enrollment. As a result, the entries are slightly different than the estimates shown in Chapter 4, which are adjusted for baseline characteristics.
[b]Distributions may not add to 100 percent because of rounding.
[c]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.7 CCBC Policy Changes in Response to the COVID-19 Pandemic

Category	Policy Change
Student support services	• CCBC offered loaner laptops and WiFi hotspots to students through the Office of College and Community Outreach Services. • During the pandemic, CCBC gave students access to supports through a computer lab model enabling them to meet with a disability support counselor, academic coach, career counselor, or academic advisor, all from one spot (at home or at a computer lab on campus).
Grading	• The college altered grading for spring 2020: o I (Incomplete). Coursework could be completed in a timeframe specified by the college's Incomplete policy. o W (Withdrawal Without Penalty). Withdrawal date extended from mid-April to mid-May. Students who withdrew were offered an emergency financial aid grant to retake the course in the summer or fall semester. o Pass/Fail. Students had the option to convert their end-of-semester letter grade to Pass (if awarded A, B, C, or D).
Modes of instruction	• In spring 2020, CCBC offered few in-person courses, moving most online. • In fall 2020, CCBC expanded the number of modalities of course offerings to include online, blended online with some on-site, on-site, remote online with some scheduled time, simulcast with some on-site, and remote lecture with on-site lab.
Tuition and financial aid	• In May 2020, CCBC automatically awarded federal stimulus grants to students enrolled in spring semester classes, with a FAFSA on file, who were making satisfactory progress. Students who were eligible to complete a FAFSA but did not were given a separate application. • Starting in fall 2020, CCBC began offering free tuition to qualifying students.
Assessment and placement	• Since the pandemic, CCBC has used an at-home placement test in math and self-directed placement—where students select their course-level based on information from the college on course content and policies—in English.

APPENDIX TABLE B.8 Student Participation in CCBC Services, Full Sample

Activity	Program Group	Control Group
Academic Advising		
Met with an advisor or mentor (%)	93.0	88.0
Average meeting length, among students who met with advisors or mentors[a] (%)		
<= 30 minutes	87.8	77.2
31 minutes - 1 hour	31.0	27.9
> 1 hour	1.4	3.6
Met with an advisor (%)	89.5	84.6
Number of meetings attended[a] (%)		
0	10.5	15.4
1-2	23.5	41.8
3-4	38.4	25.5
5 or more	27.6	17.2
Average meeting length, among students who met with advisors[a] (%)		
<= 30 minutes	79.8	75.9
31 minutes - 1 hour	19.5	22.8
> 1 hour	0.8	1.3
Met with same advisor for each meeting (%)	56.1	36.9
Mentoring		
Met with a mentor (%)	74.7	37.2
Number of meetings[a] (%)		
0	25.3	62.8
1-2	26.2	20.6
3-4	28.7	11.4
5 or more	19.8	5.2
Average meeting length, among students who met with mentors (%)		
<= 30 minutes	74.1	59.6
31 minutes - 1 hour	24.5	35.6
> 1 hour	1.4	4.8
Quality of advising and mentoring (1 = strongly disagree, 4 = strongly agree)		
Generally satisfied with advising/mentoring received	3.2	3.1
Received accurate information about courses, programs, and requirements	3.3	3.3
Kept informed about deadlines (drop/add, withdrawal, registration, etc.)	3.2	3.1
Available when needed	3.3	3.3

(continued)

APPENDIX TABLE B.8 (continued)

Activity	Program Group	Control Group
Tutoring		
Attended any tutoring session (%)	38.3	39.8
Number of sessions attended[a] (%)		
0	61.7	60.2
1-2	24.2	25.4
3-4	8.2	7.7
5 or more	5.9	6.6
Workshops and information sessions		
Attended any workshop or information session (%)	52.0	30.3
Number of events attended[a] (%)		
0	48.0	69.7
1-2	32.2	22.0
3-4	14.6	6.8
5 or more	5.1	1.5
Honors and academic merit programs		
Any honors/merit programs (%)	20.3	14.2
Number of courses or programs[a] (%)		
0	79.7	85.8
1	10.7	10.5
2	7.8	3.0
3 or more	1.9	0.7
Sample size (total = 264)	166	98

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively. Data in this table are self-reported.

[a]Distributions may not add to 100 percent because of rounding.

APPENDIX TABLE B.9 Student Participation in CCBC Services, by Pandemic Period

	Pre-Pandemic (Cohorts 1-2)		Pandemic (Cohorts 3-6)	
Activity	**Program Group**	**Control Group**	**Program Group**	**Control Group**
Academic advising				
Met with an advisor or mentor (%)	98.3	95.9	90.0	81.7
Average meeting length, among students who met with advisors or mentors[a] (%)				
<= 30 minutes	84.6	83.4	89.4	73.6
31 minutes - 1 hour	30.0	23.9	31.3	32.0
> 1 hour	0.0	2.7	2.5	4.0
Met with an advisor (%)	98.2	94.3	82.9	79.2
Number of meetings attended[a] (%)				
0	1.8	5.7	17.1	20.8
1-2	18.1	31.9	26.0	51.7
3-4	38.7	40.3	38.8	14.9
5 or more	41.4	22.1	18.1	12.7
Average meeting length, among students who met with advisors[a] (%)				
<= 30 minutes	80.7	83.0	78.4	71.1
31 minutes - 1 hour	19.3	17.0	20.2	27.1
> 1 hour	0.0	0.0	1.3	1.9
Met with same advisor for each meeting (%)	68.3	31.3	48.1	39.0
Mentoring				
Met with a mentor (%)	83.5	58.4	67.9	25.9
Number of meetings[a] (%)				
0	16.5	41.6	32.1	74.1
1-2	19.5	26.5	29.5	19.7
3-4	37.0	10.8	24.8	7.6
5 or more	27.1	21.1	13.6	-1.4
Average meeting length, among students who met with mentors (%)				
<= 30 minutes	76.3	60.0	74.3	52.1
31 minutes - 1 hour	23.7	33.0	23.4	44.3
> 1 hour	0.1	7.0	2.3	3.6

(continued)

APPENDIX TABLE B.9 (continued)

Activity	Pre-Pandemic (Cohorts 1-2)		Pandemic (Cohorts 3-6)	
	Program Group	Control Group	Program Group	Control Group
Quality of advising and mentoring (1=strongly disagree, 4=strongly agree)				
Generally satisfied with advising/mentoring received	3.3	3.2	3.1	3.0
Received accurate information about courses, programs, and Requirements	3.2	3.3	3.3	3.2
Kept informed about deadlines (drop/add, withdrawal, registration, etc.)	3.2	3.0	3.1	3.1
Available when needed	3.4	3.4	3.2	3.3
Tutoring				
Attended any tutoring session (%)	41.0	50.2	34.8	33.0
Number of sessions attended[a] (%)				
0	59.0	49.8	65.2	67.0
1-2	24.3	34.3	21.9	20.5
3-4	9.4	5.3	7.1	10.0
5 or more	7.4	10.6	5.8	2.5
Workshops and information sessions				
Attended any workshop or information session (%)	62.7	46.8	45.3	18.7
Number of events attended[a] (%)				
0	37.3	53.2	54.7	81.3
1-2	39.1	33.6	28.1	14.3
3-4	17.3	13.7	12.9	1.0
5 or more	6.3	NR	4.3	3.4
Honors and academic merit programs				
Any honors/merit programs (%)	17.4	15.8	21.1	14.5
Number of courses or programs[a] (%)				
0	82.6	84.2	78.9	85.5
1	4.7	10.3	13.4	12.6
2	11.1	3.8	6.0	1.7
3 or more	1.7	1.7	1.7	0.2
Sample size (total = 264)	56	53	110	45

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program group and control group were 54 and 48 percent, respectively. Data in this table are self-reported.

NR = not reported due to a small number of responses.

[a]Distributions may not add to 100 percent because of rounding.

APPENDIX TABLE B.10 Discussion Topics with Advisors and Mentors, by Pandemic Period

Activity	Pre-Pandemic (Cohorts 1-2)		Pandemic (Cohorts 3-6)	
	Program Group	Control Group	Program Group	Control Group
Discussion topics with advisors[a] (%)				
Academic goals	77.2	70.6	76.4	63.1
Academic progress	77.9	62.7	61.4	51.7
Course selection	72.0	76.2	66.4	73.7
Major	79.1	62.7	54.7	50.9
Requirements for graduation	29.8	39.0	34.0	30.7
Internships	16.6	10.8	18.1	6.1
Job opportunities	43.3	14.0	22.1	10.1
Career planning	43.1	26.3	23.9	29.2
College policies (transfer credit policies, probation, and drop/add policies)	43.1	38.6	29.4	19.9
College services (financial aid, tutoring, and counseling)	56.2	48.8	41.6	17.4
Personal matters	41.6	24.5	25.5	8.7
Discussion topics with mentors[a] (%)				
Academic goals	82.2	81.2	75.5	39.5
Academic progress	78.5	61.8	76.6	77.9
Course selection	62.2	56.1	50.2	51.3
Major	64.9	62.2	55.6	53.7
Requirements for graduation	34.8	42.5	29.4	9.8
Internships	18.0	17.7	22.9	7.5
Job opportunities	25.9	31.8	28.2	20.5
Career planning	48.5	30.3	32.2	29.1
College policies (transfer credit policies, probation, and drop/add policies)	48.2	19.3	30.7	27.6
College services (financial aid, tutoring, and counseling)	57.3	51.3	50.1	36.3
Personal matters	41.4	37.8	41.8	19.3
Sample size (total = 264)	56	53	110	45

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively. Data in this table are self-reported.

[a]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE B.11 Student Participation in CCBC Services, by First-Generation Status

Activity	First-Generation Student		Non-First-Generation Student	
	Program Group	Control Group	Program Group	Control Group
Academic advising				
Met with an advisor or mentor (%)	89.5	84.9	94.0	89.0
Average meeting length, among students who met with advisors or mentors[a] (%)				
<= 30 minutes	88.4	76.1	88.4	77.3
31 minutes - 1 hour	38.1	38.0	27.0	23.3
> 1 hour	0.0	0.0	1.7	5.7
Met with an advisor (%)	87.4	80.0	90.0	86.0
Number of meetings attended[a] (%)				
0	12.6	20.0	10.0	14.0
1-2	19.7	48.3	25.4	39.3
3-4	42.1	10.1	40.6	29.9
5 or more	25.5	21.6	24.0	16.8
Average meeting length, among students who met with advisors[a] (%)				
<= 30 minutes	80.2	74.4	79.0	78.2
31 minutes - 1 hour	19.8	25.6	20.2	19.6
> 1 hour	0.0	0.0	0.8	2.1
Met with same advisor for each meeting (%)	54.8	34.7	52.7	39.8
Mentoring				
Met with a mentor (%)	75.9	45.8	72.3	33.6
Number of meetings[a] (%)				
0	24.1	54.2	27.7	66.4
1-2	18.4	31.9	28.8	17.3
3-4	33.5	10.1	27.5	11.8
5 or more	24.0	3.8	16.1	4.5
Average meeting length, among students who met with mentors[a] (%)				
<= 30 minutes	62.1	65.4	81.8	59.9
31 minutes - 1 hour	37.9	34.6	16.0	32.4
> 1 hour	0.0	0.0	2.2	7.7

(continued)

APPENDIX TABLE B.11 (continued)

Activity	First-Generation Student		Non-First-Generation Student	
	Program Group	Control Group	Program Group	Control Group
Quality of advising and mentoring (1=strongly disagree, 4=strongly agree)				
Generally satisfied with advising/mentoring received	3.3	3.0	3.3	3.1
Received accurate information about courses, programs, and Requirements	3.4	3.1	3.3	3.3
Kept informed about deadlines (drop/add, withdrawal, registration, etc.)	3.3	3.0	3.2	3.0
Available when needed	3.4	3.1	3.3	3.4
Tutoring				
Attended any tutoring session (%)	29.8	39.0	38.8	42.0
Number of sessions attended[a] (%)				
0	70.2	61.0	61.2	58.0
1-2	20.9	29.6	23.9	24.7
3-4	3.2	4.0	10.0	8.8
5 or more	5.8	5.4	4.9	8.6
Workshops and information sessions				
Attended any workshop or information session (%)	47.6	26.3	52.6	32.9
Number of events attended[a] (%)				
0	52.4	73.7	47.4	67.1
1-2	35.2	21.2	30.0	23.0
3-4	9.4	4.4	16.8	7.9
5 or more	3.1	0.8	5.8	2.0
Honors and academic merit programs				
Any honors/merit programs (%)	21.0	11.3	21.1	15.2
Number of courses or programs[a] (%)				
0	79.0	88.7	78.9	84.8
1	15.1	7.7	9.1	11.8
2	5.9	3.6	9.1	2.3
3 or more	0.0	0.0	2.9	1.0
Sample size (total = 257)	51	31	111	64

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively. Data in this table are self-reported.

[a]Distributions may not add to 100 percent because of rounding.

APPENDIX TABLE B.12 Discussion Topics with Advisors and Mentors, by First-Generation Status

Activity	First-Generation Student		Non-First-Generation Student	
	Program Group	Control Group	Program Group	Control Group
Discussion topics with advisors[a] (%)				
Academic goals	84.2	63.7	75.8	63.7
Academic progress	77.4	59.2	63.9	59.2
Course selection	72.7	79.1	67.0	72.3
Major	74.0	76.2	59.8	50.0
Requirements for graduation	34.3	38.3	32.4	30.0
Internships	8.7	7.2	17.0	13.0
Job opportunities	28.2	4.5	33.1	9.9
Career planning	23.5	17.5	34.3	33.0
College policies (transfer credit policies, probation, and drop/add policies)	39.4	40.1	34.2	24.1
College services (financial aid, tutoring, and counseling)	61.5	33.7	42.1	29.4
Personal matters	45.2	21.2	29.6	11.2
Discussion topics with mentors[a] (%)				
Academic goals	83.7	58.6	76.7	62.6
Academic progress	90.2	85.4	69.1	67.1
Course selection	57.6	32.7	60.6	45.0
Major	64.5	21.4	61.4	72.0
Requirements for graduation	44.8	1.7	29.4	29.7
Internships	19.7	17.9	21.0	7.5
Job opportunities	33.2	32.0	25.3	21.2
Career planning	42.9	28.0	36.5	35.4
College policies (transfer credit policies, probation, and drop/add policies)	49.0	23.3	35.1	19.8
College services (financial aid, tutoring, and counseling)	66.0	39.2	48.5	45.5
Personal matters	60.5	35.8	36.1	20.1
Sample size (total = 257)	51	31	111	64

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively. Data in this table are self-reported.

[a]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX

C

Supplemental Tables for Chapter 3

APPENDIX TABLE C.1 Self-Reported Social Networks, by Pandemic Period

Outcome	Pre-Pandemic (Cohorts 1-2)		Pandemic (Cohorts 3-6)	
	Program Group	Control Group	Program Group	Control Group
Number of discussion partners	3.5	2.4	2.3	1.9
Among those with at least one discussion partner				
At least one discussion partner is male (%)	91.1	90.5	88.1	83.6
Proportion of discussion partners who are male (%)	65.0	62.7	59.4	49.7
At least one discussion partner is[a] (%)				
Spouse or romantic partner	8.6	7.5	12.0	9.6
Other family member or relative	54.3	37.5	49.2	60.1
Classmate	34.3	30.0	23.0	28.2
Professor	48.6	30.0	33.8	50.7
Teaching assistant	2.9	0.0	4.8	0.0
Athletic coach	2.9	10.0	1.1	0.0
Mentor or other coach	37.1	12.5	26.6	16.6
Academic advisor	17.1	15.0	19.3	17.6
Pastor	2.9	0.0	4.8	6.9
Friend	57.1	57.5	41.0	42.2
Other relationship	0.0	7.5	4.9	9.7
Proportion of discussion partners who are[a] (%)				
Spouse or romantic partner	2.1	1.8	5.0	5.7
Other family member or relative	26.7	23.5	34.2	37.1
Classmate	25.0	16.0	15.2	13.2
Professor	18.1	19.6	17.6	24.0
Teaching assistant	1.4	0.0	1.8	0.0
Athletic coach	0.6	3.1	1.1	0.0
Mentor or other coach	15.9	7.9	12.8	3.6
Academic advisor	9.4	8.9	10.1	3.7
Pastor	0.6	0.0	1.9	1.4
Friend	27.8	39.2	24.1	17.6
Other relationship	0.0	4.0	2.3	1.9
Sample size (total = 264)	56	53	110	45

SOURCE: MDRC calculations from the MoCCA student survey.

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program and control groups were 54 and 48 percent, respectively.

Data in this table are self-reported.

[a]Distributions may not add to 100 percent because categories are not mutually exclusive.

APPENDIX TABLE C.2 Self-Reported Social Networks, by First-Generation Status

Outcome	First-Generation Student		Non-First-Generation Student	
	Program Group	Control Group	Program Group	Control Group
Number of discussion partners	2.6	2.6	2.9	1.8
Among those with at least one discussion partner				
At least one discussion partner is male (%)	89.6	91.7	88.4	80.9
Proportion of discussion partners who are male (%)	65.4	52.5	61.7	55.8
At least one discussion partner is a (%)				
Spouse or romantic partner	11.0	8.0	10.3	6.7
Other family member or relative	25.7	70.9	60.4	44.9
Classmate	28.4	16.7	30.4	25.2
Professor	57.6	45.5	34.9	22.3
Teaching assistant	0.0	0.0	6.6	NR
Athletic coach	NR	4.5	3.4	3.9
Mentor or other coach	32.5	23.4	29.2	5.1
Academic advisor	1.2	34.7	22.2	12.6
Pastor	0.0	0.0	6.7	6.0
Friend	35.4	42.4	53.6	49.2
Other relationship	5.7	16.1	1.6	6.8
Proportion of discussion partners who are (%)				
Spouse or romantic partner	5.7	1.3	3.6	3.7
Other family member or relative	13.6	44.9	39.2	23.7
Classmate	19.5	5.8	20.3	16.1
Professor	35.1	21.8	13.6	14.8
Teaching assistant	0.0	0.0	2.6	NR
Athletic coach	NR	2.4	1.8	0.6
Mentor or other coach	17.7	9.3	11.5	3.3
Academic advisor	4.7	9.0	10.9	8.2
Pastor	0.0	0.0	2.6	0.3
Friend	20.1	18.4	27.3	36.0
Other relationship	1.4	3.3	1.2	1.8
Sample size (total = 257)	51	31	111	64

SOURCE: MDRC calculations from the MoCCA student survey

NOTES: No statistical tests were performed due to low survey response rates. The overall response rate was 52 percent. The response rates among the program group and control group were 54 and 48 percent, respectively.

NR = not reported due to a small number of responses.

APPENDIX

D

Supplemental Tables for Chapter 4

APPENDIX TABLE D.1 Average Number of Hours Used by MSSI Staff, by Term

	Pre-Pandemic					Pandemic								
	2019 Hours		Average Hours		Time	2020 Hours		2021 Hours		Average Hours		Time	All	Time
Outcome	Spring	Fall	Weekly	Term	(%)	Spring	Fall	Spring	Fall	Weekly	Term	(%)	Terms	(%)
MSSI Program Coordinator														
Student engagement	---	11	11	126	44.7	---	9	2	2	4	50	10.5	402	20.1
Teaching	---	1	1	12	4.3	---	---	---	---	---	---	---	24	1.2
Administration	---	11	11	132	46.8	---	20	40	31	30	362	75.7	1,350	67.6
Other responsibilities	---	1	1	12	4.3	---	8	1	8	6	66	13.8	222	11.1
Research study	---	1	1	12	---	---	7	2	---	4	51	---	177	---
Total hours	---	25	25	294	---	---	43	45	41	44	529	---	2,175	---
Total hours (excluding research study)	---	24	24	282	100.0	---	37	43	41	40	478	100.0	1,998	100.0
MSSI Success Mentors														
Student engagement	38	15	26	316	32.0	33	31	34	---	33	391	62.5	1,805	46.9
Teaching	19	19	19	225	22.8	8	10	4	---	7	84	13.4	702	18.2
Administration	31	15	23	271	27.5	17	10	7	---	11	131	20.9	935	24.3
Other responsibilities	24	6	15	174	17.6	3	1	1	---	2	20	3.2	408	10.6
Research study	9	4	6	72	---	2	2	1	---	2	18	---	198	---
Total hours	119	58	88	1,058	---	62	54	46	---	54	644	---	4,048	---
Total hours (excluding research study)	110	54	82	986	100.0	60	52	45	---	52	626	100.0	3,850	100.0
Number of Success Mentors	5-7	5-7	5	---	---	4-6	5-6	2-4	3-5	5	---	---	5	---
Total hours per Success Mentor	24	12	18	212	---	12	11	9	---	11	129	---	810	---
Total hours per Success Mentor (excluding research study)	22	11	16	197	---	12	10	9	---	10	125	---	770	---

SOURCE: The pre-pandemic period is spring 2019 to fall 2019 and the pandemic period is from spring 2020 to fall 2021. MDRC calculations using time logs collected from administrators and Success Mentors spring 2019 through fall 2021.

NOTES: Percentage of time excludes the research study hours. Semester average assumes 12 working weeks each semester (each term at CCBC is 16 weeks). Success Mentors range from 5-6 spring 2019 to spring 2020 and 1-3 fall 2020 to fall 2021. Typical hours is the total sum of hours across Success Mentors. There was one Program Coordinator for the MSSI program.

Dashes (--) indicate that the measure is not applicable.

APPENDIX

E

Supplemental Tables Required for What Works Clearinghouse Review

APPENDIX TABLE E.1 Academic Outcomes for Semesters 1 and 2, Full Sample

Outcome	Program Group	SD	Control Group	SD	Impact		P-Value	Standard Error
Enrolled (%)								
1st semester	81.4	36.6	78.5	44.7	3.0		0.406	3.6
2nd semester	51.3	47.8	46.9	52.7	4.4		0.408	5.3
Enrolled in ACDV class (%)								
1st semester	66.4	44.0	56.1	54.7	10.3	**	0.012	4.1
2nd semester	7.2	24.1	10.7	33.7	-3.4		0.261	3.1
Passed ACDV class (%)								
1st semester	43.4	45.5	28.1	50.4	15.2	***	0.000	4.2
2nd semester	2.3	14.7	4.8	22.4	-2.5		0.227	2.1
Credits attempted[a]								
1st semester	7.5	4.9	7.8	6.1	-0.3		0.490	0.5
2nd semester	5.1	5.6	5.0	6.1	0.2		0.788	0.6
Credits earned								
1st semester	4.3	4.7	3.9	5.6	0.3		0.446	0.4
2nd semester	2.9	4.7	2.6	4.8	0.3		0.496	0.5
Received A, B, or C in all courses (%)								
1st semester	22.5	39.1	19.1	42.1	3.5		0.350	3.7
2nd semester	13.4	33.7	12.9	34.2	0.6		0.874	3.6
Excluding ACDV								
Credits attempted[a]								
1st semester	6.8	4.7	7.3	5.9	-0.4		0.357	0.4
2nd semester	5.1	5.6	4.9	6.1	0.2		0.744	0.6
Credits earned								
1st semester	3.8	4.4	3.6	5.4	0.2		0.657	0.4
2nd semester	2.9	4.7	2.5	4.7	0.4		0.462	0.5
Received A, B, or C in all courses (%)								
1st semester	29.5	42.3	23.5	46.5	6.0		0.142	4.1
2nd semester	13.4	33.7	12.9	34.2	0.6		0.874	3.6
Sample size (total = 514)	304		210					

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
SD = standard deviation. Second semester estimates do not include cohort 6.
[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.2 Academic Outcomes for Semesters 1 and 2, Cohorts 1 to 5

Outcome	Program Group	SD	Control Group	SD	Impact		P-Value	Standard Error
Enrolled (%)								
1st semester	82.1	37.8	80.7	40.7	1.4		0.739	4.1
2nd semester	51.3	47.8	46.9	52.7	4.4		0.408	5.3
Enrolled in ACDV class (%)								
1st semester	75.9	41.8	68.7	48.5	7.2		0.120	4.6
2nd semester	7.2	24.1	10.7	33.7	-3.4		0.261	3.1
Passed ACDV class (%)								
1st semester	51.0	47.8	34.0	49.9	17.0	***	0.001	5.2
2nd semester	2.3	14.7	4.8	22.4	-2.5		0.227	2.1
Credits attempted[a]								
1st semester	7.8	5.0	8.4	5.8	-0.6		0.288	0.6
2nd semester	5.1	5.6	5.0	6.1	0.2		0.788	0.6
Credits earned								
1st semester	4.3	4.8	4.1	5.5	0.2		0.731	0.5
2nd semester	2.9	4.7	2.6	4.8	0.3		0.496	0.5
Received A, B, or C in all courses (%)								
1st semester	20.7	39.8	16.7	37.7	4.1		0.337	4.2
2nd semester	13.4	33.7	12.9	34.2	0.6		0.874	3.6
Excluding ACDV								
Credits attempted[a]								
1st semester	7.0	4.8	7.7	5.6	-0.6		0.226	0.5
2nd semester	5.1	5.6	4.9	6.1	0.2		0.744	0.6
Credits earned								
1st semester	3.8	4.5	3.8	5.2	0.0		0.978	0.5
2nd semester	2.9	4.7	2.5	4.7	0.4		0.462	0.5
Received A, B, or C in all courses (%)								
1st semester	27.0	43.0	22.3	43.2	4.7		0.314	4.7
2nd semester	13.4	33.7	12.9	34.2	0.6		0.874	3.6
Sample size (total = 375)	206		169					

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

SD = standard deviation. Estimates in this table do not include cohort 6 because data are not available for two full semesters after study enrollment at the time of this report.

[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.3 Academic Outcomes for Semesters 1 and 2, Full Sample, by First-Generation Status

	Non-First-Generation student							First-Generation Student						
Outcome	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**
Enrolled (%)														
1st semester	81.8	36.1	82.5	40.8	-0.7	0.867	4.3	79.6	37.5	70.4	51.9	9.2	0.205	7.2
2nd semester	49.9	47.6	44.9	52.4	5.0	0.442	6.5	57.0	48.0	44.5	54.2	12.5	0.287	11.6
Enrolled in ACDV class (%)														
1st semester	65.5	44.1	62.4	52.5	3.2	0.535	5.1	68.2	44.0	39.8	56.6	28.4 ***	0.000	7.7
2nd semester	7.9	24.2	8.7	31.5	-0.8	0.831	3.7	8.8	25.0	13.5	40.0	-4.7	0.510	7.1
Passed ACDV class (%)														
1st semester	42.6	45.0	30.4	51.4	12.1 **	0.020	5.2	45.2	46.4	19.6	47.8	25.6 ***	0.004	8.7
2nd semester	2.4	14.1	4.7	22.5	-2.3	0.370	2.6	2.7	16.6	4.6	23.4	-1.9	0.677	4.5
Credits attempted[a]														
1st semester	7.4	4.7	8.2	5.9	-0.8	0.173	0.6	7.5	5.2	6.9	6.4	0.6	0.528	0.9
2nd semester	4.7	5.1	4.9	6.3	-0.2	0.761	0.8	5.7	6.2	4.7	5.6	1.0	0.473	1.4
Credits earned														
1st semester	4.0	4.4	4.1	5.7	0.0	0.957	0.6	4.5	5.1	3.6	5.4	1.0	0.290	0.9
2nd semester	2.4	4.0	2.5	5.0	-0.2	0.787	0.6	3.6	5.6	2.3	3.8	1.2	0.245	1.1
Received A, B, or C in all courses (%)														
1st semester	20.2	38.0	22.3	43.4	-2.1	0.646	4.6	25.3	40.9	12.6	39.1	12.7 *	0.077	7.1
2nd semester	13.4	32.5	11.4	33.3	2.0	0.649	4.5	13.2	35.4	15.1	36.3	-2.0	0.791	7.4
Excluding ACDV														
Credits attempted[a]														
1st semester	6.8	4.6	7.6	5.7	-0.8	0.149	0.6	6.8	5.0	6.5	6.1	0.3	0.732	0.9
2nd semester	4.6	5.1	4.8	6.2	-0.2	0.767	0.8	5.6	6.1	4.6	5.5	1.0	0.445	1.3
Credits earned														
1st semester	3.6	4.2	3.7	5.5	-0.2	0.774	0.5	4.1	4.8	3.4	5.2	0.7	0.414	0.9
2nd semester	2.3	4.0	2.5	4.9	-0.1	0.814	0.6	3.5	5.5	2.3	3.7	1.3	0.234	1.1

(continued)

APPENDIX TABLE E.3 (continued)

Outcome	Non-First-Generation student							First-Generation Student						
	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error
Received A, B, or C in all courses (%)														
1st semester	26.6	41.1	27.8	48.0	-1.2	0.816	5.0	32.0	43.6	15.2	42.7	16.9 **	0.030	7.7
2nd semester	13.4	32.5	11.4	33.3	2.0	0.649	4.5	13.2	35.4	15.1	36.3	-2.0	0.791	7.4
Sample size (total = 502)	204		146					93		59				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

SD = standard deviation. Second semester estimates do not include cohort 6. The outcomes of subgroup testing are not shown in the table but are identical to the entries (daggers) in the last column of Table 4.2.

[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.4 Academic Outcomes for Semesters 1 and 2, Cohorts 1 to 5, by First-Generation Status

	Non-First-Generation Student							First-Generation Student						
Outcome	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**
Enrolled (%)														
1st semester	81.7	38.1	83.0	38.0	-1.3	0.804	5.2	82.6	36.8	73.3	47.8	9.3	0.225	7.6
2nd semester	49.9	47.6	44.9	52.4	5.0	0.442	6.5	57.0	48.0	44.5	54.2	12.5	0.287	11.6
Enrolled in ACDV class (%)														
1st semester	76.2	41.4	74.3	45.4	1.9	0.742	5.8	74.4	42.5	54.3	53.8	20.0 **	0.039	9.5
2nd semester	7.9	24.2	8.7	31.5	-0.8	0.831	3.7	8.8	25.0	13.5	40.0	-4.7	0.510	7.1
Passed ACDV class (%)														
1st semester	50.3	47.6	36.3	50.6	14.0 **	0.031	6.5	53.0	48.3	23.3	47.9	29.6 **	0.011	11.5
2nd semester	2.4	14.1	4.7	22.5	-2.3	0.370	2.6	2.7	16.6	4.6	23.4	-1.9	0.677	4.5
Credits attempted[a]														
1st semester	7.6	4.9	8.6	5.7	-0.9	0.183	0.7	8.0	5.3	7.3	6.0	0.7	0.488	1.1
2nd semester	4.7	5.1	4.9	6.3	-0.2	0.761	0.8	5.7	6.2	4.7	5.6	1.0	0.473	1.4
Credits earned														
1st semester	3.9	4.5	4.1	5.6	-0.2	0.749	0.7	4.9	5.3	3.6	5.3	1.3	0.255	1.1
2nd semester	2.4	4.0	2.5	5.0	-0.2	0.787	0.6	3.6	5.6	2.3	3.8	1.2	0.245	1.1
Received A, B, or C in all courses (%)														
1st semester	16.0	36.1	17.3	38.0	-1.3	0.798	5.0	29.2	44.0	11.6	36.8	17.6 *	0.056	9.1
2nd semester	13.4	32.5	11.4	33.3	2.0	0.649	4.5	13.2	35.4	15.1	36.3	-2.0	0.791	7.4
Excluding ACDV														
Credits attempted[a]														
1st semester	6.9	4.7	7.8	5.5	-0.9	0.167	0.7	7.3	5.1	6.7	5.7	0.5	0.596	1.0
2nd semester	4.6	5.1	4.8	6.2	-0.2	0.767	0.8	5.6	6.1	4.6	5.5	1.0	0.445	1.3
Credits earned														
1st semester	3.4	4.2	3.8	5.3	-0.4	0.573	0.6	4.3	5.0	3.3	5.1	1.0	0.355	1.1
2nd semester	2.3	4.0	2.5	4.9	-0.1	0.814	0.6	3.5	5.5	2.3	3.7	1.3	0.234	1.1

(continued)

APPENDIX TABLE E.4 (continued)

Outcome	Non-First-Generation Student							First-Generation Student						
	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error
Received A, B, or C in all courses (%)														
1st semester	22.6	40.5	23.8	43.9	-1.2	0.832	5.8	33.9	45.7	16.3	41.7	17.5 *	0.072	9.6
2nd semester	13.4	32.5	11.4	33.3	2.0	0.649	4.5	13.2	35.4	15.1	36.3	-2.0	0.791	7.4
Sample size (total = 365)	131		120					69		45				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

SD = standard deviation. Estimates in this table do not include cohort 6 because data are not available for two full semesters after study enrollment at the time of this report. The outcomes of subgroup testing are not shown in the table but are identical to the entries (daggers) in the last column of Table 4.2.

[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.5 Academic Outcomes After the MSSI Program Year, Cohorts 1 to 3

Outcome	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error
Enrolled (%)							
3rd semester	40.4	50.9	32.9	45.2	7.5	0.234	6.3
4th semester	33.6	49.4	26.0	41.5	7.6	0.220	6.2
Credits attempted[a]							
3rd semester	3.8	5.7	3.6	5.1	0.2	0.721	0.7
4th semester	2.9	5.1	2.6	4.7	0.3	0.639	0.7
Credits earned							
3rd semester	2.4	4.6	1.9	3.6	0.5	0.318	0.5
4th semester	1.9	4.3	1.6	3.5	0.3	0.531	0.5
Received A, B, or C in all courses (%)							
3rd semester	10.5	33.4	8.6	25.4	1.9	0.639	4.0
4th semester	12.5	35.8	5.2	17.4	7.3 **	0.048	3.6
Graduated from CCBC within 4 semesters (%)	0.0	0.0	0.0	0.0	0.0	---	0.0
Transferred to another institution within 4 semesters (%)	7.0	25.3	7.9	27.3	-0.9	0.805	3.6
Received a credential within 4 semesters (%)	0.0	0.0	0.0	0.0	0.0	---	0.0
Received an associate's degree within 4 semesters (%)	0.0	0.0	0.0	0.0	0.0	---	0.0
Received a bachelor's degree or higher within 4 semesters (%)	0.0	0.0	0.0	0.0	0.0	---	0.0
Excluding ACDV							
Received A, B, or C in all courses (%)							
3rd semester	10.5	33.4	8.6	25.4	1.9	0.639	4.0
4th semester	12.3	35.8	6.0	19.0	6.3 *	0.092	3.7
Sample size (total = 256)	122		134				

SOURCES: MDRC calculations using transcript data from the Community College of Baltimore County and the National Student Clearinghouse.

NOTES: Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
SD = standard deviation.
Dashes (--) indicate that the measure is not applicable as neither program group students nor control group students graduated or received a credential within 4 semesters.
[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.6 Academic Outcomes for Semesters 1 and 2, Full Sample, by Pandemic Period

	Pre-Pandemic							Pandemic						
Outcome	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**		**P-Value**	**Standard Error**	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**		**P-Value**	**Standard Error**
Enrolled (%)																
1st semester	91.7	32.8	84.7	33.0	7.1		0.135	4.7	74.0	37.3	76.1	54.6	-2.1		0.684	5.2
2nd semester	63.6	50.7	49.8	47.9	13.8	*	0.063	7.4	34.8	41.8	47.7	61.4	-12.9		0.124	8.3
Enrolled in ACDV class (%)																
1st semester	85.0	40.3	78.6	38.4	6.4		0.244	5.5	53.7	42.8	42.4	62.7	11.3	*	0.059	5.9
2nd semester	8.3	29.3	11.8	30.8	-3.6		0.431	4.5	5.8	18.9	10.0	39.0	-4.1		0.353	4.4
Passed ACDV class (%)																
1st semester	63.0	51.1	38.9	46.6	24.1	***	0.001	7.3	28.8	39.0	23.7	53.4	5.1		0.328	5.2
2nd semester	2.4	16.2	4.5	20.1	-2.1		0.457	2.8	2.4	13.6	5.0	26.6	-2.6		0.447	3.4
Credits attempted[a]																
1st semester	9.4	5.1	8.7	5.0	0.7		0.361	0.7	6.2	4.5	7.4	7.1	-1.1	*	0.074	0.6
2nd semester	6.6	6.6	5.7	5.7	0.9		0.314	0.9	3.0	4.0	4.8	6.9	-1.8	**	0.040	0.9
Credits earned																
1st semester	5.8	5.4	4.7	4.9	1.1		0.151	0.8	3.1	4.0	3.6	6.3	-0.5		0.378	0.6
2nd semester	3.8	5.9	3.0	4.4	0.8		0.272	0.8	1.6	3.0	2.4	5.5	-0.8		0.235	0.7
Received A, B, or C in all courses (%)																
1st semester	26.4	48.5	17.7	34.6	8.7		0.164	6.2	18.1	34.0	22.2	49.4	-4.1		0.398	4.8
2nd semester	14.7	39.1	11.3	29.3	3.4		0.499	5.0	12.4	28.7	14.6	42.5	-2.2		0.696	5.6
Excluding ACDV																
Credits attempted[a]																
1st semester	8.5	4.9	7.9	4.8	0.6		0.369	0.7	5.7	4.4	6.9	6.8	-1.2	**	0.042	0.6
2nd semester	6.5	6.5	5.5	5.7	0.9		0.291	0.9	2.9	4.0	4.7	6.8	-1.8	**	0.043	0.9
Credits earned																
1st semester	5.1	5.1	4.3	4.7	0.8		0.236	0.7	2.8	3.9	3.4	6.1	-0.6		0.313	0.6
2nd semester	3.8	5.9	3.0	4.4	0.9		0.256	0.7	1.6	3.0	2.4	5.4	-0.8		0.247	0.7

(continued)

APPENDIX TABLE E.6 (continued)

Outcome	Pre-Pandemic							Pandemic						
	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error
Received A, B, or C in all courses (%)														
1st semester	31.8	50.5	26.0	40.8	5.8	0.401	6.9	26.1	38.0	24.2	52.4	1.8	0.724	5.2
2nd semester	14.7	39.1	11.3	29.3	3.4	0.499	5.0	12.4	28.7	14.6	42.5	-2.2	0.696	5.6
Sample size (total = 514)	92		112					212		98				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

SD = standard deviation. Second semester estimates do not include cohort 6. The outcomes of subgroup testing are not shown in the table, but are identical to the entries (daggers) in the last column of Table 4.4.

[a]Includes class withdrawals, dropped classes, and incompletes.

APPENDIX TABLE E.7 Academic Outcomes for Semesters 1 and 2, Cohorts 1 to 5, by Pandemic Period

	Pre-Pandemic							Pandemic						
Outcome	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**	**Program Group**	**SD**	**Control Group**	**SD**	**Impact**	**P-Value**	**Standard Error**
Enrolled (%)														
1st semester	91.7	32.8	84.7	33.0	7.1	0.135	4.7	70.8	39.7	76.4	52.2	-5.6	0.468	7.7
2nd semester	63.6	50.7	49.8	47.9	13.8 *	0.063	7.4	34.8	41.8	47.7	61.4	-12.9	0.124	8.3
Enrolled in ACDV class (%)														
1st semester	85.0	40.3	78.6	38.4	6.4	0.244	5.5	64.3	41.6	59.4	61.1	4.9	0.568	8.5
2nd semester	8.3	29.3	11.8	30.8	-3.6	0.431	4.5	5.8	18.9	10.0	39.0	-4.1	0.353	4.4
Passed ACDV class (%)														
1st semester	63.0	51.1	38.9	46.6	24.1 ***	0.001	7.3	34.5	41.8	31.7	55.6	2.8	0.726	8.0
2nd semester	2.4	16.2	4.5	20.1	-2.1	0.457	2.8	2.4	13.6	5.0	26.6	-2.6	0.447	3.4
Credits attempted[a]														
1st semester	9.4	5.1	8.7	5.0	0.7	0.361	0.7	6.0	4.5	7.9	7.2	-1.9 **	0.046	1.0
2nd semester	6.6	6.6	5.7	5.7	0.9	0.314	0.9	3.0	4.0	4.8	6.9	-1.8 **	0.040	0.9
Credits earned														
1st semester	5.8	5.4	4.7	4.9	1.1	0.151	0.8	2.5	3.7	3.6	6.4	-1.1	0.179	0.8
2nd semester	3.8	5.9	3.0	4.4	0.8	0.272	0.8	1.6	3.0	2.4	5.5	-0.8	0.235	0.7
Received A, B, or C in all courses (%)														
1st semester	26.4	48.5	17.7	34.6	8.7	0.164	6.2	11.0	29.3	18.0	43.3	-7.0	0.223	5.7
2nd semester	14.7	39.1	11.3	29.3	3.4	0.499	5.0	12.4	28.7	14.6	42.5	-2.2	0.696	5.6
Excluding ACDV														
Credits attempted[a]														
1st semester	8.5	4.9	7.9	4.8	0.6	0.369	0.7	5.4	4.3	7.3	6.9	-2.0 **	0.032	0.9
2nd semester	6.5	6.5	5.5	5.7	0.9	0.291	0.9	2.9	4.0	4.7	6.8	-1.8 **	0.043	0.9
Credits earned														
1st semester	5.1	5.1	4.3	4.7	0.8	0.236	0.7	2.1	3.4	3.3	6.2	-1.2	0.145	0.8
2nd semester	3.8	5.9	3.0	4.4	0.9	0.256	0.7	1.6	3.0	2.4	5.4	-0.8	0.247	0.7

(continued)

APPENDIX TABLE E.7 (continued)

Outcome	Pre-Pandemic							Pandemic						
	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error	Program Group	SD	Control Group	SD	Impact	P-Value	Standard Error
Received A, B, or C in all courses (%)														
1st semester	31.8	50.5	26.0	40.8	5.8	0.401	6.9	18.8	34.6	20.3	47.6	-1.5	0.825	6.7
2nd semester	14.7	39.1	11.3	29.3	3.4	0.499	5.0	12.4	28.7	14.6	42.5	-2.2	0.696	5.6
Sample size (total = 375)	92		112					114		57				

SOURCE: MDRC calculations using transcript data from the Community College of Baltimore County.

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

SD = standard deviation. Estimates in this table do not include cohort 6 because data are not available for two full semesters after study enrollment at the time of this report. The outcomes of subgroup testing are not shown in the table, but are identical to the entries (daggers) in the last column of Table 4.4.

[a]Includes class withdrawals, dropped classes, and incompletes.

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