# MOTOR CITY

# MOMENTUM

Three Years of the Detroit Promise Path Program for Community College Students



Alyssa Ratledge Colleen Sommo Dan Cullinan Rebekah O'Donoghue Marco Lepe and Jasmina Camo-Biogradlija

**MARCH 2021** 

# Motor City Momentum

# Three Years of the Detroit Promise Path Program for Community College Students

Alyssa Ratledge, Colleen Sommo, Dan Cullinan,
Rebekah O'Donoghue, Marco Lepe,
and
Jasmina Camo-Biogradlija
(Youth Policy Lab at the University of Michigan)



**MARCH 2021** 

# **FUNDERS**

Dissemination of MDRC publications is supported by the following organizations and individuals that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Arnold Ventures, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JPB Foundation, The Joyce Foundation, The Kresge Foundation, and Sandler Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

# **OVERVIEW**

Postsecondary education is widely seen as a necessity in the modern economy. Yet students at community colleges often face steep odds when it comes to completing a degree. Community colleges serve many low-income and first-generation students as well as students of color, all of whom must contend with many obstacles to success. These include the inability to pay for expenses not covered by financial aid, a lack of academic preparedness, a confusing array of requirements and paperwork for financial aid and course selection, and competing priorities such as the need to work. At the same time, two-year colleges are severely underfunded, and therefore are unable to provide the level of personal support that many students require. The three-year graduation rate for first-time, full-time freshmen in community colleges is only 35 percent.

MDRC and the Detroit Regional Chamber partnered in 2016 to create the Detroit Promise Path (DPP), an evidence-based student services program designed to help more Detroit high school graduates—among the nation's most underserved students—enroll and persist in college, accumulate credits, graduate, and potentially transfer to a four-year program. DPP builds on an existing scholarship program called the Detroit Promise, launched in 2013, which covers community college tuition and fees for up to three years of attendance. At the heart of DPP are campus coaches who help students acclimate to college, proactively reach out to them with help and reminders about tasks and deadlines, and offer a sympathetic ear to young people who may be grappling with personal challenges—all with the goal of keeping them in school and on track to graduate.

This report presents findings from MDRC's randomized controlled trial evaluation of DPP at five Detroit community colleges. The campus coach and other DPP program components were well-implemented at four out of five of the colleges, and program participation was high. More than 90 percent of program group students responded to coaches' initial outreach, and participation in coaching meetings remained high throughout the follow-up period for students enrolled in college. A student survey found that nearly 90 percent of respondents rated the program as valuable or highly valuable.

Many students continued to face significant obstacles to enrollment and persistence, however. Only about 65 percent of students in the program group enrolled in courses in the fall semester that they applied for a Promise scholarship. Of these enrolled students, more than 40 percent dropped out of school after one year. Students most often identified nonacademic barriers such as financial issues as the reason they dropped out of school.

The evaluation found that more students in the DPP program stayed enrolled in school and earned more credits, compared with students who were offered the Promise scholarship alone. However, at the three-year mark, there was no evidence of an impact on degrees earned.

It is clear that promoting college access is not enough. Programs must also tackle progress—helping students stay in school and get to graduation. The Detroit Promise scholarship combined with the Detroit Promise Path program supports is a step toward helping students stay in school. But there is still more to be done to help them get to graduation, too.

# **CONTENTS**

OVE	RVIEW	ii
LIST	OF EXHIBITS	vii
ACK	NOWLEDGMENTS	ix
EXE	CUTIVE SUMMARY	ES-1
СНА	PTER	
4	Introduction	1
	What is the Detroit Promise Scholarship?	3
	The Detroit Promise Program Model	5
	Evaluation Strategy	7
	Study Enrollment	8
	Student Population	9
9	Program Implementation and Student Participation	11
	Program Implementation	11
	Continuous Improvement	14
	Academic Outcomes for Detroit Promise Path Students	16
	Student Participation	18
	Student Survey	18
2	Effects on Students' Academic Outcomes	23
J	About the Evaluation	23
	Summary of the Main Effects	24
	Overall Program Effects on Academic Outcomes	25
1	The Cost of the Program	35
4	Technical Assistance Costs	36
	Bass, Indirect, and Total Costs	36
	Cost Effectiveness	38
5	Conclusions and Lessons for the Field	41
J	Lessons for the Field	42

#### **APPENDIX**

Α	Supplementary Survey Tables	45
В	Supplementary Academic Outcomes Tables	51
C	Supplementary Cost Tables	61
	RENCES	65
ABOU	JT MDRC	69

# LIST OF EXHIBITS

# **TABLE**

ES.1	Three-Year Academic Outcomes Summary	ES-6
1.1	Selected Baseline Characteristics of Program and Control Group Members	10
3.1	Three-Year Academic Outcomes Summary	25
3.2	Credentials Earned	30
3.3	Student Status at Three Years	32
4.1	Direct Cost of the Program per Program Group Member per Year	35
4.2	Net Cost of Education per Sample Member per Year from the College Perspective	37
4.3	Cost-Effectiveness Values from the College Perspective	39
A.1	Detroit Promise Path Survey Summary, Program Group Respondents Only	47
A.2	Survey Response Bias in Program Students: Baseline Characteristics, Respondents vs. Nonrespondents	49
<b>A.</b> 3	Survey Response Bias in Program Students: Primary Outcomes, Respondents vs. Nonrespondents	50
B.1	Primary Outcomes	53
B.2	Summer Enrollment	54
B.3	Enrollment, Credit, and Credential Impacts	55
B.4	Cumulative Credits Earned after Three Years, by Subgroup	57
B.5	Credentials Earned After Three Years, by Subgroup	59
C.1	Direct Cost of the Program per Program Group Enrollee per Year	63

# **FIGURE**

ES.1	Detroit Promise Path Program Model	ES-4
1.1	Detroit Promise Path Program Model	6
2.1	Persistence and Graduation Rates Among DPP Program Group Students Who Enrolled in Semester 1	17
2.2	Coaching Session Attendance Rates	19
3.1	College Enrollment Rates by Semester	26
3.2	College Full-Time Enrollment by Semester	28
3.3	Cumulative Credits Earned by Semester	29
3.4	Cumulative Credits Earned After Three Years, by Subgroup	33
3.5	Credentials Earned after Three Years, by Subgroup	34

# **BOX**

2.1	Reaching More Students: Scaling Up for Detroit Promise Path	15
2.2	The Effects of COVID-19 on Detroit Promise Path	20

# **ACKNOWLEDGMENTS**

MDRC would like to thank the Detroit Regional Chamber for the opportunity to partner on the design and evaluation of the Detroit Promise Path program. DPP's leadership and campus coaches are the ones who make the program work. We are continuously impressed by your dedication and hard work on behalf of your students. In addition to each of the coaches, we recognize DPP staff members Monica Rodriguez and Wytrice Harris, who lived and breathed the program.

MDRC would also like to thank the Youth Policy Lab at the University of Michigan, which has been a wonderful research partner throughout this project. The Youth Policy Lab made possible some of the work that we had originally only wished for, including the student survey and the student interviews. In particular, we thank Brian Jacob for his expertise and guidance, Andrea Plevek for her support of the project, and YPL research assistants Abigail Orrick, Brittany Vasquez, and Jannette Norrington for their work on collecting and analyzing student feedback. We look forward to continued partnerships on this and other University of Michigan research projects.

We would also like to thank the funders of this demonstration, without whom neither the program nor the study would have been possible. The program and the evaluation are primarily funded by the Michigan Education Excellence Foundation, with additional support from The W.K. Kellogg Foundation, Ford Foundation, JP Morgan Chase, and The Kresge Foundation. The Detroit Promise Path evaluation is affiliated with MDRC's College Promise Success Initiative, which was funded by the Ascendium Education Group.

The authors also would like to acknowledge other thought partners in Detroit, including Erica Orians at the Michigan Community College Association, Chuck Wilbur at Cities of Promise, Ashley Johnson at the Detroit College Access Network, and all the members of Detroit Drives Degrees. We are grateful for your advice and interest in this work since its inception. Special recognition and thanks go to the five colleges participating in this study: Henry Ford College, Macomb Community College, Oakland Community College, Schoolcraft College, and the Wayne County Community College District.

We also thank MDRC staff members for their contributions to this study and this report. At MDRC, we thank Rob Ivry, Michelle Ware, and Sean Blake, without whom this evaluation would not have gotten off the ground. Michael J. Weiss, Evan Weissman, Rashida Welbeck, Katie Beal, Ann Kottner, and Jill Kirschenbaum provided insightful comments on the early drafts of this report. Stanley Dai and Kalito Luna conducted the data programming for this report. Jill Kirschenbaum edited the report and Ann Kottner prepared it for publication.

Finally, but most importantly, we express deep gratitude to the students who participated in this demonstration. Without you, there would be no study. Thank you for sharing your experiences with us.

The Authors

# **EXECUTIVE SUMMARY**

"My coach made going to school easy. I never really had someone to just listen and help me release my ideas and feelings. She is wonderful."

"My coach took time to get to know me, then discussed the program, financial aid…. He advised me on "things I had no knowledge of."

"I deal with a lot of family issues and I can talk to my coach about anything.... He helped me figure out how to talk to my family and convince them that college is a stepping-stone to a better life. He lit the way for me in college to make something positive of myself."

- Three students in the Detroit Promise Path program

Many of today's college students—especially those in community colleges—are the first in their families to pursue higher education. Millions of undergraduates come from low-income families and battle self-doubt from within and stereotypes from without. Yet most community colleges are severely underfunded, and therefore are unable to provide the level of personal support that these students need. For these and other reasons, the three-year graduation rate for first-time, full-time freshmen in community colleges is only 35 percent.<sup>1</sup>

But what if things were different? This report is the final publication from MDRC's evaluation of the Detroit Promise Path (DPP) program. DPP is an evidence-based student services program for community college students. DPP was created by MDRC and the Detroit Regional Chamber in 2016 to help more Detroit high school graduates apply to and persist in college, accumulate credits, graduate, and potentially transfer to a four-year college. DPP builds on an existing three-year scholarship program called the Detroit Promise, which covers any gap between financial aid and tuition and fees for high school graduates to attend local community colleges. At the heart of DPP are campus coaches who help students acclimate to college, proactively reach out to them with help and reminders about tasks and deadlines, and offer a sympathetic ear to young people who may be grappling with personal challenges—all with the goal of keeping them in school and on track to graduate.

This report presents findings from MDRC's randomized controlled trial evaluation of DPP at five Detroit-area community colleges. About two-thirds of eligible students in 2016 and 2017 were randomly assigned to be offered DPP (the program group), while the rest were assigned to

National Center for Education Statistics, Integrated Postsecondary Education Data System, "Winter 2019-20, 200 Percent Graduation Rates component (provisional data)" (Washington, DC: U.S. Department of Education, 2020). Website: <a href="https://ies.ed.gov/">https://ies.ed.gov/</a>.

receive the Detroit Promise scholarship alone (the control group). The main findings include the following:

- The coaching and other DPP program components were well implemented at four out of five colleges, and program participation was high. More than 90 percent of program group students responded to coaches' initial outreach, and participation in coaching meetings remained high throughout the three-year follow-up period for students enrolled in college.
- DPP was viewed favorably by program group students at all of the colleges. A student survey found that nearly 90 percent of respondents rated the program as valuable or highly valuable.
- Many students continued to face substantial obstacles to enrollment and persistence. About 65 percent of students who were offered the full DPP program enrolled in courses in the fall semester that they applied for a Promise scholarship. Of these enrolled students, more than 40 percent dropped out of school after only one year.
- Compared with students who were offered the Promise scholarship alone, more students in DPP stayed enrolled in school and earned more credits. But after three years, there was no evidence of an increase in degrees earned.
- Direct costs of DPP were \$648 per student per year, for a total of \$1,944 per student over the course of the three-year program. By enabling students to take more courses, the program added indirect costs of an additional \$366 per student, which from the college perspective were at least partially offset by the increased revenue associated with students taking those courses.

During the two study cohorts in 2016 and 2017, about 625 students per year received the Promise scholarship and of those students, about 400 students per year were offered the new Detroit Promise Path program.<sup>2</sup> A total of 1,268 students are in the study.

The Detroit Promise Path has been scaled up over the past three years to serve more students. Beginning in 2018, DPP expanded and now serves *all* incoming students at four of the five Detroit-area community colleges that participated in the study. This program shows that College Promise programs—a popular intervention aimed at improving college access by making tuition free—can be leveraged to address both college access and academic progress.

<sup>2.</sup> The final semester of the program for the 2017 cohort was spring 2020, the same semester that the coronavirus pandemic hit Detroit. The city, and the students in the study, were highly impacted by the pandemic. The program quickly shifted to a fully remote version during this semester of the study period as well as subsequent semesters for later, non-study cohorts. Student need was drastically higher during this semester.

## THE DETROIT PROMISE PATH PROGRAM MODEL

Detroit's community college students face steep odds. They must grapple with considerable institutional issues such as insufficient advising and counseling staff, high rates of contingent or adjunct faculty teaching introductory courses, and a confusing array of requirements and paperwork for financial aid and course selection.<sup>3</sup> Community college students are referred to remedial courses at high rates, delaying their expected time of graduation.<sup>4</sup> They are often working while in school and cannot always prioritize studying.<sup>5</sup> For students from low-income households, the need to work is especially acute, as financial aid may cover tuition and fees but not transportation to school, child care, food, or other necessities.<sup>6</sup> At the same time, students may receive enough aid for tuition but not enough to purchase all of their textbooks.

Black students face additional hurdles such as self-doubt, a sense of not belonging, stereotyping from faculty or other students, and both subtle and overt racism. These challenges can be further amplified for students who are coming from predominantly Black high schools in Detroit to predominantly White colleges in the suburbs. And because community college students typically spend little time on campus outside of class time—they are unlikely to live on campus, participate in clubs, or play sports—their emotional connection to college can be more tenuous, further reducing their sense of belonging in the college community compared with students at residential universities. B

<sup>3.</sup> Jolanta Juszkiewicz, *Trends in Community College Enrollment and Completion Data 2015* (Washington, DC: American Association of Community Colleges, 2015); Kevin J. Dougherty, Hana Lahr, and Vanessa S. Morest, *Reforming the American Community College: Promising Changes and Their Challenges*, CCRC Working Paper 98 (New York: Community College Research Center, Teachers College, Columbia University, 2017); Robert S. Feldman, *The First Year of College: Research, Theory, and Practice on Improving the Student Experience and Increasing Retention* (Cambridge, UK: Cambridge University Press, 2017).

**<sup>4.</sup>** Elizabeth Ganga, Amy Mazzariello, and Nikki Edgecombe, *Developmental Education: An Introduction for Policymakers* (New York: Community College Research Center, Teachers College, Columbia University, 2018).

**<sup>5.</sup>** Erin Dunlop Velez, Alexander Bentz, and Caren A. Arbeit, *Working Before, During, and After Beginning at a Public 2-Year Institution* (Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2018).

<sup>6.</sup> Sandy Baum, Student Debt: Rhetoric and Realities of Higher Education Financing (New York: Palgrave Macmillan, 2016); Jennifer Ma, Sandy Baum, Pender Matea, and Meredith Welch, Trends in College Pricing (New York: The College Board, 2017).

<sup>7.</sup> See Delila Owens, Krim Lacey, Glinda Rawls, and JoAnne Holbert-Quince, "First-Generation African-American Male College Students," The Career Development Quarterly 58, 4 (2010): 291-300, and Shaun R. Harper and Isaiah Simmons, Black Students at Public Colleges and Universities (Los Angeles: USC Race and Equity Center, 2019) for more. In the DPP study, some of the colleges are predominantly Black institutions and some are predominantly White institutions.

<sup>8.</sup> Regina Deil-Amen, "Socio-Academic Integrative Moments: Rethinking Academic and Social Integration Among Two-Year College Students in Career-Related Programs," *Journal of Higher Education* 82, 1 (2011): 54-91; Terrell L. Strayhorn, *College Students' Sense of Belonging: A Key to Educational Success for All Students* (New York: Routledge, 2012).

The Detroit Promise, administered by the Detroit Regional Chamber and launched in 2013, is one of more than 300 free college or College Promise scholarships nationwide. These are often called "place-based scholarships," in that they offer to cover college tuition and fees for all the students in a particular geographic area—in the case of the Detroit Promise, the entire city of Detroit. Like most College Promise scholarships, the Detroit Promise is available to all high school graduates and does not have merit-based eligibility criteria. Students may use their scholarship to attend any community college in the greater Detroit area.

In the early years of Detroit Promise, Chamber staff members observed that the scholarship was helping more high school graduates enroll in college initially, but large numbers of scholarship recipients were dropping out before their second year. The Chamber wanted to incorporate student success components into the scholarship so Promise students would not only enroll in school but would be more likely to succeed there. As a result, MDRC and the Chamber created the Detroit Promise Path, which added four evidence-based service components to the existing Promise scholarship (shown in Figure ES.1).

# FIGURE ES.1 Detroit Promise Path Program Model

#### **SCHOLARSHIP** OTHER SERVICES AND BENEFITS \$-\$-\$-\$ \$-\$-\$-\$ Covers Offers Offers \$50 **Engages** Uses a management tuition each month students in campus and fees coaching for expenses the summer information system after and requires not covered by by encouraging each student financial aid financial aid, enrollment or to track student connecting for students to meet with such as bus participation enrolled full time a coach twice passes or them them to and automate and assists per month books, to local initiatives appointments and financial them with students who such as summer meet with summer job incentives tuition coaches programs for better monitoring

The heart of DPP is its campus coaching component. Students begin meeting with a coach in the late summer before their first semester of college. They are also offered a financial incentive to attend coaching meetings: a monthly gift card that is refilled with \$50 each month they meet with their coach as directed. The money helps students pay for expenses not covered by financial aid. DPP lasts for the full three years of the Promise scholarship, including summer semesters, when students are encouraged to enroll in classes (paid for by the scholarship) or engage in a local summer jobs program called Grow Detroit's Young Talent. DPP program operation is supported by a management information system that coaches use to track participation in coaching sessions and to do outreach via email, phone, and text messages.

The present study enrolled students in 2016 and 2017. Participants' average age at study entry was 18, as the Detroit Promise scholarship serves recent high school graduates. Students must enroll

in college within three semesters of high school graduation in order to access the scholarship, and most students enroll in the fall semester immediately following graduation. In the study, well over 90 percent of students identified as people of color, primarily as Black. Four out of five students reported that they did not live with a parent who had completed a bachelor's degree.

This evaluation of DPP aims to understand the program's implementation, effects, and costs. The report first presents a descriptive analysis of the program's implementation and academic outcomes for program students only. The findings are supported by evidence from interviews, focus groups, a student survey, program participation data, and college transcript records. Second, the report presents estimates of the program's impact on student academic outcomes, using a randomized controlled trial (RCT) design, widely accepted as the gold standard of evaluation designs. In the RCT, students were randomly assigned to be eligible either for DPP (the program group) or for the Detroit Promise scholarship alone (the control group). Random assignment is a fair way to distribute limited spaces in a program, and it also allows unbiased estimation of the program's impacts. The difference between the two groups represents the impact of the additional program components. This is not an evaluation of College Promise programs generally; the control group students in this study continued to receive the Detroit Promise scholarship.

#### PROGRAM IMPLEMENTATION FINDINGS

Overall, DPP was implemented with high quality and with high fidelity to the model at four of the five colleges. The service contrast, or the difference between what program group students received and what control group students received, was meaningful. Across cohorts and semesters, DPP students had positive views of the program, particularly their relationships with their coaches. In the words of one student, "My coach is a generous person. He is patient with me concerning my financial aid and he offers so much thoughtful advice with whatever issue may arise." In a student survey, nearly 90 percent of respondents described DPP as valuable.

Yet students reported that they continued to face significant barriers to success. Many struggled to afford basic needs; financial issues—whether academic, such as being able to afford textbooks, or nonacademic, such as being at risk of eviction and homelessness—were students' most serious concerns.

These factors may underlie the high rates of students who did not enroll initially or who left college after a few semesters. Of the students who completed their Detroit Promise scholarship application during summer 2016 and summer 2017 and therefore entered the study, only about 65 percent of them enrolled in courses the subsequent fall semester. This is much lower than seen in other MDRC community college studies.

# **Impact Findings from the Randomized Controlled Trial**

This study prespecified three main or confirmatory outcomes: enrollment, credits earned, and degrees earned. As shown in Table ES.1 over the three years of the program, DPP helped more

**TABLE ES.1** Three-Year Academic Outcomes Summary

Outcome	Program Group	Control Group	Difference	P-Value
Average number of semesters enrolled	2.9	2.5	0.4***	0.002
Average number of semesters enrolled, categorical <sup>a</sup>				
0	18.2	20.1	-1.9	0.417
1 - 2	32.6	40.5	-7.9***	0.005
3 - 4	19.2	17.5	1.8	0.436
5 - 6	30.0	21.9	8.1***	0.001
Total credits earned	17.1	13.5	3.7***	0.001
Earned a credential (%)	7.2	6.8	0.4	0.771
Sample size (total = 1,268)	829	439		

SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score.

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

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

Credential measures include three full academic years of data (in other words, fall, spring, and summer for three full years). Enrollment and credit measures include these same data except the final summer session (in other words, Year 3 summer is not available).

<sup>a</sup>Average number of semesters is the primary outcome in this analysis. The categorical version of this outcome is a complementary measure added to aid the interpretation of the primary measure.

students make progress in higher education, based on the positive impacts on enrollment and credits earned, but it did not have a measurable effect on credential completion in this time-frame. Thirty percent of students in the program group enrolled in five or six semesters (out of six) compared with 21.9 percent of students in the control group, for an estimated impact of 8.1 percentage points. Program group students earned more credits than the control group students, on average (17.1 credits compared with 13.5 credits, respectively), for an estimated impact of 3.7 credits—a 27 percent increase.

At the end of three years, 7.2 percent of the students in the program group earned a degree or certificate compared with 6.8 percent of students in the control group. The difference, 0.4 percentage points, is neither practically nor statistically significant. While there is no measurable effect on credential completion at this time, it is possible that the impact on credit *accumulation* may lead to an impact on completion in the future.

# **Program Costs**

DPP cost an estimated \$840 per student per year for a total of \$2,520 per student over the three-year program—the college-perspective net cost. This includes *direct costs*, such as staff salaries and monthly student financial incentives, and *indirect* costs, such as the cost of additional credits taken by students in the program group compared with students in the control group, as well as increased revenue from those additional credits to the college. The total direct cost per program group student per year was \$648. (Both the net and total direct costs include program group members who did not enroll.) Direct costs make up the bulk of the total cost of the program. More than half of the cost of the program came from the coaching component—namely, employing the campus coaches who worked directly with students.

At this cost, the program helped more students persist in college and earn more credits. However, because DPP did not lead to more degrees earned at the three-year mark, it was not cost-effective for improving degree receipt.

# **CONCLUSIONS**

Over the six semesters of the program, DPP helped more students make progress in college; they enrolled in more semesters and earned more credits. At this point, however, there is no evidence of an increase in degrees earned. MDRC hopes to secure funding for longer-term follow-up to continue to track these students. Around 30 percent remained enrolled in college during the final semester of follow-up.

The Detroit Promise Path program was implemented well, and nearly all students contacted for the survey and qualitative study expressed a highly positive view of the program and of the help they received from their coaches. Yet these students continued to face great barriers to success. More research on how to address these issues is required.

It is clear that college access is not enough. Programs must tackle both *access*—helping students get to college—and *progress*—helping them stay in school and get to graduation. The Detroit Promise Path program model is one way that College Promise and other free college programs can support students' academic success. However, there is more to be done to improve graduation rates as well.

# Introduction

Imagine you are getting ready to enroll in college for the first time. You've just graduated from high school—awesome. Now it's August, and it's a whole new world. You're excited to learn new things in your classes, but are you supposed to pick College Algebra or Intro Statistics? You'll have to figure out a new bus route that gets you to school early in the morning. Maybe you can look that up on your phone tomorrow when your data plan resets. You got an email about FAFSA verification—what the heck is that? Who should you ask? Okay, table that for today.

Your parents are proud, but they're also concerned. They never went to college and they need you to keep your part-time job to help with the rent. You can't ask them what it will be like at school. Will other students want to be your friend even though you're from the city and they're from the suburbs? Will your professors make assumptions about you because of what you look like or where you come from? What if you have questions about where to go on campus—who should you ask? You don't want people to think you don't belong....

This is what starting college looks like for millions of students every year. Many of today's incoming freshmen—especially those in community college—come from low-income backgrounds and are the first in their families to pursue a degree. They often report battling self-doubt from within and stereotypes from without. Yet most community colleges are severely underfunded and unable to provide the kind of advising, counseling, and other supports that these students need. For this and other reasons, the three-year graduation rate for full-time, first-time freshmen in community colleges is only 35 percent.<sup>1</sup>

But what if things were different? What if, before students even started college, someone was actively reaching out to them, texting them weekly, asking about their challenges and helping to solve them? Someone who understood where they came from and was there to help them succeed?

<sup>1.</sup> National Center for Education Statistics (2020).

"My coach made going to school easy. I never really had someone to just listen and help me release my ideas and feelings. She is wonderful."

"My coach took time to get to know me, then discussed the program, financial aid.... He advised me on things I had no knowledge of."

"I deal with a lot of family issues and I can talk to my coach about anything. He helped me figure out how to talk to my family and convince them that college is a stepping-stone to a better life. He lit the way for me in college to make something positive of myself."

—Three students in Detroit Promise Path

This is the final publication from MDRC's evaluation of the Detroit Promise Path (DPP) program. The evidence-based student services program was created by MDRC and the Detroit Regional Chamber in 2016 to help more Detroit high school graduates who apply to a two-year college persist in school, accumulate credits, graduate, and potentially transfer to a four-year program. DPP builds on an existing three-year scholarship program called the Detroit Promise, which covers tuition and fees for city high school graduates to attend local community colleges. At the heart of DPP are campus coaches who help students acclimate to college, proactively reach out with help and reminders about tasks and deadlines, and provide a sympathetic ear for young people who may be grappling with personal challenges—all with the goal of keeping them in school and on track to graduation.

This report presents findings from MDRC's randomized controlled trial (RCT) evaluation of DPP at five participating Detroit community colleges. About two-thirds of eligible students in 2016 and 2017 were randomly assigned to receive the new DPP (the program group), while the rest were assigned to receive the new Detroit Promise scholarship alone (the control group). The main findings include the following:

- The campus coach and other DPP components were well implemented at four out of five colleges, and program participation was high. More than 90 percent of program group students responded to coaches' initial outreach, and participation in coaching meetings remained high throughout the three-year follow-up period for students who enrolled in college.
- DPP was viewed favorably by students at all five colleges. A student survey found that nearly 90 percent of respondents rated the program as valuable or highly valuable.
- Many students continued to face substantial obstacles to enrollment and persistence. Only about 65 percent of students who were offered the full DPP program enrolled in courses in the fall semester they applied for the Promise scholarship. Of these enrolled students, more than 40 percent dropped out of school after only one year.

- The evaluation found that, compared with students who were offered the Detroit Promise scholarship alone, more students in DPP stayed enrolled in school and earned more credits. But after three years, there was no evidence of an increase in degrees earned.
- Direct costs of DPP were \$648 per student per year, for a total of \$1,944 per student over the course of the three-year program. By enabling students to take more courses, the program added indirect costs of an additional \$366, which from the college perspective was at least partially offset by the increased revenue associated with students taking those additional courses.

This report presents three-year outcomes for study students covering the years 2016-2020. First, it describes the development of DPP, the program model, and the participating students. It also discusses the ramifications of the 2020 coronavirus pandemic for the city of Detroit, the students, the program, and the study. Next, the report shares qualitative and quantitative findings from the RCT evaluation, as well as an estimate of DPP's cost and cost-effectiveness. Finally, the report presents important lessons for policymakers and practitioners who may be considering similar programs in their communities.

# WHAT IS THE DETROIT PROMISE SCHOLARSHIP?

The Detroit Promise was launched in 2013 as the Detroit Scholarship Fund, to help more of the city's high school graduates enroll in college. A "last-dollar" scholarship, it covers any gaps between financial aid and tuition and fees that students may face. The scholarship is one of more than 300 free college or College Promise scholarships nationwide. Like many College Promise scholarships across the country, Detroit Promise eligibility criteria are geographically specific: Students must have graduated from a Detroit high school, be a resident of the city of Detroit, and attend a college in the area. For the community college Detroit Promise scholarship, which is being studied here, there are no merit-based eligibility criteria; all local high school graduates may take advantage of it. (In 2017 the program expanded to help students with qualifying ACT or SAT scores and qualifying high school grade point averages pay tuition at public four-year colleges in Michigan.)

The Detroit Promise scholarship is administered by the Detroit Regional Chamber as an educational and workforce development program. Students can enroll in the program for up to one year after finishing high school, and they are eligible for scholarship dollars for a total of three years. Students are directed to enroll in college full time, though this requirement is not enforced, meaning students do not lose the scholarship if they drop below full-time status. The Detroit Regional Chamber and other community stakeholders regularly communicate to high school students citywide that the scholarship is there to alleviate their financial burden and to make sure they can afford to attend community college.

<sup>2.</sup> The estimate comes from the Catalog of Local and State College Promise Programs, Fall 2020. The number of programs grows each year. See https://www.collegepromise.org/

The Detroit Scholarship Fund operated for three years as a scholarship-only program. In those early years, Chamber staff members observed that while the scholarship seemed to help more high school graduates enroll in college, large numbers of recipients were dropping out of college before their second year. When staff members spoke to students about their experiences, they heard that students were facing myriad issues beyond financial aid that hindered their ability to reach their goal of a college degree.

Many students said they were the first in their families to attend college and did not know how to navigate the campus environment. They needed assistance with financial aid paperwork, with choosing classes, and with improving their study skills, and they didn't know whom on campus to ask. Many students also arrived at college academically underprepared; most of them were graduates of the Detroit public school system, which has gone through significant turmoil in the last few decades, including drastic declines in funding and enrollment due to what sociologists call white flight. The Detroit Public Schools Community District (DPSCD) has alternated between city control and state takeover in the past 20 years.

The rate of students moving from one high school to another, particularly as low-enrollment schools have closed and new charter schools have opened, is higher in Detroit than in nearly any other city in the United States. High school graduation and college-going rates in the Detroit metro area are lower than national averages, and the city is also ranked lowest in the state and region. While the DPSCD has stabilized in the past few years, the turmoil students in this study experienced during their K-12 years could have ripple effects throughout their college experience.

For many of Detroit's high school graduates, just getting to college is a victory. Yet students attending community colleges face the same kinds of systemic issues they experienced in their K-12 years. Across the board, community colleges receive less funding relative to what four-year colleges receive, despite serving so many students who need additional support and guidance to succeed. This basic inequity in college funding between open-access, two-year colleges and four-year colleges serving better prepared, higher-income students is a nationwide issue.

It's not surprising, then, that community college students face steep odds. Nationwide, only about 20 percent of first-time, full-time community college students graduate within two years of starting; just over one-third graduate after three years.<sup>5</sup> At the schools that Detroit Promise students attend, the completion rates are even lower, ranging from 2 to 8 percent completion at two years and 6 to 20 percent completion at three years. Add to that the fact that most students who receive Detroit Promise scholarships come from low-income families and are receiving federal Pell Grants, and the graduation rates are lower still. Students must also grapple with many institutional issues, including lack of sufficient advising and counseling staff, high rates

<sup>3.</sup> A summary of the history of Detroit public schools can be found at <a href="https://landgrid.com/reports/schools#what-happend">https://landgrid.com/reports/schools#what-happend</a>.

**<sup>4.</sup>** For more information, see the Detroit Regional Chamber's State of Education annual report. The 2019-2020 report can be found at <a href="https://issuu.com/detroitregionalchamber/docs/soe\_book\_web.">https://issuu.com/detroitregionalchamber/docs/soe\_book\_web.</a>

<sup>5.</sup> National Center for Education Statistics (2020).

of contingent or adjunct faculty teaching introductory courses, and a confusing array of requirements and paperwork for financial aid and course selection.6

Other systemic issues may present additional barriers. For example, research shows that Black students and students from low-income households (again, the majority of Detroit Promise scholarship recipients), are more likely than White students to be selected for Free Application for Federal Student Aid (FAFSA)<sup>7</sup> verification, an often difficult process in which students may experience delays in receiving Pell grants, or may lose out on a semester of financial aid altogether.8

Community college students are also referred to remedial courses at high rates, delaying their expected time of graduation. They are commonly working while in school, meaning they cannot always prioritize studying.<sup>10</sup> For students from low-income households, this is especially acute, as financial aid may cover tuition and fees but not textbook costs. Nor does it cover the cost of transportation back and forth to school, child care, food, or other necessities. 11 Black students often face additional hurdles, such as self-doubt, a reduced sense of belonging, stereotyping by faculty or other students, and both subtle and overt racism. These challenges can be further amplified for students who are coming from predominantly Black schools in Detroit to predominantly White colleges in the suburbs. 12 And because community college students often spend little time on campus outside of class time—they are unlikely to live on campus, participate in clubs, or play on school sports teams—their social connection to the school can be more tenuous, further reducing their sense of belonging in the campus community.<sup>13</sup>

# THE DETROIT PROMISE PATH PROGRAM MODEL

Seeing the struggles their students were having, the Detroit Regional Chamber decided to incorporate additional evidence-based program components into the Detroit Promise scholarship. To do this, the Chamber and MDRC partnered to create DPP, which adds four components to the existing scholarship program. The program model is shown in Figure 1.1.

The core element of the program is its coaching component. DPP students begin meeting with their coaches in the late summer before their first semester of college. Coaches use a proactive and holistic approach: They actively reach out to students using multiple modes—text messages,

- 6. Dougherty, Lahr, and Morest (2017); Juszkiewicz (2015); Feldman (2017).
- 7. FAFSA is the form used to apply for Pell Grants and other need-based federal financial aid.
- 8. Holzman and Hanson (2020).
- 9. Ganga, Mazzariello, and Edgecomb (2018).
- 10. Velez, Bentz, and Arbeit (2018).
- 11. Baum (2016); Ma, Baum, Matea, and Welch (2017).
- 12. See Owens, Lacey, Rawls, and Holbert-Quince (2010) and Harper and Simmons (2019) for more. In the Detroit Promise Path evaluation, some of the colleges are predominantly Black institutions and some are predominantly White institutions.
- 13. Deil-Amen (2011); Strayhorn (2012).

#### FIGURE 1.1 Detroit Promise Path Program Model

#### **SCHOLARSHIP**

\$

# Covers tuition and fees after financial aid for students enrolled full time and assists them with summer tuition

#### **OTHER SERVICES AND BENEFITS**



Offers campus coaching and requires each student to meet with a coach twice per month



Offers \$50 each month for expenses not covered by financial aid, such as bus passes or books, to students who meet with coaches



Engages students in the summer by encouraging enrollment or connecting them them to local initiatives such as summer job programs



Uses a management information system to track student participation and automate appointments and financial incentives for better monitoring

email, and phone calls—to complement in-person, one-on-one meetings. Unlike traditional drop-in advising, the DPP model puts the onus on coaches to regularly send students messages and reminders. They talk with students about a wide variety of topics, including students' experiences in school, time management, study skills, problem-solving strategies, personal issues, managing competing responsibilities, and building a sense of self-efficacy. Coaches also help with questions such as how to pick a major and they connect students with advisors or counselors for assistance in selecting courses or mapping out a graduation plan. One coach described the role as being a conduit: "If a student connects to me, I will connect them to advisors, financial aid, the food bank—everything they need." Most DPP students are required to have two in-person meetings with their coach every month. Some students who are excelling in school are given the option to replace one of those meetings with a group meeting, which allows them to connect with other students in the program. To ensure that coaches are able to meet student needs, DPP uses a case management model in which students always see the same coach, and caseload ratios are kept under 1:150—far below national averages.<sup>14</sup>

Students are offered a financial incentive in the form of a gift card that is refilled with \$50 for each month that they meet with their coach. This incentive helps students pay expenses not covered by financial aid. The DPP program lasts for the full three years of the Promise scholarship, including summer semesters, when students are encouraged to either enroll in classes (also paid for by the scholarship) or join a local summer jobs program called Grow Detroit's Young Talent. The goal is to keep students engaged in some productive activity over the summer so they stay connected to their school and the DPP program, and therefore may be more likely to return to college in the fall. The entire DPP program operation is supported by a management information system (MIS) that coaches use to track participation in coaching meetings and for

**<sup>14.</sup>** DPP caseloads were always under 1:150 but usually hovered around the 1:125 range. For more about national statistics on caseloads, see <a href="https://nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Advisor-Load.aspx">https://nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Advisor-Load.aspx</a>.

email, phone outreach, and text messaging with students. The texts incorporate several behavioral science strategies to make messages more salient to students and easier for them to act on; for instance, the texts may include implementation prompts, clear instructions, and regular reminders about tasks and deadlines.

DPP is designed to meet the needs of local students by adding relevant, evidence-based student supports to the existing Detroit Promise scholarship. Multiple experimental studies have shown that approaches such as enhanced advising and financial incentives can have positive, modest effects. 15 However, evaluations of programs that combine multiple evidence-based components and provide services to students for a longer period of time have shown larger effects. 16 The Chamber and MDRC also customized program components based on conversations with students about what would work best for them. For example, most students preferred texting over email, so the MIS has a robust text messaging platform. Unlike many multifaceted community college programs that have been evaluated by MDRC and other researchers, management of the DPP program takes place outside of the colleges; while some coaches are college employees, most are employees of the Detroit Promise and are supervised by the Chamber. This is a function of how the Detroit Promise operated prior to the creation of DPP.

MDRC provided extensive technical assistance during the first two years of DPP to set up the program, develop cost-effective management strategies, teach staff members how to use the MIS and train them in behavioral science messaging strategies, and ensure the program was operating as intended. This study includes students attending one of five Detroit-area community colleges: Henry Ford College, Macomb Community College, Oakland Community College, Schoolcraft College, and Wayne County Community College District. All of them are open-access, two-year schools.

#### **EVALUATION STRATEGY**

This evaluation aims to understand DPP's implementation, effects, and costs. First the report presents a descriptive analysis of the program's implementation and students' academic outcomes, for program students only. The findings are supported by evidence from interviews, focus groups, a student survey, program participation data, and college transcript records.

Second, the report presents estimates of the program's impact on student academic outcomes using a RCT design, widely considered to be the gold standard in social science evaluation research. In the RCT, students were randomly assigned to be eligible either for the new DPP program (the program group) or for the scholarship alone (the control group). Random assignment is a fair way to distribute limited spaces in a program, and it also allows unbiased estimation of

<sup>15.</sup> Bettinger and Baker (2014); Mayer, Patel, and Gutierrez (2015); Page, Castleman, and Meyer (2020); Scrivener and Coghlan (2011); Welbeck, Diamond, Mayer, and Richburg-Hayes (2014); Welbeck, Ware, Cerna, and Valenzuela (2014).

<sup>16.</sup> Barr and Castleman (2017); Carrell and Sacerdote (2017); Evans, Kearney, Perry, and Sullivan (2017); Page, Castleman, Kehoe, and Sahadewo (2017; Rolston, Copson, and Gardiner (2017); Scrivener et al. (2015); Sommo, Cullinan, and Manno (2018).

the program's impacts. The difference in outcomes between the program group and the control group represents the impact, or value-added, of the additional program components. In this study, the impact measured is that of the new components, not the scholarship itself.

The report's experimental estimate of the program's impact used three sources of information:

**Demographic data.** Before random assignment, students completed the Detroit Promise scholarship application on the Chamber's website. The application contained questions about demographics and other background information. The data were used to describe the study sample, to document that the characteristics of the program group members and the control group members were similar at the outset of the study, and to define subgroups of interest.

**College records**. Measures of academic outcomes were obtained from college transcripts, which were provided to MDRC by the five participating colleges.<sup>17</sup>

**National Student Clearinghouse**. These data, which the Clearinghouse gathers from nearly all postsecondary institutions in the United States, were used to examine academic outcomes such as enrollment, transfer, and graduation rates.

## STUDY ENROLLMENT

Study enrollment took place in summer 2016 and summer 2017, ahead of the fall 2016 and fall 2017 semesters, respectively. A total of 1,268 students were in the study. The RCT was conducted by MDRC; the qualitative study was conducted by MDRC and the Youth Policy Lab at the University of Michigan (YPL).

All students who were eligible for the Detroit Promise scholarship were also eligible for the new Detroit Promise Path program. For the RCT, eligible students were randomly assigned to either a program group, in which campus coaches made contact with students and students were eligible for the additional financial incentives; or a control group, in which students continued to receive their Promise scholarships and regular college services, but did not receive outreach from coaches, messaging, or monthly financial incentives.

Students were notified of the DPP program and study and were given the option to decline to participate; no students chose to decline the program and study. At the time that they completed the scholarship application and joined the study, students were asked which of the five participating community colleges they would be attending. Following random assignment into

<sup>17.</sup> Data were collected through the summer 2020 semester. However, due to the coronavirus pandemic, there may be some missing data in spring/summer 2020.

**<sup>18.</sup>** It is possible that some students, upon reading the informed consent language in the application, chose not to complete the application at all. The researchers do not have a way to measure this. Anecdotally, program staff did not believe this was an issue.

the program group, the DPP students were cold called by coaches inviting them to the new program and asking them to schedule their first one-on-one meeting.

To be clear, this study is an evaluation of the impact of the additional services offered in DPP, on top of the Detroit Promise scholarship; it is not a test of Promise scholarships generally. Students in the program group continued to be eligible for the Detroit Promise scholarship, as did control group students, who continued to receive Promise scholarship dollars as they would have in the absence of the study.19

An additional note on terminology: While the colleges in the study refer to the semester beginning in January and ending in May as the "winter semester," this report calls this semester the "spring semester" to match terminology used in most colleges and other MDRC studies.

## STUDENT POPULATION

Table 1.1 presents the demographic characteristics of the students in the study. The average age at study entry was 18, as the Detroit Promise scholarship program serves recent high school graduates. Students must enroll in college within three semesters of high school graduation in order to access the Promise scholarship, and most students enroll in the fall semester immediately following high school graduation. In the study, well over 90 percent of students identified as people of color, primarily as Black. Four out of five students reported that they did not live with a parent who had completed a bachelor's degree.<sup>20</sup>

The federal government reports that nearly half of Detroit residents under the age of 18 live in poverty, while the United Way puts that number at more than 70 percent.<sup>21</sup> At the five participating colleges in this study, rates of federal Pell Grant receipt for first-time, full-time students ranged from 27 percent to 81 percent, with the highest percentages at the two colleges enrolling the greatest numbers of Detroit Promise scholarship recipients. Detroit has experienced generation after gen-

<sup>19.</sup> Most Detroit Promise students qualify for federal, need-based Pell Grants that fully cover the cost of tuition and fees at Detroit-area community colleges. As a result, most students were not receiving substantial scholarship dollars, as their tuition and fees were already covered. However, all students, regardless of treatment group, were able to get the scholarship dollars to which they were entitled. Proponents of College Promise scholarship programs argue that simply offering the scholarship may make students more likely to enroll. since many students from low-income households do not realize that they are eligible for need-based financial aid. The idea is that even for students who do not receive any scholarship dollars, the "promise" of free tuition may relieve their financial anxiety and make them believe college is financially in reach.

<sup>20.</sup> Most students in the study were the first in their families to attend college. The Detroit Promise application asks students whether they live with a parent who has completed a four-year college degree, which is slightly different from the general definition used by researchers of "first in the family to attend college." However, in the study survey (reported below), students were asked whether they had any family members who had completed any college degree (a broader question than in the Detroit Promise application). In the survey, only about one-third of students reported having any family member who had completed a degree, while one-quarter had relatives who had attended college and not finished, and 20 percent had no family members who had been to college at all.

<sup>21.</sup> United Ways of Michigan (2017); U.S. Census Bureau (2018).

eration of racial disparities and systemic issues in many realms, from education and employment to housing and health, leaving many residents—especially Black residents—in poverty.<sup>22</sup> Detroit's Black students have also been historically marginalized and therefore historically underrepresented in higher education enrollment and completion. In short, Detroit Promise Path serves a student population that has faced significant barriers and needs additional support to improve outcomes and reduce disparities.

**TABLE 1.1** Selected Baseline Characteristics of Program and Control Group Members

	Program	Control	·	
Characteristics (%)	Group	Group	Difference	P-Value
Female	58.3	60.6	-2.3	0.432
Male	41.7	39.4	2.3	0.432
Age	17.9	17.9	0.0	0.944
Race				
Black or African-American	80.3	80.6	-0.4	0.880
Hispanic or Latino <sup>a</sup>	12.6	11.0	1.5	0.432
Two or more races	4.3	3.8	0.5	0.675
Asian, Native Hawaiian, or other Pacific				
Islander	1.7	2.1	-0.5	0.539
White	1.2	1.6	-0.4	0.546
American Indian or Alaska Native	0.0	0.8	-0.8**	0.012
Does not live with a parent who has earned a				
bachelor's degree	81.1	77.8	3.3	0.165
Sample size (total = 1,268)	829	439		

SOURCES: MDRC calculations from Detroit Promise scholarship application data.

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

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

Missing values are only shown for items with more than 5 percent missing values.

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

SAT and ACT scores are not included because more than half of all test score data is missing. SAT score was added to the Detroit Promise scholarship application in the second year of the study, at which time both test score questions became optional. For students reporting a score, there are no statistically significant differences between treatment groups (p=0.42 for SAT, p=0.17 for ACT).

<sup>a</sup>Hispanic or Latino students may be of any race.

<sup>22.</sup> For a summary of the many issues, including racial discrimination in housing, employment, and schooling, see Sugrue (1996, revised 2014). For examples across policy domains, see Orfield and Lee (2005); Schulz et al. (2002); Chetty, Hendren, Kline, and Saez (2014); Darden and Same (2000); Detroit Regional Chamber (2020).

# Program Implementation and Student Participation

his chapter describes the implementation of the Detroit Promise Path program and students' experiences in it, using qualitative research, a student survey, and an analysis of program participation. The chapter focuses on students in the program group. The next chapter compares academic outcomes for program group students and control group students.

# PROGRAM IMPLEMENTATION

MDRC and the Youth Policy Lab (YPL) conducted two rounds of qualitative implementation research. This included interviews and focus groups with program staff, interviews and an online survey with students, and a review of program participation data in the DPP management information system (MIS).

Overall, the program was implemented with high quality and high fidelity to the model, at four of the five participating colleges. All of the DPP components were made available to students in the program group. The service contrast, or the difference between what program group students received and what control group students received, appeared to be quite high at most colleges in most semesters. At one college, the program operation was drastically different as a result of staff turnover and a lack of support for the program from senior college leadership. Program implementation and fidelity are discussed below for the four stronger implementing colleges first, followed by a description of the challenges at the fifth college.

<sup>1.</sup> Researchers might assess fidelity to a program model as the extent to which the planned program services are offered or made available to students. An alternative is to examine the extent to which planned program services are received or experienced by students. In this study, researchers used the former and assessed fidelity based on whether program components were implemented and made available to students as designed, since this is within the control of the program implementers. See Weiss, Bloom, and Brock (2014).

Campus coaching began almost immediately after students joined the study during the summer and early fall of 2016 and 2017. Coaches reached out to students assigned to the program group by emails, text messages, and phone calls, and informed them of the benefits of the new program. Students were encouraged to schedule their first in-person coaching meeting as soon as possible, with the goal of meeting before school started or during the first week of the fall semester. More than 90 percent of students responded to outreach from coaches. As planned, coaches' caseloads of active students remained below the program model's 1:150 goal throughout the study period.

Coaches continued to reach out to students via telephone, text message, and email throughout the semester, with the goal of building relationships and identifying student needs early. They also continued to reach out to students who were not responsive,<sup>2</sup> and were able to reengage some of them well into the semester or even the next semester after months of silence, often when a student was experiencing a problem. MDRC's Center for Applied Behavioral Science (CABS) provided technical assistance to coaches so they could learn how to use behavioral science principles to inform the content of the text messages they sent to students. For instance, the messages used clear language and implementation prompts to help students complete complex tasks, such as filling out the Free Application for Federal Student Aid (FAFSA) form. Text messages tied to milestones such as registration also included task-oriented implementation prompts. Coaches identified which times of day got the best response rates and ensured that future messages were sent at those times. Across the program years, the messages were consistently sent out as planned. Service contrast for the coaching component was high. In contrast with the experience of students in the program group, students in the control group did not receive proactive outreach from coaches or regular text messages with reminders or prompts to complete tasks.

In interviews and focus groups, nearly all of the students said that coaching was the most important component of the DPP program. Their assessment of their coaches and the support they received from them was also almost universally positive. Students regularly used words such as "helpful," "generous," "caring," and "motivational" to describe their coaches. One student said, "My coach keeps me on track and makes sure I'm doing exactly what I should be doing. If I have any problems or bumps, he helps me find a solution to fix it." Another student said, "[Coaching] was very helpful because I can tell my coach anything, and they helped me with personal stuff, even though it wasn't in their job to do so." Another student echoed those sentiments: "[My coach] helped me balance my personal life and education and gave me great tips to stay organized and improve my study habits." Students appreciated that the coaches understood their experiences, often because the coaches came from similar backgrounds and were from the city of Detroit. Students also noted the value of having coaches who had attended the same community colleges where they coached. One student said the DPP coach was "the best African American educational role model I have had the pleasure to be introduced to."

The financial incentive to attend coaching meetings was also implemented as planned. Students automatically received \$50 on a refillable gift card each month, contingent on meeting with coaches as directed. The implementation of this component was more challenging for the Chamber than

<sup>2.</sup> The exception was if a student asked not to be contacted again. If, instead, students simply did not respond, coaches continued to send them messages periodically to try to reengage them.

originally foreseen, however. There were more logistical hurdles than anticipated, including a longer turnaround time for account processing—as much as two weeks—and some unexpected issues with vendors for students who did not have or did not provide Social Security numbers or bank account information. The process to replace lost gift cards was also more time-consuming than expected and required more staff involvement than desired. While some of these logistical issues were eventually smoothed out, it was not possible to shorten the two-week turnaround time to fill the cards each month. Regardless, the monthly incentive represented a unique aspect of DPP: Researchers could not identify an analogous program offering flexible financial supports at any of the colleges. Students said they greatly appreciated the gift cards (though some wished that the monthly refill occurred earlier in the month). Most often, students in focus groups said they used the gift cards to buy monthly bus passes or to purchase food on campus. This finding was mirrored in the student survey results (discussed below).

The summer engagement component of DPP was also implemented as designed. Each spring, coaches set aside specific meetings, typically in March or April, during which students were asked to decide how they would spend their summer and to make a plan. Coaches recommended that they take summer courses. Students might also opt to participate in a local summer jobs program called Grow Detroit's Young Talent. Not all students followed through on their plans, however, and many students who chose to participate in the jobs program reported having difficulty signing up for it or getting through its application process.

A notable contextual change occurred midway through the study. As described earlier, the Detroit Promise scholarship also covers students' summer tuition. This was true for students in both the program group and the control group; however, only program group students received strong messaging from coaches about the importance of taking summer courses. In the first year of DPP, that messaging led to large impacts on program group students' likelihood of enrolling in summer classes. However, following the reinstatement of year-round Pell Grants (also called Summer Pell) in 2018, the context changed greatly. The colleges began messaging to all Pell-eligible students—which nearly all study students were—that they now had federal financial aid to cover summer courses. As a result, in later years of the study, summer enrollment rates increased among students in the control group and DPP no longer effected a large impact because the rates were similar for both groups of students. (Summer enrollment is examined in more detail in the next chapter.)

The final DPP program component, the MIS, was implemented with high fidelity. Program staff used the MIS daily to track students' meetings with their coaches; to make notes about followup items; to identify students who had or had not completed requirements such as attending meetings or completing FAFSA; and perhaps, most often, to communicate with students via text messaging using a computer-based platform that plugged into the MIS. Program leadership also used the MIS to run regular reports about how DPP was operating and to identify areas for improvement. For example, if a report showed that a particular group of students or a coaching caseload was not participating in equal rates, the staff could allocate additional support to improve participation.

At one college, implementation of the program varied from year to year; ultimately college leadership and the Chamber decided to move the program entirely off campus. Three components—the financial incentive, encouragement to enroll in summer courses, and the use of the MIS—closely resembled what was used at the other colleges (and the program model); however, the coaching component went through several iterations over time. Initially, the coaches were employed by the college and had an office on campus. Following coaching staff turnover, however, and the college leadership's growing skepticism about the program, this school limited DPP to just one of its campuses for a semester, and then directed the coaches to hold meetings off campus. As a result, DPP students met with coaches in community locations or by video chat. The lack of support from college leadership presented a number of issues for the program that worsened over time. These included a diminished ability to solve financial aid issues, a lack of access to student data such as enrollment, and the inability of the coach to meet students on other campuses, among other issues. As a result, the coaching component at this college was drastically different compared with the other colleges and did not adhere to the program model. The service contrast following the shift to an off-campus version of the program is unclear; researchers were unable to gather the same types of data to assess the control condition at this college after 2017. Notably, this college enrolled the second-largest number of students in the MDRC study. The implications of how the program's implementation at this college might have affected students' academic outcomes is discussed in the Impacts section below.

# **CONTINUOUS IMPROVEMENT**

MDRC and the Detroit Regional Chamber used a continuous improvement framework to review DPP program operation on a regular basis, to identify areas for improvement, and to continue to tweak components to meet student needs. One of the improvements included creating Excel tools to predict future caseloads and staffing needs. This allowed DPP staff to plan carefully how to staff the program as it grew while ensuring that caseloads remained low enough to meet student needs. Program staff were able to have important conversations about whether the 1:150 caseload ratio worked for all participating colleges, and whether students from particular schools or areas of the city had greater needs and fewer external resources and required more support from the program. This has proven beneficial as the program has scaled up, too. See Box 2.1 for more information on the program's scale-up efforts.

DPP staff also learned lessons about and improved operations for student messaging. The program uses a two-way text messaging platform that plugs into the MIS to communicate with students. In early semesters, program staff experimented with automating the messages they sent out. They quickly found that if they weren't available to read and reply to students' text message responses immediately, students were discouraged and assumed it was a robot texting them—especially early on, before they had formed strong relationships with their coaches. Timing the automated messages so that staff members were on hand to reply promptly made a big difference in student response rates. Timing the messages to when students were between classes, especially at lunch time, also helped improve response rates.

## Box 2.1

# Reaching More Students: Scaling Up Detroit Promise Path

One of the notable outcomes of the Detroit Promise Path (DPP) study was that promising early findings led the Detroit Regional Chamber and other city stakeholders to expand the program before the study was completed.

DPP builds on the Chamber's existing three-year scholarship called the Detroit Promise, which covers tuition and fees for high school graduates to attend local community colleges. For the MDRC study, about two-thirds of eligible students in 2016 and 2017 were randomly assigned to receive full DPP coaching support and other services (the program group), and the rest were randomly assigned to receive the Promise scholarship alone (the control group). This was done to allot limited spaces fairly, given funding constraints, as well as to allow for a rigorous evaluation of the new program.

But early findings showed statistically significant improvements in enrollment, full time enrollment, and credit accumulation—all important intermediate outcomes. So in 2018, the Chamber secured additional funding to begin expanding DPP. Based on coaching caseloads and the colleges' level of support for the program, DPP was able to offer its services to all incoming Detroit Promise students at four of the five participating community colleges that fall, not just to students in the study. In 2019, the Chamber added a sixth community college, Jackson College, to the scholarship program, and hopes to add a coach after the pandemic is over.

#### **HOW DID THEY DO IT?**

The Chamber used the early research findings to show funders and local stakeholders how well the program was working. Local philanthropies, especially those engaged in economic development and education initiatives such as Detroit Drives Degrees, which focuses on postsecondary attainment, were eager to support a program proven to improve students' persistence rates. The Chamber also used a great resource: the voices of DPP students themselves. Giving students the opportunity to talk about the value of the program and to tell their personal stories of success in college helped make the case that this was a program worth expanding and sustaining long-term.

#### WHAT'S NEXT?

Before the 2020 coronavirus pandemic, the Chamber's goal was to continue to scale up the program by adding a coaching component for Detroit students who used the Promise scholarship to attend area four-year colleges. While these plans are temporarily on hold, accommodating students who start off at four-year colleges as well as students at two-year schools who are transferring into baccalaureate programs is a priority for the Chamber as well as for stakeholders in Detroit Drives Degrees. At the same time, the state of Michigan has created a statewide tuition support program called Michigan Reconnect. As the program grows, one policy goal is to develop supports based on lessons from Detroit Promise Path and other coaching programs.

An open question based on the qualitative research is how to help Detroit Promise students who do not enroll in school. About one-third of students who signed up for the Detroit Promise scholarship and entered the study in summer 2016 and summer 2017 did not enroll in college

the following fall semester. While researchers were unable to get comprehensive information on these students' experiences, qualitative interviews with some of these students as well as reports from DPP staff who contacted the program group students who did not enroll, identified one common issue: financial concerns. Even with the Promise scholarship in place, students often experienced issues with either FAFSA completion or FAFSA verification that made them unable to enroll in courses or caused them to be dropped from courses due to nonpayment. Many students also reported that they could not afford other expenses not covered by financial aid, such as transportation, rent, or child care, and opted to work instead of attending school. As noted earlier, research has shown that Black students are more likely than White students to be selected for FAFSA verification, as are students from low-income households compared with students from higher-income households; DPP coaches saw FAFSA completion and verification as the greatest systemic issue for students. Financial aid issues were also seen as a significant driver of "summer melt," in which students who intended to enroll in college in the fall semester disengaged during the summer and did not enroll after all.

In fact, financial issues loomed large for most DPP students. Said one, "I was not having the resources I need for class on time due to financial issues. Maybe next semester I will." The "opportunity cost" of attending college was also a concern. Many students, enrolled or not, worked full or part time and said their families relied on their earnings to help pay for rent and food for the household. Other issues typically associated with summer melt, such as losing interest in college, or changes in circumstance, such as joining the military or moving away, were rare compared with financial struggles, coaches said.

Another challenge might be categorized as what one student called "school skills." Many students reported that they struggled with time management, note-taking and study skills, and had trouble paying attention in class when things moved at a faster pace than they had been used to in high school. Although DPP created additional resources and actively helped students develop these skills, some students said the deluge of difficulties made it hard to stay focused and motivated; others concluded that college was not really for them and opted to work instead.

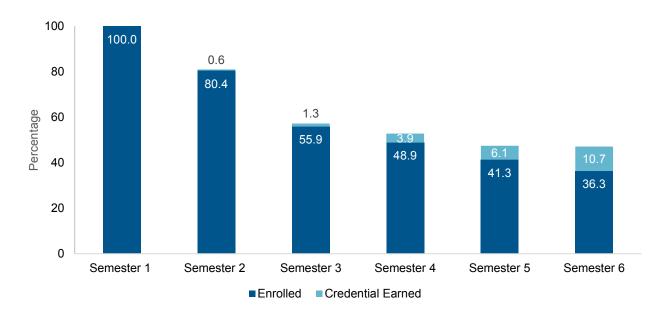
# ACADEMIC OUTCOMES FOR DETROIT PROMISE PATH STUDENTS

As previously described, this evaluation includes two cohorts of students who fully completed the Detroit Promise scholarship process. In the randomized controlled trial (RCT), a total of 829 students were randomly assigned to be offered DPP (the program group), and 439 were assigned to receive the Detroit Promise scholarship alone (the control group). Completing the scholarship process included registering for college and getting a college ID number. Therefore, it was expected that most students would be enrolled in college in Semester 1, although students had up to three semesters after high school graduation to begin taking up the scholarship. However, only 65 percent of program group students enrolled in courses in Semester 1—notably lower than expected. Some of these students enrolled in subsequent semesters. The overall percentage of students who *ever* enrolled increased to 76 percent as of Semester 2 and 79 percent as of Semester 3. As noted earlier, qualitative research suggests that the most common reason for delayed en-

rollment was FAFSA issues, especially for students who were flagged for FAFSA verification and were not able to get their application resolved before the semester started.

How did the students in the program group who began college in Semester 1 fare? Figure 2.1 presents enrollment and credentials earned for this subpopulation over six semesters. Eighty percent of the students who were enrolled in Semester 1 persisted into the second semester and 56 percent of them were still enrolled in Semester 3 the following fall. On average, throughout the three-year follow-up period, the students who began in Semester 1 enrolled in 3.7 semesters (out of a possible 6), and earned 23 credits (not shown in table).

FIGURE 2.1 Persistence and Graduation Rates Among DPP Program Group Students Who **Enrolled in Semester 1** 



SOURCE: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

NOTES: This figure displays the enrollment over time for the 542 program group students who enrolled in Semester 1.

According to federal Integrated Postsecondary Education Data System (IPEDS) data from 2016, the three-year graduation rates for Pell-eligible students at the five DPP colleges ranged from 5 percent to 14 percent, with a weighted average of 7.2 percent. 3 Looking at the DPP students who enrolled in Semester 1 (also shown in Figure 2.1), 10.7 percent earned a degree or certificate in this timeframe. A comparison of the two data sets likely would not reveal much about the effectiveness of Detroit Promise Path, however. For one thing, the populations are not identical: Participation in DPP is limited to Detroit residents only, most of whom are Pell-eligible, whereas the IPEDS numbers include *all* Pell-eligible students who attended these five colleges.

<sup>3.</sup> The weighted average is based on the proportion of students in the sample coming from each of these institutions.

The time period is also not the same: In the study, DPP graduation rates are from 2019 and 2020, and the IPEDS rates are from 2016. However, readers may find it useful to consider how the DPP students performed relative to the schoolwide numbers that are available. The DPP students who began college in Semester 2 or 3 fared similarly to the Pell-eligible students, with somewhat lower levels of credit accumulation and degree completion, given that they started college a semester or two later.

## STUDENT PARTICIPATION

Students in the program group were directed to meet with their coach one-on-one twice per month in their first semester in college as well as in any semester thereafter if they were struggling, either academically or personally. Students who were doing well could replace one of their monthly one-on-one meetings with a group session or group activity with the coach. One student described the group sessions as "cool" because "you get to meet other students who are from the same place as you and making the same progress in college."

Figure 2.2 presents student participation in coaching, derived from MIS data. (As incentive receipt is tied directly to coaching participation, it is not presented independently.) Throughout the study period, most enrolled students met with their coach five or more times per semester, on average. While this is slightly below the average required to fully meet the twice-per-month requirement (the number of meetings varied according to the academic calendar each semester), it is encouraging and shows a high level of engagement in the program among enrolled students. In most semesters, student participation rates increased over the course of the semester (not shown). For instance, students who did not respond to outreach in August or September might begin to respond and attend coaching meetings in October.

For the final study cohort, participation rates remained steady in spring 2020, during the COVID-19 pandemic. Note that during the pandemic, the in-person coaching meetings were replaced with virtual meetings by video call or telephone; they were scheduled using the same system as the in-person meetings and used the same text message reminders. (Box 2.2 describes in more detail the impacts of the pandemic on the students, the DPP program, and the study itself.)

## STUDENT SURVEY

During the third relative semester following random assignment for each cohort, MDRC and YPL fielded a student survey to the full study sample. The goals of the survey were to understand students' experiences in college, and for the program group students in particular, to understand their experiences in the Detroit Promise Path program. The survey asked questions about students' first year in college as well as whether they had enrolled in a second year.

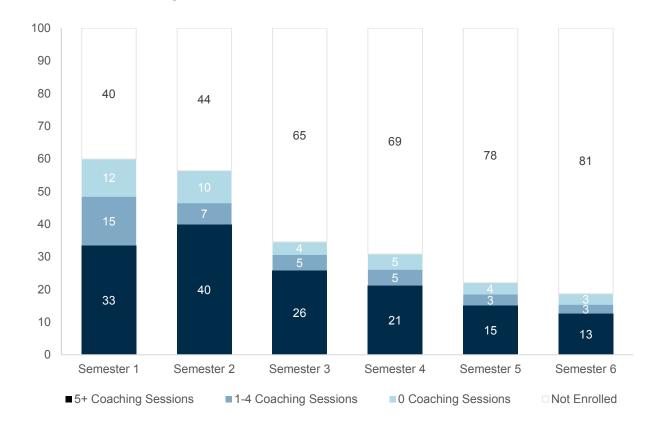


FIGURE 2.2 Coaching Session Attendance Rates

SOURCE: MDRC calculations using data from the Detroit Promise Path colleges and the MDRC management information system.

NOTES: Only coaching sessions attended by program group students during semesters in which they were enrolled in college are shown above.

Coaching sessions for students who enrolled at colleges other than the ones they identified on their Detroit Promise scholarship applications are not included.

The sample for this figure is the 829 program group students.

For the purposes of this table, enrollment is defined as being enrolled at the college of random assignment only.

## **Fielding**

Students were sent both physical mailings and email invitations to participate in the survey. Nonrespondents received a total of five follow-up email reminders over the ten-week data collection period plus phone calls. For Cohort 1, a \$2 pre-incentive was included in the physical mailing. Following low response rates for that cohort, students in Cohort 2 were offered a \$20 gift card incentive that was sent to participants after their responses were recorded. Overall, the response rates for program group students were 34 percent for Cohort 1 and 42 percent for Cohort 2. Only surveys with more than half of the questions answered were considered complete and included in the analysis.

Control group students were also included in the survey fielding, but the response rates were very low—notably lower than for program group students. For this reason, MDRC and YPL did not

## Box 2.2

## The Effects of COVID-19 on Detroit Promise Path

The COVID-19 pandemic struck Detroit early. In March and April 2020, it was among the hardest-hit cities in the United States. The impacts were immediate and dire for Detroit's community college students, the focus of the Detroit Promise Path (DPP) study.

Like other Detroit schools, the five community colleges in this study closed quickly. Some were able to pivot immediately to online education, while others took several weeks to reorganize and restart the semester virtually. Either way, students in the study experienced great disruptions in their lives and in their education. Many found themselves without reliable home internet or access to a laptop or other devices to use for their schoolwork. High unemployment rates in Detroit created great financial uncertainty for students, their families, and the city itself. All were still navigating the pandemic and its effects—many students had friends or loved ones who became ill or died—at the time of the writing of this report.

The pandemic shutdown in Detroit began during the spring 2020 semester, the sixth semester of the DPP study's second cohort, and both students and study were affected. Twenty-seven percent of study students in this cohort were still enrolled in the spring 2020 semester. To examine the pandemic's impact, the MDRC research team used a framework developed by Larry Hedges and Elizabeth Tipton for assessing educational studies during the pandemic.\*

The research team conducted qualitative phone interviews with program staff to understand how DPP was operating during the pandemic. The program quickly moved from an almost exclusively in-person format to an exclusively remote one. In-person coaching meetings were replaced with video chat or phone calls. DPP program staff mobilized to get laptops to students who didn't have them and who were now forced to take all classes from home. The study's service contrast, or the difference between what students in the program group received and what students in the control group received, appeared to continue to be strong throughout the spring semester; program group students' participation rates remained high despite the move to the virtual format. To the researchers' knowledge, the colleges did not institute any similar remote coaching program that control group students might have accessed.

The research team also assessed changes in student needs. According to conversations with DPP staff, program group students in the spring semester experienced much higher levels of need than in past semesters. Because of the disruptions to their education, many students shared that they were struggling with motivation, attention span, and study skills, given the abrupt move to online coursework. A few students chose to delay graduation so they could graduate when their families could attend in person. Students also expressed concerns about their health or the health of their families, job loss, financial instability, and the risk of eviction, among other issues. Because Detroit was so hard-hit, and because the effects of the pandemic disproportionately affected low-income and Black residents—two groups that represent a large share of the participants in this study—it is clear that students in the spring 2020 semester faced unusually challenging obstacles. The program staff worked hard to help them, but the impacts of the pandemic are only beginning to be understood. Some issues, like the threat of eviction, were far beyond the DPP staff's capacity to assist.

The research team invites readers to consider this context when reviewing the outcomes for this program.

<sup>\*</sup>Larry Hedges and Elizabeth Tipton. 2020. "Addressing the Challenges to Educational Research Posed by Covid-19." Working Paper 20-47. Evanston, IL: Northwestern Institute for Policy Research.

assess statistically significant differences between the two groups' responses, as comparing the two groups would produce results that are neither reliable nor generalizable. Rather, the survey findings were used to understand program group students' experiences in the program. Their responses may provide insights to consider for future replications or expansions of the model.

## Survey Findings

A central aim of the survey was to examine participation in the Detroit Promise Path program, utilization of campus services outside of DPP,<sup>4</sup> self-efficacy,<sup>5</sup> and barriers to enrollment. The survey also included questions about student employment. The summary of findings presented here combines responses from the two cohorts.

## **Program Participation and Service Usage on Campus**

A key component of DPP is the coaching support. Program group students' participation rates in this service were high: Of those who responded to the survey, about 90 percent reported meeting with a coach. Over half of the program group survey respondents reported meeting with their coach more than three times. In their meetings with coaches, respondents reported covering issues such as financial aid, advice on academic progress, career planning, and personal challenges. Overall, participants found Detroit Promise Path worthwhile, with 86 percent of respondents noting that the program had been valuable.

A large segment of respondents (76 percent) indicated that the monthly gift card incentive they received had been helpful. Participants reported that they most often spent their monthly gift card on food (44 percent), followed by transportation (22 percent) and books/supplies (19 percent). The reported use of the gift cards indicates that program participants were facing challenges paying for basic needs while in school.

## Self-Efficacy and Barriers to Enrollment

Students in the program group reported high rates of familiarity with various college processes: 73 percent of respondents reported that they understood the process of choosing classes well, and 70 percent reported understanding academic requirements for their program. Sixty-six percent of respondents said that they were familiar with the financial aid application process.

<sup>4.</sup> Literature on student persistence and development points to on-campus involvement as one important factor in success, including grades and persistence to the second year, particularly among students who do not live on campus, students who work, students of color, and students who are less prepared academically. See for example Deil-Amen (2011); Kuh et al. (2008); Pike, Kuh, and Massa-McKinley (2008); Pretlow, Jackson, and Bryan (2020).

<sup>5.</sup> Internal characteristics such as motivation and a sense of self-efficacy are correlated with student success. Self-efficacy, or the evaluation of one's ability to succeed, has been identified as a strong predictor of GPA and credit accumulation. See Beachboard. Beachboard. Li. and Adkison (2011): Braxton (2000); Cooper (2014); Duckworth, Peterson, Matthews, and Kelly (2007); Zajacova, Lynch and Espenshade (2005).

When it comes to self-efficacy and access to resources, 87 percent of respondents said they had the skills necessary to succeed in college, and 85 percent said they had the necessary support. Similarly, 86 percent believed they had the access to the academic resources they needed. The ratings were a bit lower regarding financial resources, with just over half of respondents agreeing that they had access to the financial resources they needed. About 61 percent of participants reported that they were motivated to finish college. About 85 percent of respondents indicated that they had decided on a major and a career path.

Transfer rates were higher in this project than in other MDRC studies, as reflected in both the student survey findings and in the administrative data collected as part of the RCT (see Chapter 3). Approximately 13 percent of respondents indicated that they had transferred to a different college since their initial college enrollment. When describing reasons for their transfer, respondents primarily indicated that they transferred due to access to transportation and wanting to enroll in classes closer to home. Other reasons for transfer included financial considerations or wanting to enroll in a different program of study.

Program group survey respondents who were not enrolled in college at the time the survey was fielded were encountering several barriers, principally those related to the ability to meet basic needs: 52 percent of participants ranked finding reliable transportation to school as one of their top three barriers to enrollment, and 40 percent faced challenges in paying for transportation. Approximately 29 percent of respondents listed paying rent as a barrier, and 22 percent said the need to spend more time at work was a barrier to their continued enrollment. Over 75 percent of participants indicated that they held a job, with more than half of all respondents working 20 or more hours per week. Taken together, these issues reflect the fact that basic needs were a challenge for this population and affected their ability to continue their education.

These findings were echoed in student focus groups. Students frequently identified financial issues as barriers to success; transportation issues were also a common refrain. Students also struggled with motivation, organization, and study skills. As one student said, "The biggest struggle I face is not letting things get me down or into a depressed state of mind." Several students said that adapting to the college environment, with "faster paced classes" and "needing to manage my study time," was also a challenge. Others talked about mindset being important: "I have to give it all I can," said one. "Nothing can keep me from succeeding," said another.

The survey and focus group findings underline an important consideration for both the Detroit Promise Path program and for other college-access programs in Detroit. Students highly valued the assistance from DPP and their relationships with their coaches. Yet financial barriers remained significant: Many students reported that they did not have sufficient financial resources to complete college and said cost concerns were a large barrier to their enrollment. A large segment of the respondents also reported working more than part time, which affected their ability to take courses and make progress toward a degree. Structural barriers, most notably the lack of reliable, organized regional transit, also had an impact on students' continued enrollment.

# Effects on Students' Academic Outcomes

his chapter presents findings on the estimated effects of the Detroit Promise Path (DPP) program on students' academic progress and college completion rates during the three years after they entered the evaluation. This study estimates the value-added of the new services offered by DPP over and above the Detroit Promise scholarship and a college's typical support services.

## ABOUT THE EVALUATION

As discussed earlier, this evaluation includes two cohorts of students who had fully completed the Detroit Promise scholarship process between 2016 and 2017. Through the process of random assignment, 1,268 students were enrolled into the study; 829 were assigned to the program group and 439 were assigned to the control group. The study examines the effect of offering students the chance to participate in DPP, knowing that some of them would not take advantage of this offer. Stakeholders, for example, the Detroit Regional Chamber, cannot (nor do they wish to) force students to participate in DPP. Understanding the effect of the offer to participate represents what stakeholders can reasonably expect to achieve with the program.

To estimate this effect, the outcomes of *all* students who were offered DPP (the program group), whether or not they enrolled, are compared with the outcomes of all students who were offered the Detroit Promise scholarship only (the control group). That is, the analyses estimate the effect of the "intent-to-treat." This context is important for interpreting the results because around one-quarter of the students who were offered DPP did not enroll in college in the first year, and received no or very limited DPP services, and therefore probably didn't benefit from the program. Even so, these students are part of the study's analysis sample. They received initial email outreach from the DPP coaches as well as some follow-up text messages; however, they did not receive the bulk of DPP program services. For instance, they did not see a coach or receive financial incentives, as they were not enrolled in school.

In any intent-to-treat analysis, some program group members do not receive program services; that's to be expected. In this study, however, the proportion of program group members who did not receive program services was higher than in most other such evaluations by MDRC.

There were two reasons for this. First, in most of MDRC's postsecondary education evaluations, eligible students are actively recruited before agreeing to participate in the program and study. But this was an opt-out study, meaning all Detroit Promise scholarship applicants were randomly assigned.¹ Consequently, in this study, participants did not have to express interest in the add-on services of Detroit Promise Path in order to join. A major benefit of this approach is that the study results are more generalizable, meaning that they apply to nearly all Detroit Promise scholarship applicants, not to a subset who expressed interest in the program. The approach also met two of the Detroit Regional Chamber's goals: to make sure that all students were included in program outreach, rather than just those who sought out assistance, and to make the sign-up process as easy as possible. A potential drawback of the opt-out approach is that because students did not actively elect to be part of the study and the new program, some students were not interested and therefore were less likely to engage in the program and benefit from it.²

The second reason a relatively high proportion of program group members did not interact with the program relates to the timing of study enrollment. In most of MDRC's studies in postsecondary education, eligible students have already matriculated when they join an evaluation—that is, they have been admitted to college, have selected classes, and are recruited in person on campus. In contrast, random assignment in this study occurred behind the scenes, during the summer before school started; many students signed up for the program when they had registered for college but had not yet enrolled in classes.

Because of these two elements of the study design, the sample includes a large number of students who signed up for the scholarship but never actually enrolled in college. These students' outcomes are all reported in the analyses as zeroes, as they were not enrolled or accumulating credits. These zeroes draw the overall outcomes downward in both the program group and the control group.

#### SUMMARY OF THE MAIN EFFECTS

To assess the success of the program, three primary outcomes were prespecified in this study: enrollment, credits earned, and degrees earned. Table 3.1 presents these outcomes at the end of three years.

Over the three years of the program, DPP helped students in the program group make more progress in higher education compared with students in the control group. The program had positive effects on the numbers of semesters enrolled and credits earned. However, it did not lead to additional credential completion at the three-year mark.<sup>3</sup> Thirty percent of program

<sup>1.</sup> Students had the option to request not to be in the study during the application and informed consent process. However, no students chose to do this.

<sup>2.</sup> This may accurately reflect real-life take-up rates, however.

<sup>3.</sup> The main findings are similar even after adjusting the p-values for multiple hypothesis testing. Appendix Table B.1 presents p-values that have been adjusted using the approach described in Westfall, Young, and Wright (1993).

**TABLE 3.1** Three-Year Academic Outcomes Summary

	Program	Control		
Outcome	Group	Group	Difference	P-Value
Average number of semesters enrolled	2.9	2.5	0.4***	0.002
Average number of semesters enrolled, categorical <sup>a</sup>				
0	18.2	20.1	-1.9	0.417
1 - 2	32.6	40.5	-7.9***	0.005
3 - 4	19.2	17.5	1.8	0.436
5 - 6	30.0	21.9	8.1***	0.001
Total credits earned	17.1	13.5	3.7***	0.001
Earned a credential (%)	7.2	6.8	0.4	0.771
Sample size (total = 1,268)	829	439		

SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score. Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment

Credential measures include three full academic years of data (in other words, fall, spring, and summer for three full years). Enrollment and credit measures include these same data except the final summer session (in other words, Year 3 summer is not available).

<sup>a</sup>Average number of semesters is the primary outcome in this analysis. The categorical version of this outcome is a complementary measure added to aid the interpretation of the primary measure.

group students enrolled in five or six semesters compared with 21.9 percent of control group members, for an estimated impact of 8.1 percentage points. Program group students also earned significantly more credits than the control group students, on average—17.1 credits compared with 13.5 credits, respectively, a 27 percent increase—for an estimated impact of 3.7 credits. At the end of three years, there was not a substantial effect on earning a degree or certificate: 7.2 percent of the program group earned a degree or certificate compared with 6.8 percent of the control group.

## OVERALL PROGRAM EFFECTS ON ACADEMIC OUTCOMES

## **Enrollment**

DPP helped more students enroll and persist in college. Figure 3.1 presents enrollment levels for each research group during the three-year follow-up period.<sup>4</sup> In the first semester, 65 percent

<sup>4.</sup> Appendix Table B.3 provides additional information for the measures discussed in this section.

100 Program
Control
I 90% Confidence Interval

8.3\*\*\*

2.8

4.1

4.1

4.1

4.1

FIGURE 3.1 College Enrollment Rates by Semester

Semester 1

SOURCE: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

Semester 4

Semester 5

Semester 6

Semester 3

NOTES: Estimates are adjusted by site, cohort, ACT and/or SAT score, and the interaction of gender and race/ethnicity.

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

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

The total sample size is 1,268 (program group = 829, control group = 439).

Semester 2

of the program group students enrolled in college. During that same semester, 61 percent of control group students enrolled in college. The 4.4 percentage point difference represents the estimated impact of DPP on first-semester enrollment (p-value = 0. 115). In Semesters 2 and 3, the estimated impact grew to 7.6 and 8.3 percentage points, respectively, with a smaller estimated effect beginning in Semester 4. In Semesters 5 and 6, the estimated effect was 4.1 percentage points (p-value = 0. 114).

As is typically seen in postsecondary evaluations, enrollment dropped steadily over the follow-up period. There was a substantial drop between the second and third semesters of about 18 percentage points for both research groups: Program group enrollment dropped from 63 percent to 45 percent, and control group enrollment dropped from 55.4 to 36.7 percent. For 97 percent of the study sample, this time period represents the transition period between the end of students' first spring semester and the start of their second fall semester (in other words, the start of the second academic year). Such drop-offs during this time frame are quite common. Some of the reasons identified in the research include financial aid issues in a new FAFSA year, students

<sup>5.</sup> Pretlow, Jackson, and Bryan (2020); Kuh, Cruce, Shoup, and Gonyea (2008).

leaving school to work, students losing motivation or a connection to the college during the summer, and students experiencing adverse life events that prevented reenrollment.<sup>6</sup> In an attempt to stave off some of these issues, the DPP program model included a component that encouraged students to continue to make progress toward their goals over the summer. The program successfully increased summer enrollment in this period (more on this below) and maintained the enrollment impact from Semester 2 to Semester 3. However, since both research groups saw a sizeable drop in this time frame, it suggests that there is more to be done to help students through this transition. By the end of the follow-up period, 29.7 percent of the program group and 25.6 percent of the control group were still enrolled in college.

Looking at a distribution of the number of semesters enrolled provides additional insights. As shown in Table 3.1, 60.6 percent of the control group enrolled in 0, 1, or 2 semesters compared with 50.8 percent of the program group. In other words, the program induced an additional 9.8 percent of the program group students to enroll in 3 or more semesters. In fact, the largest increase is seen in enrolling in 5 or 6 semesters (8.1 percentage points). This implies that the program helped more students stay engaged with college longer, a first step in helping students make academic progress.

#### Summer Enrollment

DPP nearly doubled the proportion of students enrolling in summer courses during the first program summer (that is, the summer between Semesters 2 and 3). As mentioned, coaches encouraged students to continue to make progress toward their goals over the summer, either by enrolling in summer courses or by participating in a local summer jobs program called Grow Detroit's Young Talent. Among the program group, 17.9 percent enrolled in courses compared with 9.8 percent of the control group, for an estimated impact of 8.1 percentage points. During this period, program group members also earned 0.7 credits, on average, compared with 0.3 credits in the control group (see Appendix Table B.2).

These impacts do not continue into the second program summer (that is, the summer between Semesters 4 and 5). Taking a closer look at these findings by calendar year (not shown), it is apparent that the control group began enrolling in summer courses at higher levels in summer 2018. This is likely because of a change in federal policy to reinstate year-round Pell (also known as Summer Pell) in the 2017-18 academic year. Since much of DPP's early summer impacts were due to program messaging that summer tuition was covered by the Detroit Promise scholarship, analogous messaging about year-round Pell covering tuition costs sent out by the colleges to all students likely contributed to the higher control group summer enrollment rates.

#### **Full-Time Enrollment**

DPP induced more students to enroll full-time throughout the first two years. Estimated impacts range from 4.6 to 11.3 percentage points. The Detroit Promise scholarship—which both research

<sup>6.</sup> Feldman (2017); Bailey et al. (2016); Bailey, Jaggars, and Jenkins (2015).

groups were eligible to receive—had a nominal full-time enrollment requirement, giving both research groups an incentive to enroll full time. (As a reminder, students were told to enroll full time, but they did not lose their scholarship if they dropped below full-time status.) While the additional components in the DPP group were not tied to full-time enrollment, the combination of coaching support and additional resources made full-time more salient and feasible for a portion of students (see Figure 3.2). In Semesters 5 and 6, the estimated effect begins to shrink (2.2 percentage points and 0.8 percentage points, respectively).

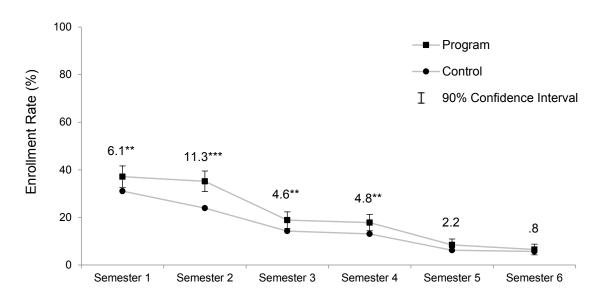


FIGURE 3.2 College Full-Time Enrollment by Semester

SOURCE: MDRC calculations using data from the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, cohort, ACT and/or SAT score, and the interaction of gender and race/ethnicity.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

The total sample size is 1,268 (program group = 829, control group = 439).

The proportion of both groups enrolling full time dropped over time. While this is partly due to overall enrollment declining, it also appears that the proportion of enrolled students attending full time dropped from year to year. For example, more than half of enrolled program group members were enrolled full time in Semesters 1 and 2. Only about a quarter of enrolled program group students were full time in Semesters 5 and 6.<sup>7</sup>

<sup>7.</sup> Roughly 10 percent of students in any given semester were enrolling at a college other than the college they indicated at the time of random assignment. Due to data limitations, full-time enrollment data are only available for students who were enrolled at their original college of random assignment; unlike enrollment and graduation status, the National Student Clearinghouse (NSC) data do not contain full-time enrollment or credits. As a result, the outcome levels for full-time enrollment are underestimated. These underestimates affected the program group and control group roughly equally.

## Credit Accumulation

DPP increased cumulative credits earned throughout the six-semester follow-up. Figure 3.3 represents cumulative total credits earned (both developmental and college-level) during Semesters 1 through 6. The effect on cumulative credits earned grew each semester. At the end of three years, the program group was ahead by 3.7 credits, on average, representing a 27 percent increase over the control group average of 13.5 credits.8

20 3.7\*\*\* 3.4\*\*\* 18 2.9\*\*\* 16 14 2.4\*\*\* Cumulative credits 1.8\*\*\* .6\*\*\* 6 4 2 I 90% Confidence Interval Program group Control group 0 Semester 1 Semester 2 Semester 3 Semester 4 Semester 5 Semester 6

FIGURE 3.3 Cumulative Credits Earned by Semester

SOURCE: MDRC calculations using data from the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, cohort, ACT and/or SAT score, and the interaction of gender and race/

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

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio. Total sample size is 1,268 (program group = 829, control group = 439).

This impact is meaningful, as credit accumulation is an important indicator of academic progress. At the same time, the overall level of credits earned by both groups after three years was quite low. If all students were consistently enrolled in college for three years, one would expect the average credits earned to range from 36 credits (for part-time students) to over 60 credits (for full-time students). The relatively low levels of average credits earned in this study reflect

<sup>8.</sup> As with full-time enrollment, data on credit accumulation are not available from NSC. As a result, the outcome levels for credits earned were underestimated. These underestimates affected the program and control group roughly equally.

the large number of students who never enrolled in college (roughly 19 percent) or dropped out after 1 or 2 semesters (about 35 percent).

#### Graduation

After three years, there was not a substantial effect on graduation. As shown in Table 3.2, after three years (or six semesters), 7.2 percent of the program group earned any degree or certificate compared with 6.8 percent of the control group. Most of the credentials earned were associate degrees, with the remainder largely comprised of certificates. It is worth noting that a small portion of both research groups attended four-year institutions during this time. The percent ranged from roughly 3 percent to 6 percent, with no discernable differences between the research groups (see Appendix Table B.3).

**TABLE 3.2** Credentials Earned

Outcome	Program Group	Control Group	Difference	P-Value
Earned a credential from any college				
Semester 1	0.1	0.0	0.1	0.382
Semester 2	0.3	0.7	-0.4	0.426
Semester 3	0.8	0.7	0.2	0.745
Semester 4	2.6	2.4	0.2	0.860
Semester 5	4.0	3.6	0.5	0.689
Semester 6	7.2	6.8	0.4	0.771
Highest credential earned				
Certificate	1.7	2.5	-0.8	0.340
Associate's degree	5.2	4.0	1.2	0.312
Bachelor's degree or higher	0.3	0.0	0.3	0.160
Missing degree type	0.0	0.2	-0.2	0.160
Sample size (total = 1,268)	829	439		

SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

Given DPP's positive effects on enrollment and credit accumulation, it is worth considering why there were no positive effects on credential completion throughout three years. It may be that the program was not comprehensive enough to help all students, especially given the high level of financial need students expressed during surveys and interviews. For example, as shown above, roughly half of students in the program group either did not enroll in college at all or dropped out after one or two semesters. For students who did stay enrolled, the high rates of part-time enrollment may mean that the three-year follow-up period of this study was too soon to see degree impacts. This might be especially pronounced for students who enrolled in college requiring remedial or developmental courses, as these courses lengthen the time it takes for students to earn a degree.

To provide some insight into how close students may be to earning a degree, Table 3.3 presents the status of students at the end of the follow-up period. The top panel shows student enrollment information for the roughly 7 percent of the study sample who earned a credential by the end of Semester 6. Most of these students were enrolled in a two-year college, suggesting that they had either just finished their credential or were continuing to work on additional credentials (for example, they may have earned a certificate and were now working toward an associate's degree).

The second panel shows the status of the roughly 93 percent of the sample who had not earned a credential in this time frame. A majority of both research groups were no longer enrolled in college during the final study semester (68.5 percent of the program group and 72.2 percent of the control group). However, 24.5 percent of the program group and 21.5 percent of the control group were still enrolled in college. Roughly 5 percent of both groups were enrolled in a four-year college and the remainder were enrolled in a two-year college. Looking at credit accumulation for students enrolled in a two-year college (where credit information was available) shows that 6.9 percent of the program group had earned 48 or more credits compared with 5.0 percent of the control group, for a difference of 1.9 percentage points. These students were near the 60-credit associate's degree threshold and were still enrolled, so they provide a rough sense of who might earn a credential in the next year. MDRC is seeking additional funding to track students' longerterm outcomes to see whether, as degree receipt increases in later years, there is an impact of being offered Detroit Promise Path.

## Subgroup Findings

The above presented the overall average effect of DPP on students' academic progress and completion. As part of an exploratory analysis, Figures 3.4 and 3.5 present DPP's effects on credits and credentials earned, respectively, for various subgroups of students. Subgroups include students living with a parent who had earned a bachelor's degree (or not), students who completed the scholarship application before or after the deadline (as a measure of risk), study cohort, and gender. DPP appears to be effective at increasing credits earned for all of these groups. As was seen for the overall sample, there were no discernable effects on earning a credential for any of these subgroups.

Also of interest, given the variation in program implementation, are the effects of the program on credits and credentials earned by college, as shown in Figures 3.4 and 3.5. Because the sample sizes at College 2 through College 5 are so small, ranging from 105 students to 256 students, as shown in Appendix Tables B.4 and B.5, the estimates presented here are imprecise—notice the wide confidence intervals. However, the amount of variation in the college-specific effect estimates on both outcomes is substantial enough to consider that it may represent real differences in the effectiveness of the program across the colleges. With respect to credits earned, four colleges had positive effect estimates, and one college had a negative effect estimate. The college with the negative effect estimate is the college that struggled with program implementation and had lower levels of program participation. This lower level of program quality and fidelity to the model may explain the differences in credits earned here. See Appendix Tables B.4 and B.5 for more detailed information on outcomes by college.

**TABLE 3.3** Student Status at Three Years

	Program	Control		<b>-</b>
Outcome (%)	Group	Group	Difference	P-Value
Earned a credential	7.2	6.8	0.4	0.771
Enrolled in a 4-year college (during final study semester)	0.8	0.6	0.2	0.726
Enrolled in a 2-year college (during final study semester)	4.6	4.0	0.6	0.598
Not enrolled (during final study semester)	1.8	2.2	-0.4	0.655
Has not earned a credential	92.8	93.2	-0.4	0.771
Enrolled in a 4-year college (during final study semester)	5.3	4.5	0.9	0.503
Enrolled in a 2-year college (during final study semester)	19.2	17.0	2.2	0.329
Earned 48 credits or more	6.9	5.0	1.9	0.171
Earned 36 - 47 credits	3.5	2.6	1.0	0.336
Not enrolled (during final study semester)	68.5	72.2	-3.8	0.160
Sample size (total = 1,268)	829	439		

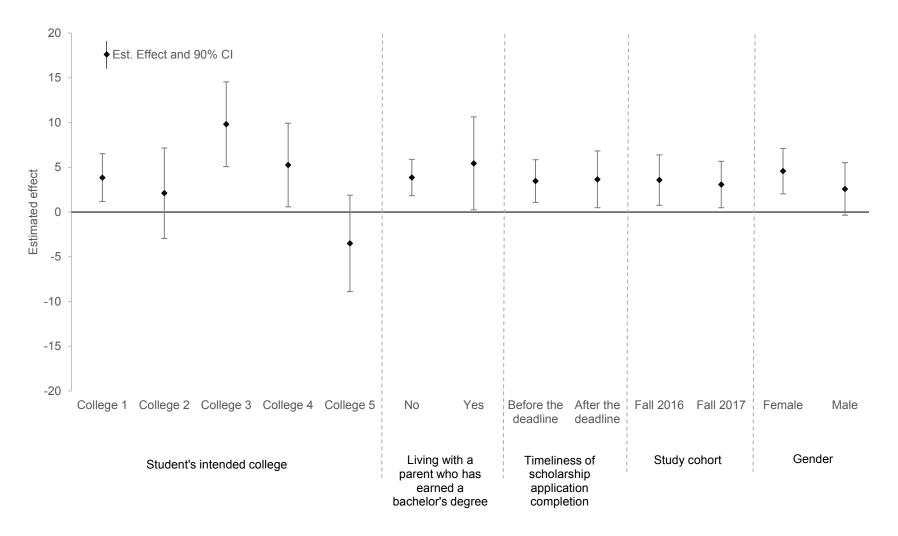
SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score. Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

Among students without a credential at three years, the outcomes for the measures enrolled in a 4-year college, enrolled in a 2-year college, and not enrolled sum to more than the total share of students without a credential. This is because two students enrolled in both a 2-year and a 4-year college during their final study semester.

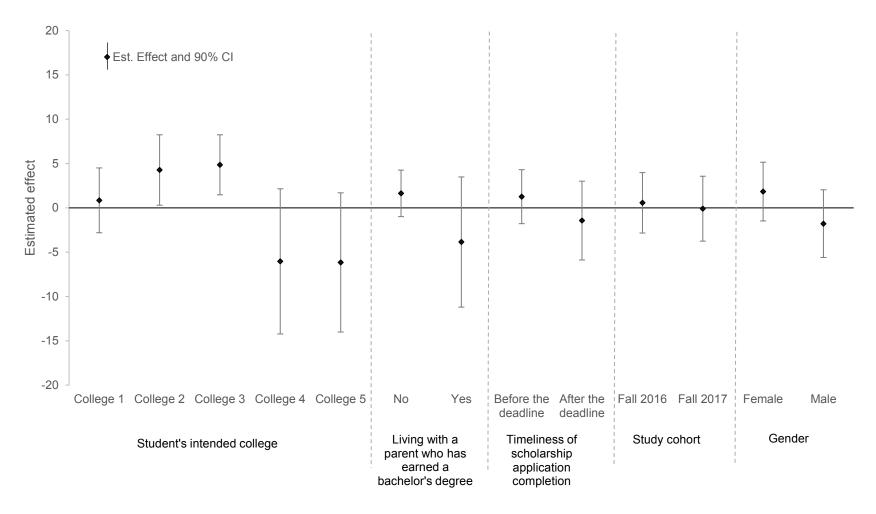
FIGURE 3.4 Cumulative Credits Earned After Three Years, by Subgroup



SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges. NOTES: Estimates are adjusted by site, cohort, ACT or SAT score, and the interaction of gender and race/ethnicity. CI = confidence interval.

The total sample size is 1,268 (program group = 829, control group = 439).

FIGURE 3.5 Credentials Earned After Three Years, by Subgroup



SOURCES: MDRC calculations using data from the National Student Clearinghouse and the Detroit Promise Path colleges. NOTES: Estimates are adjusted by site, cohort, ACT or SAT score, and the interaction of gender and race/ethnicity. CI = confidence interval.

The total sample size is 1,268 (program group = 829, control group = 439).

# The Cost of the Program

his section calculates the cost of the Detroit Promise Path (DPP) program. Cost analysis quantifies the resources used for a program's implementation along with their associated prices to estimate the cost of implementing the program. This information can inform decisions by policymakers, administrators, and practitioners interested in replicating such a program to similar effect. For those interested in replicating this program model, these cost analyses can serve as a useful starting point.

MDRC's analysis begins with calculating direct costs, or those directly related to the operation of the program,<sup>1</sup> such as administration and staffing and providing student support. Table 4.1 breaks down direct costs into three main categories: administration and staffing, coaching, and monthly student financial incentives.

TABLE 4.1 Direct Cost of the Program per Program Group Member per Year

Program Component	Cost (\$)	Percentage of Total (%)
Administration and staffing		
Program administrators	114	17.6
Other costs	28	4.3
Subtotal	142	21.9
Coaching	353	54.5
Financial incentives	153	23.6
Total Direct Cost	648	100.0

SOURCE: MDRC calculations based on program expenditure data from the Detroit Regional Chamber.

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

Program costs are based on total costs during the first three years of the program. The discount rate used for program costs is 3 percent. All costs are shown in constant 2020 dollars.

<sup>1.</sup> All direct cost categories include related facilities and overhead costs.

The total direct cost per program group student per year was \$648, for a total of \$1,944 per student over the three years of the program. (This total includes program group members who did not enroll.) Direct costs make up the bulk of the total cost of the program.

About 22 percent of the direct cost of the program—\$142 per program group student per year—comes from administration and staffing: the fully dedicated program manager who oversees the operation of the program, supervises coaches, and provides quality control. Other professional and contractual services, equipment, and materials (in the table labeled "other costs") are also included in this category.

Coaching activities, including interactions with students, data management, meetings and training, and program development, make up 55 percent of the program's direct costs—about \$353 per program group member per year. The financial incentives of \$50 per month per student, contingent on program participation, make up 24 percent of the direct costs, averaging \$153 per program group member per year (given the total number of incentives, on average, each student earned).

These per-student cost averages are lower than they would have been if all students had stayed enrolled for the duration of the program. If these same direct costs were measured per *enrolled* student per year, they would be about three times as high as the dollar amounts above. For example, when more students stay enrolled in school, more coaches need to be hired to maintain desired caseload levels. Appendix Table C.1 presents more information and provides additional cost calculations.

## **TECHNICAL ASSISTANCE COSTS**

MDRC staff provided technical assistance to the Detroit Regional Chamber, particularly during the startup phase. MDRC staff spent a total of approximately 815 hours on technical assistance that was not associated with the research study evaluation. Using national salary and benefit averages for Education Administrators—Management and Technical Consulting from the Bureau of Labor Statistics, this cost was approximately \$62,000, or \$21 per student per year. This cost is not included in the total cost presented but should be kept in mind for colleges looking to replicate the program. If included, the direct cost of the program per student would increase by 2.3 percent per year on average in the first three years. However, these costs are startup costs that would not continue indefinitely: 70 percent of these costs occurred in the first year, with only 2 percent coming in the third year.

## **BASE, INDIRECT, AND TOTAL COSTS**

Table 4.2 breaks down the base cost, indirect cost, and total cost of the program. Base costs refer to the "usual" college services provided to students who are not in the DPP program—for

<sup>2.</sup> U.S Bureau of Labor Statistics (2020).

**TABLE 4.2** Net Cost of Education per Sample Member per Year from the College Perspective

Feature (\$)	Program Group	Control Group	Difference (Net)
Direct cost: cost of primary program components <sup>a</sup>	648	0	648
Base cost: cost of credits attempted in the absence of the program	3,027	3,027	0
Indirect cost: cost of additional credits attempted due to the program	366	0	366
Upper bound: marginal cost equal to average cost <sup>b</sup>	732	0	732
Lower bound: marginal cost equal to zero <sup>c</sup>	0	0	0
Indirect revenue: tuition and fees (to college)	174	0	174
Upper bound: marginal cost equal to average cost <sup>b</sup>	4,233	3,027	1,206
Lower bound: marginal cost equal to zero <sup>c</sup>	3,501	3,027	474

SOURCE: MDRC calculations based on expenditure, transcript, and scholarship data from the Detroit Regional Chamber, and financial and enrollment data from the Integrated Postsecondary Education Data System (IPEDS). In-district tuition and fees are from the Michigan House Fiscal Agency.

NOTES: Tests of statistical significance were not performed.

Rounding may cause slight discrepancies in sums and differences.

Program costs exclude external research costs.

Credits attempted include all college-level and developmental credits attempted.

example, the cost of instructors, buildings, college administration, and so on. The total base cost provides context for interpreting the program's direct cost. It was approximately \$3,027 per student per year and is calculated by multiplying the cost per credit, as reported by the federal Integrated Postsecondary Education Data System (IPEDS), times the average number of credits the control group attempted per year. This means that the direct cost of the DPP program represents an increase in cost of about 30 percent over the status quo.

*Indirect costs* are those that result from changes in student behavior—in this case, the additional cost resulting from the DPP program causing students to stay enrolled and take more courses. Indirect costs are estimated based on the average number of additional credits attempted by the program students compared with the control group students. This analysis uses three approaches:

A lower-bound estimate assumes that the indirect costs equal zero—that is, that the college incurs no additional costs when more students enroll and/or when students attempt additional credits.

<sup>&</sup>lt;sup>a</sup>Direct cost as calculated in Table 4.1

b"Marginal cost equal to average cost" represents the case in which existing college resources cannot be leveraged to accommodate changes in credits attempted, therefore incurring additional costs to the college. The additional costs to the college, or the marginal cost of the additional credits attempted, is approximated as the average cost per credit attempted at the institution.

<sup>&</sup>lt;sup>c</sup>"Marginal cost equal to zero" refers to the ability of existing college resources to absorb the cost of additional credits attempted by the program group without incurring new costs to the college.

- An upper-bound estimate is based on the average cost per credit attempted (as reported by IPEDS), including the cost of instruction, academic services, student services, and scholarships. It is unlikely that every additional credit attempted by a student costs the college as much as the average credit attempted, and it is also unlikely that there is zero cost to the college for additional credits attempted (before tuition revenues are considered).
- An average of the previous two estimates—the midpoint between the upper and lower bounds—is therefore used as the primary estimate of indirect costs: \$366 per program group student per year.

It is worth noting that from the college perspective, indirect costs are offset by increased revenue in the form of tuition and state funding support associated with the additional enrollments and credits attempted. Part of the indirect cost is covered by additional Detroit Promise scholarships extended to students who enrolled because of the program when they would not have otherwise. This is calculated by comparing the scholarship funds expended for students in the control group with the funds expended for those in the program group. The Detroit Regional Chamber ended up paying additional scholarship costs of about \$150 per program group student per year as a result of improvements in enrollment and credit attempts (about two-fifths of the total indirect cost). With tuition and financial aid revenue from this and other sources, the indirect cost to the college from additional credit attempts was offset by \$174 per program group per year. However, from a societal perspective, the additional resources used when these students take additional courses are an indirect cost.<sup>3</sup>

The total costs per group member are presented in the final lines of Table 4.2. The total cost from the college perspective is calculated by adding the direct cost, base cost, and indirect cost, and subtracting the indirect (tuition) revenue.<sup>4</sup> The total college-perspective cost per program group member per year was \$3,867, compared with \$3,027 to educate the average control group member. The net cost is defined as the difference between the total program group cost and the total control group cost. The college-perspective net cost was \$840 per program group member per year, representing a 28 percent increase.

## **COST-EFFECTIVENESS**

Table 4.3 breaks down the cost-effectiveness of DPP from the college perspective. The program's average net cost over three years was \$2,520 per student. This resulted in students earning an extra 3.7 credits, on average, and a near zero effect on degree completion.

<sup>3.</sup> There is another indirect cost to society via the additional hours the student spends on credits they took because of the program. These student-time costs are not calculated here but might include time spent studying outside of class, time spent commuting to class, and foregone wages. Societal benefits from the program are also not calculated.

<sup>4.</sup> State performance funding formulas can also provide an estimate of additional revenue to the college generated by increasing course attempts. However, the Michigan formulas applied to this program's impacts yield less than a dollar per student in additional revenue transferred to colleges.

**TABLE 4.3** Cost-Effectiveness Values from the College Perspective

Outcome	Program Group	Control Group	Difference (Impact)
Direct cost of primary components (\$)	1,944	0	1,944
Base cost of credits attempted in the absence of the program (\$)	9,081	9,081	0
Indirect cost of additional credits attempted due to the program (\$)	1,098	0	1,098
Indirect revenue from tuition/additional credits attempted due to the program <sup>a</sup> (\$)	522	0	522
Cost per group member over three years (\$)	11,601	9,081	2,520
Earned a degree (%)	7.2	6.8	0.4
Cost per degree earned (\$)	161,125	133,551	27,574
Total credits earned	17.1	13.5	3.7
Cost per credit earned (\$)	678	673	6
Incremental cost per additional credit earned (\$)			681
Sample size (total = 1,268)	829	439	

SOURCE: MDRC calculations from program-specific participation and budget data, transcript data, and financial and enrollment data from Integrated Postsecondary Education Data System (IPEDS).

NOTES: Rounding may cause slight discrepancies in sums and differences. All dollar values have been rounded to the nearest whole dollar.

Tests of statistical significance have only been performed on outcome measures not costs. All outcomes are cumulative over three years. For these measures, a two-tailed t-test was applied to differences between research groups. Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10

<sup>a</sup>This revenue represents transfers to the college from students and government via tuition, financial aid, and scholarships. It is not a societal cost offset or benefit, but is included here to represent the college perspective.

A cost-effectiveness analysis expresses the cost of interventions as cost per unit of a desired outcome. The status quo and program cost per outcome can be compared with each other, and the incremental cost per additional outcome caused by the program can be compared to that of other programs. The latter contrast might be more useful because comparing programs with similar impacts gives more than one estimate of the cost of achieving those impacts. This costeffectiveness analysis considers the cost per degree earned within three years and the cost per credit earned. These estimates spread costs across all students who were offered the program, including those who enrolled less than full time, dropped out, or graduated.

As noted above, Table 4.3 shows the cost-effectiveness calculations for the program from the perspective of the college over three years. The average cost per degree for the program group and the control group is the cost per group member divided by the percentage of those who received degrees. As shown in the table, the cost per degree earned was \$27,574 more for the program group. This means the program was less cost-effective for this outcome compared with the status quo. Table 4.3 also shows the average credits earned in three years for each group. The

average cost per credit earned for each group is calculated by dividing the cost per group member by the average credits earned, resulting in a \$6 higher cost per credit earned for the program group than the control group. Finally, the incremental cost per additional unit of each outcome is presented. Since there was no significant impact on degrees, this number was not calculated. For credits earned, each of the additional 3.7 credits earned per student cost an additional \$681 from the college perspective.

Unsurprisingly, these findings show that using the DPP program to increase graduation rates was not cost-effective at the three-year point because the estimated effect on degree completion was near zero. The DPP program was not cost-effective per credit earned compared with the status quo (which has lower average credits earned). However, if increasing credits earned is a goal, Detroit Promise Path may be a competitive option compared with other programs. Its relatively low cost point compared with other postsecondary interventions may make it appealing for those seeking to improve enrollment and credit accumulation rates for students.

# Conclusions and Lessons for the Field

he Detroit Promise Path builds evidence-based student support components into an existing College Promise scholarship program. Over the three years of this study, DPP helped more students make progress in college: Students in the program enrolled in more semesters and earned more credits, compared with those who were offered the scholarship alone. These are valuable improvements. At this point, however, there is no evidence of an increase in degrees earned. MDRC hopes to secure funding for longer-term follow-up of this study population in future years to continue tracking students' graduation rates.

Programs that produce large improvements in college graduation rates have been identified, but they are rare. Detroit Promise Path's impacts on students' overall enrollment patterns and credit accumulation are among the larger effects MDRC has found in its randomized controlled trials of such programs. Offering DPP is a strong step toward keeping students enrolled and earning credits, yet there is more to be done to help them graduate within three years. Nearly all students interviewed in the study expressed a highly positive view of DPP and of the help they received from coaches in particular. Yet these students continued to face great barriers to success, including financial uncertainty, inadequate academic preparation for college-level work, unreliable public transportation to school, and competing responsibilities at school and at home, among other challenges. Many of these issues will require greater systemic efforts with collaboration from stakeholders across policy domains to effect meaningful change.

One significant issue that merits further research and experimentation is improving fall-to-fall persistence. In the DPP student population, as in many community colleges across the country, enrollment rates drop precipitously from one academic year to the next. While the DPP program had a positive impact on students' likelihood of staying in school, the overall retention rates remained quite low. There is more to understand about the confluence of factors—from financial aid issues to academic under-preparedness to social disengagement from college life over the summer or "summer melt"—that might inform stronger interventions that could help students stay enrolled. While there has been some research into summer melt between high school and college, the continued issue in subsequent college years merits further investigation. In addition, there may be policy changes that can help Detroit Promise students—and all students in Detroit—stay in school.

One element of DPP may explain the positive impacts on credit accumulation without a corresponding impact on graduation rates at the three-year mark. While the Detroit Promise scholarship encourages students to enroll in college full time, students don't lose their scholarship if they drop below full-time status. As shown in this report, students frequently enrolled part-time over the course of the study, making it very difficult to graduate within two or three years, even though they continued to accrue college credits. Instituting a full-time enrollment requirement has clear downsides. Many students have competing priorities such as work and child care. Serving only full-time students would certainly help improve the time it takes to earn a degree within the program, but doing so would cut out many of the highest-need students who stand to benefit the most from the program. For this reason, the Detroit Promise scholarship's staff chose not to enforce a full-time requirement. Programs seeking to learn from this study may want to weigh the relative benefits and drawbacks of encouraging rather than enforcing full-time enrollment.

## **LESSONS FOR THE FIELD**

College Promise programs and other college, placed-based scholarships—interventions aimed at improving college access by making tuition free—have grown in popularity in recent years. The Detroit Promise Path shows that these programs can also be leveraged to help students stay in school and earn more credits. What can policymakers, college practitioners, advocates, and College Promise program leaders learn from the Detroit Promise Path?

- It's not just about access. Students also need help with college progress and college success. The Detroit Promise Path program model added evidence-based components to the Detroit Promise scholarship to help meet students' needs once they enrolled. These components made a difference for students who might otherwise have enrolled but not persisted in college with the Promise scholarship alone.
- Externally managed and staffed programs must build trust and buy-in on campus. Unlike many college advising or coaching programs, an off-campus third party organization runs and staffs DPP. At colleges in the study where leadership saw the program's value, DPP operated smoothly and students got a robust coaching relationship on top of their usual college experience. At one college, however, where the program was less popular with the leadership, the program did not run smoothly, and the coach was ultimately moved off campus and met with students in community centers or other public spaces. As a result, this college did not experience the same outcomes as the other schools did.
- Students want, and need, individualized help and a trusting relationship. In DPP, coaches reach out to students "cold," introducing themselves and encouraging students to set up inperson meetings. More than 90 percent of students in the study responded to this outreach, reflecting a tremendous appetite for support. Throughout the program's three-year duration, students identified their relationship with their coach as the most valuable program component.

- Students continue to face significant financial challenges and other issues that stop them from completing a degree. They need more support—financial, academic, and emotional—from all of the institutions in their lives. Help paying for textbooks, child care, and housing, as well as emergency aid for unexpected expenses like car repairs or medical bills, could have a meaningful impact on students' ability to stay enrolled and graduate on time.
- Succinct and actionable messages help address students' individual circumstances. Text messages and social media were the most effective outreach strategies—students respond to texts and social media posts on platforms they use daily. Making messages short, clear, and actionable led students to complete tasks—for instance, scheduling a coaching appointment or registering for courses. For more complex activities, such as navigating FAFSA verification, an in-person meeting is necessary.
- Continued relationships and active outreach can reengage students. Many students who intended to enroll in college but hit snags—for instance, with complicated financial aid applications—were able to enroll in the following spring semester because of continued outreach from DPP coaches. Having someone in their corner who can connect them with other resources or help them identify time management strategies can help students stay focused and engaged.
- Students are most often derailed by issues outside of college. Despite the best efforts of coaches, many of the serious personal challenges students were experiencing were insurmountable. Students facing food insecurity, lack of transportation, eviction, homelessness, domestic violence, and mental health crises simply cannot prioritize college attendance, for understandable reasons. For high-need student populations, much more than typical campus-based support is required. Stakeholders should take an expansive view of the systemic changes needed to dramatically improve community college graduation rates.

The Detroit Promise Path program model is one way that College Promise programs can build on their college access goals to help students stay enrolled and earn more credits. Yet there's more to be done to help these students get to graduation day within three years.

# **APPENDIX**



# **Supplementary Survey Tables**

## APPENDIX TABLE A.1 Detroit Promise Path Survey Summary, Program Group Respondents Only

Responses	Sample Size	Program Group
College enrollment and aspirations		
Enrolled in the same college since fall 2016 (%):		
Yes	306	83.5
No	306	12.9
Decline to answer	306	3.1
Somewhat and strongly agree with the statements below (%):		
I have decided on a major.	306	84.8
I have decided on a career path.	306	86.7
Readiness and self-efficacy		
Somewhat and strongly agree with the statements below (%):		
I have the skills necessary to succeed in college.	306	86.7
I have the support necessary to succeed in college.	306	84.7
I have the financial resources necessary to succeed in college.	306	53.7
I have access to the academic resouces I need to succeed in college.	306	85.6
I am motivated to finish college.	306	61.4
Students indicated good or extremely good understanding of the following (%):		
Application process	306	66.0
Applying for financial aid	306	66.5
Academic requirements	306	70.0
Choosing classes	306	72.6
Barriers		
On average, how many hours do you work in a typical week?		
Not currently employed	306	23.7
1-10	306	6.6
11-20	306	17.0
21-30	306	23.7
31-40	306	19.3
40 or more	306	9.7
Among those who selected "No" to being enrolled in college:		
Why aren't you enrolled in college this semester? (%):		
Finding reliable transportation	88	52.0
Paying for transportation	88	39.6
Paying for rent	88	29.1
Paying for food	88	4.0
Paying for books, supplies, or lab fees	88	13.5
Finding child care	88	3.5
		(continued)

# **APPENDIX TABLE A.1** (continued)

Responses	Sample Size	Program Group
Paying for child care	88	0.0
Needing to spend more time at work	88	22.4
Finding time to study	88	2.3
Having the skills to succeed academically	88	4.6
Knowing where to go for academic support	88	6.4
College services		
Since starting college, have you met with the following 3 or more times? (%)		
College coach	306	63.7
Academic advisor	306	36.8
Career advisor	306	18.5
College financial aid advisor	306	34.6
Other	306	9.0
Have you discussed any of the following with faculty and staff other than your coach 3 or more times? (%)		
Help with class selection	298	72.7
Academic progress	298	36.4
Graduation requirements	298	41.8
Choosing a major	298	43.9
Career planning	298	40.9
Applying for a job or internship	298	22.3
Financial aid	298	61.6
Other financial challenges	298	20.7
Personal challenges	298	26.4
Help with connecting to other student services	298	15.6
Program feedback		
How do you typically spend the gift card you receive from the DPP? (%)		
Transportation	241	22.4
Housing	241	5.7
Food	241	43.6
Books and other supplies	241	18.8
Child care	241	0.6
Other	241	5.4
Percentage of respondents who found the following services helpful or very helpful:		
Meetings with coach	241	76.1
DPP program as a whole	241	86.1
DPP monthly gift card	241	76.4

SOURCE: The Youth Policy Lab at the University of Michigan survey data and calculations.

# **APPENDIX TABLE A.2** Survey Response Bias in Program Students: Baseline Characteristics, Respondents vs. Nonrespondents

Characteristic	Respondents	Nonrespondents	Difference	P-Value
Gender (%)				
Female	63.0	55.5	7.42	0.035
Male	37.0	44.5	-7.42	0.035
Average age (years)	17.9	17.9	0.03	0.581
Race/Ethnicity (%)				
Black or African-American	77.7	81.9	-4.17	0.154
Hispanic or Latino	14.4	11.3	3.17	0.195
Two or more races	3.9	4.6	-0.65	0.654
Asian, Native Hawaiian, or other Pacific Islander	3.0	1.0	2.00	0.060
White	1.0	1.3	-0.35	0.642
American Indian or Alaska Native	0.0	0.0	0.00	
Does not live with a parent who has a bachelor's degree	75.8	84.1	-8.29	0.005
Sample size (total = 829)	305	524		

SOURCES: MDRC calculations using survey data from the Youth Policy Lab at the University of Michigan and Detroit Promise scholarship application data.

NOTE: One survey respondent is excluded from the table because they were not randomly assigned into the study.

# **APPENDIX TABLE A.3** Survey Response Bias in Program Students: Primary Outcomes, Respondents vs. Nonrespondents

Outcome	Respondents	Nonrespondents	Difference	P-Value
Average number of semesters enrolled	3.9	2.2	1.65	0.000
Average number of semesters enrolled, categorical				
0	6.9	24.8		
1 - 2	21.3	39.1		
3 - 4	23.9	16.6		
5 - 6	47.9	19.5		
Total credits earned	29.2	10.1	19.08	0.000
Earned a credential (%)	15.1	2.5	12.60	0.000
Sample size (total = 829)	305	524		

SOURCES: MDRC calculations using survey data from the Youth Policy Lab at the University of Michigan, the National Student Clearinghouse, and Detroit Promise Path colleges.

NOTE: One survey respondent is excluded from the table above because they were not randomly assigned into the study.

## **APPENDIX**



# Supplementary Academic Outcomes Tables

# Motor City Momentum | 5 3

# **APPENDIX TABLE B.1** Primary Outcomes

	Program Group		Control Group		Estimated Effects			
Outcome	Mean	Standard Deviation	Mean	Standard Deviation	Difference	Standard Error	P-value	Adjusted <sup>a</sup> P-value
Average number of semesters enrolled	2.85	2.13	2.48	2.08	0.38***	0.12	0.0018	0.0060
Total credits earned	17.14	21.80	13.47	19.96	3.67***	1.15	0.0014	0.0060
Earned a credential	7.20	25.74	6.76	25.38	0.44	1.50	0.7710	0.7510
Sample size (total=1,268)	829		439					

SOURCE: MDRC calculations using data from National Student Clearinghouse and transcript data from the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, cohort, ACT and/or SAT score, and the interaction of gender and race/ethnicity.

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

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

#### **APPENDIX TABLE B.2** Summer Enrollment

	Prograi	m Group	Contro	l Group	Estimate	ed Effects	3
		Standard		Standard	S	tandard	
Outcome	Mean	Deviation	Mean	Deviation	Difference	Error	P-Value
First program summer							
Enrolled	17.85	38.11	9.78	30.35	8.06***	1.93	0.0000
Credits attempted	0.90	2.37	0.43	1.94	0.47***	0.12	0.0001
Credits earned	0.68	2.03	0.32	1.55	0.37***	0.10	0.0004
Second program summer							
Enrolled	13.89	34.53	11.48	32.07	2.41	1.92	0.2104
Credits attempted	0.63	2.15	0.54	2.10	0.09	0.13	0.4598
Credits earned	0.50	1.88	0.39	1.75	0.11	0.11	0.3111
Total (total = 1,268)	829		439				

SOURCES: MDRC calculations using data from the National Student Clearinghouse (NSC) and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score.

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

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

NSC data are used for overall enrollment. Credits attempted and credits earned are based on data from a student's college of random assignment.

## APPENDIX TABLE B.3 Enrollment, Credit, and Credential Impacts

	Progra	m Group	Contro	ol Group	Estimated Effects			
		Standard		Standard		Standard		
Outcome	Mean	Deviation	Mean	Deviation	Difference	Error	P-Value	
Enrolled								
Semester 1	65.46	47.59	61.02	48.81	4.44	2.82	0.1154	
Semester 2	63.00	48.34	55.36	49.74	7.63***	2.87	0.0080	
Semester 3	44.99	49.76	36.70	48.35	8.29***	2.86	0.0038	
Semester 4	40.36	49.03	37.60	48.64	2.75	2.86	0.3351	
Semester 5	32.72	46.86	28.65	45.48	4.07	2.70	0.1322	
Semester 6	29.72	45.58	25.59	44.06	4.13	2.61	0.1142	
Enrolled full time								
Semester 1	37.13	48.33	31.05	46.36	6.09**	2.74	0.0265	
Semester 2	35.19	47.73	23.93	42.91	11.26***	2.62	0.0000	
Semester 3	18.83	39.06	14.24	35.13	4.59**	2.12	0.0303	
Semester 4	17.81	38.21	13.04	33.90	4.76**	2.08	0.0221	
Semester 5	8.42	27.71	6.21	24.32	2.21	1.52	0.1476	
Semester 6	6.51	24.69	5.69	23.17	0.81	1.37	0.5514	
Enrolled at a 4-year college								
Semester 1	3.92	19.25	2.83	17.00	1.09	1.09	0.3173	
Semester 2	2.96	16.71	3.97	19.95	-1.01	1.12	0.3696	
Semester 3	4.27	20.04	3.28	18.24	1.00	1.13	0.3786	
Semester 4	3.69	18.58	3.87	19.82	-0.19	1.14	0.8703	
Semester 5	5.31	22.27	5.59	23.31	-0.28	1.37	0.8394	
Semester 6	6.13	23.73	5.07	22.58	1.06	1.39	0.4466	
						(c	ontinued)	

#### **APPENDIX TABLE B.3** (continued)

	Progra	m Group	Contro	ol Group	Estimated Effects		
Outcome	Mean	Standard Deviation	Mean	Standard Deviation	Difference	Standard Error	P-Value
Credits earned							
Semester 1	4.54	5.20	3.95	4.93	0.58**	0.29	0.0416
Semester 2	4.53	6.02	3.26	5.09	1.27***	0.31	0.0001
Semester 3	2.79	4.71	2.12	4.33	0.67***	0.25	0.0082
Semester 4	2.81	5.41	2.29	4.97	0.51*	0.29	0.0811
Semester 5	1.73	3.72	1.24	3.28	0.49**	0.20	0.0135
Semester 6	1.37	3.38	1.06	3.02	0.32*	0.18	0.0786
Cumulative credits earned							
Semester 1	4.54	5.20	3.95	4.93	0.58**	0.29	0.0416
Semester 2	8.94	9.90	7.13	8.98	1.81***	0.53	0.0007
Semester 3	11.58	13.28	9.16	12.08	2.42***	0.70	0.0006
Semester 4	14.26	17.36	11.32	15.95	2.94***	0.92	0.0015
Semester 5	15.90	19.82	12.53	18.10	3.37***	1.05	0.0013
Semester 6	17.14	21.80	13.47	19.96	3.67***	1.15	0.0014
Earned a credential							
Semester 1	0.10	3.24	0.01	0.00	0.09	0.10	0.3816
Semester 2	0.35	5.88	0.70	8.38	-0.36	0.45	0.4265
Semester 3	0.84	9.02	0.67	8.38	0.17	0.52	0.7448
Semester 4	2.60	15.79	2.44	15.74	0.17	0.94	0.8601
Semester 5	4.04	19.64	3.59	18.77	0.46	1.14	0.6890
Semester 6	7.20	25.74	6.76	25.38	0.44	1.50	0.7710
Sample size (total = 1,268)	829		439				

SOURCES: MDRC calculations using data from National Students Clearinghouse (NSC) and from the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, interaction between race and gender, and ACT and SAT score. Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Weights are calculated to make the effective (weighted) random assignment ratio the same in all random assignment blocks. The effective random assignment ratio is equal to the full sample's random assignment ratio.

NSC data are used for overall enrollment. Credits attempted and credits earned are based on data from a student's college of random assignment.

# Motor City Momentum | 5 7

# APPENDIX TABLE B.4 Cumulative Credits Earned after Three Years, by Subgroup

		Credits Ea	rned (Average)						
Student Characteristic	Sample Size	Program Group	Control Group	Difference		Standard Error	P-Value for Difference	P-Value for Differential Estimated Effects	
Study college								0.042	†1
College 1	573	16.90	13.04	3.86	**	1.62	0.018		
College 2	149	12.85	10.75	2.11		3.08	0.495		
College 3	185	18.39	8.57	9.81	***	2.88	0.001		
College 4	105	12.85	7.59	5.26	*	2.84	0.067		
College 5	256	20.22	23.71	-3.50		3.27	0.286		
Sample size	1,268								
Living with a parent who has earned a bachelor's degree								0.640	
No	987	15.65	11.79	3.86	***	1.23	0.002		
Yes	247	24.71	19.27	5.44	*	3.16	0.086		
Sample size	1,234								
Timeliness of scholarship application completion								0.935	
Before the deadline	829	17.51	14.04	3.46	**	1.45	0.017		
After the deadline	438	16.32	12.66	3.66	*	1.93	0.059		
Sample size	1,267								
Study cohort								0.832	
Fall 2016	589	18.35	14.78	3.57	**	1.72	0.038		
Fall 2017	644	16.02	12.95	3.08	*	1.58	0.052		
Sample size	1,233								

(continued)

#### **APPENDIX TABLE B.4** (continued)

		(	Credits Earned (Av	verage)				
Student Characteristic	Sample Size	Program Group	Control Group	Difference		Standard Error	P-Value for Difference	P-Value for Differential Estimated Effects
Gender								0.4000
Female	748	17.73	13.16	4.57	***	1.54	0.0030	
Male	520	16.43	13.84	2.58		1.79	0.1490	
Sample size	1,268							

SOURCE: MDRC calculations using data from the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, cohort, ACT or SAT score, and the interaction of gender and race/ethnicity.

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

A two-tailed t-test was applied to differences of effect between or among subgroups. Statistical significance levels are indicated as: ††† = 1

# Motor City Momentum | 5

# APPENDIX TABLE B.5 Credentials Earned After Three Years, by Subgroup

		Crede	entials Ear	ned (%)		P-Value for Difference	
Student Characteristic	Sample Size	Program Group	Control Group	Difference	Standard Error		P-Value for Differential Estimated Effects
Study college							0.073†
College 1	573	7.72	6.87	0.85	2.22	0.702	
College 2	149	4.84	0.57	4.27*	2.42	0.079	
College 3	185	4.86	0.00	4.86**	2.06	0.019	
College 4	105	2.64	8.67	-6.04	4.98	0.228	
College 5	256	10.42	16.57	-6.15	4.77	0.199	
Sample size	1,268						
Living with a parent who has earned a bachelor's degree							0.247
No	987	6.86	5.22	1.64	1.60	0.305	
Yes	247	9.14	12.99	-3.85	4.46	0.389	
Sample size	1,234						
Timeliness of scholarship application completion							0.410
Before the deadline	829	7.83	6.57	1.27	1.85	0.495	
After the deadline	438	5.91	7.34	-1.43	2.70	0.596	
Sample size	1,267						
Study cohort							0.828
Fall 2016	589	6.47	5.90	0.57	2.07	0.783	
Fall 2017	644	7.83	7.92	-0.09	2.23	0.967	
Sample size	1,233						

(continued)

#### **APPENDIX TABLE B.5** (continued)

		<b>Average Credentials Earned</b>					
Student Characteristic	Sample Size	Program Group	Control Group	Difference	Standard Error	P-Value for Difference	P-Value for Differential Estimated Effects
Gender							0.2390
Female	748	8.12	6.28	1.84	2.01	0.3620	
Male	520	5.87	7.65	-1.78	2.32	0.4440	
Sample size	1,268						

SOURCE: MDRC calculations using data from the NSC and the Detroit Promise Path colleges.

NOTES: Estimates are adjusted by site, cohort, ACT or SAT score, and the interaction of gender and race/ethnicity.

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

A two-tailed t-test was applied to differences of effect between or among subgroups. Statistical significance levels are indicated as: ††† = 1

### **APPENDIX**



# **Supplementary Cost Tables**

### APPENDIX TABLE C.1 Direct Cost of the Program per Program Group Enrollee per Year

Program Component	Cost (\$)	Percentage of Total (%)
Administration and staffing		
Program Administrators	355	17.6
Other Costs	87	4.3
Subtotal	442	21.9
Coaching	1,102	54.5
Monthly Incentives	478	23.6
Total Direct Cost	2,022	100.0

SOURCE: MDRC calculations based on program expenditure data from the Chamber.

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

Program costs are based on total costs during the first four years of the program.

The discount rate used for program costs is 3 percent. All costs are shown in constant 2020 dollars.

## REFERENCES

- Bailey, Thomas R., Joanne Bashford, Angela Boatman, Josh Squires, Michael Weiss, William Doyle, Jeffrey Valentine, Robgin LaSota, Joshua R. Polanin, Elizabeth Spinney, Wesley Wilson, Martha Yeide, and Sarah H. Young. 2016. Strategies for Postsecondary Students in Developmental Education—A Practice Guide for College and University Administrators, Advisors, and Faculty. Washington, DC: What Works Clearinghouse, Institute of Education Sciences, U.S. Department of Education.
- Bailey, Thomas R., Shanna Smith Jaggars, and Davis Jenkins. 2015. *Redesigning America's Community Colleges: A Clearer Path to Student Success.* Cambridge, MA: Harvard University Press.
- Barr, Andrew, and Benjamin Castleman. 2017. "The Bottom Line on College Counseling." Working paper. Boston: Bottom Line.
- Baum, Sandy. 2016. Student Debt: Rhetoric and Realities of Higher Education Financing. New York: Palgrave Macmillan.
- Beachboard, Martine Robinson, John C. Beachboard, Wenling Li, and Stephen R. Adkison. 2011. "Cohorts and Relatedness: Self-Determination Theory as an Explanation of How Learning Communities Affect Educational Outcomes." *Research in Higher Education* 52, 8: 853-874.
- Bettinger, Eric P., and Rachel B. Baker. 2014. "The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising." *Educational Evaluation and Policy Analysis* 36, 1: 3-19.
- Braxton, John M. 2000. *Reworking the Student Departure Puzzle*. Nashville, TN: Vanderbilt University Press.
- Carrell, Scott, and Bruce Sacerdote. 2017. "Why Do College-Going Interventions Work?" American Economic Journal: Applied Economics 9, 3: 124-151.
- Cooper, Ashley D. 2014. "Exploring the Use of Non-cognitive Factors in Predicting College Academic Outcomes." Master's thesis, University of Tennessee, Chattanooga. Website: https://scholar.utc.edu/theses/117.
- Darden, Joe, and Okha Sameh. 2000. "Black Residential Segregation in the City and Suburbs of Detroit: Does Socioeconomic Status Matter?" *Journal of Urban Affairs* 22: 1-13.
- Deil-Amen, Regina. 2011. "Socio-Academic Integrative Moments: Rethinking Academic and Social Integration Among Two-Year College Students in Career-Related Programs." *Journal of Higher Education* 82, 1: 54-91.
- Detroit Regional Chamber. 2020. State of Education. Website <a href="https://www.detroitchamber.com/new-state-of-education-report-details-education-and-talent-needs-of-the-region/">https://www.detroitchamber.com/new-state-of-education-report-details-education-and-talent-needs-of-the-region/</a>.

- Dougherty, Kevin J., Hana Lahr, and Vanessa S. Morest. 2017. *Reforming the American Community College: Promising Changes and Their Challenges*. CCRC Working Paper 98. New York: Community College Research Center, Teachers College, Columbia University.
- Duckworth, Angela L., Christopher Peterson, Michael D. Matthews, and Dennis R. Kelly. 2007. "Grit: Perseverance and Passion for Long-term Goals." *Journal of Personality and Social Psychology* 92, 6: 1087.
- Evans, William N., Melissa S. Kearney, Brendan Perry, and James X. Sullivan. 2017. "Increasing Community College Completion Rates Among Low-income Students: Evidence from a Randomized Controlled Trial Evaluation of a Case Management Intervention." NBER Working Paper No. 24150. Cambridge, MA: National Bureau of Economic Research.
- Feldman, Robert S., ed. 2017. *The First Year of College: Research, Theory, and Practice on Improving the Student Experience and Increasing Retention.* Cambridge, UK: Cambridge University Press.
- Ganga, Elizabeth, Amy Mazzariello, and Nikki Edgecombe. 2018. *Developmental Education: An Introduction for Policymakers*. New York: Community College Research Center, Teachers College, Columbia University.
- Goodman, Joshua, Michael Hurwitz, and Jonathan Smith. 2015. *College Access, Initial College Choice, and Degree Completion.* 20996. Cambridge, MA: National Bureau of Economic Research.
- Harper, Shaun R., and Isaiah Simmons. 2019. *Black Students at Public Colleges and Universities*. Los Angeles: USC Race and Equity Center, University of Southern California.
- Holzman, Brian, and Vansa Shewakramani Hanson. 2020. Summer Melt and Free Application for Federal Student Aid Verification. Houston, TX: Rice Houston Education Research Consortium.
- Juszkiewicz, Jolanta. 2015. Trends in Community College Enrollment and Completion Data 2015. Washington, DC: American Association of Community Colleges.
- Kuh, George D., Ty M. Cruce, Rick Shoup, Jillian Kinzie, and Robert M. Gonyea. 2008. "Unmasking the Effects of Student Engagement on First-Year College Grades and Persistence." *The Journal of Higher Education* 79, 5: 540-563.
- Ma, Jennifer, Sandy Baum, Pender Matea, and Meredith Welch. 2017. *Trends in College Pricing*. New York: College Board. Website: <a href="https://research.collegeboard.org/trends/college-pricing/resource-library">https://research.collegeboard.org/trends/college-pricing/resource-library</a>.
- Mayer, Alexander, Reshma Patel, and Melvin Gutierrez. 2015. "Four-Year Effects on Degree Receipt and Employment Outcomes from a Performance-Based Scholarship Program in Ohio." MDRC Working Paper. New York: MDRC.
- National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS). 2020. "Winter 2019-20, 200 Percent Graduation Rates component (provisional data)." Washington, DC: U.S. Department of Education. Website: <a href="https://nces.ed.gov/">https://nces.ed.gov/</a>.

- Owens, D., K. Lacey, G. Rawls, and J. Holbert-Quince. 2010. "First-Generation African-American Male College Students." The Career Development Quarterly 58, 4: 291-300.
- Orfield, Gary, and Chungmei Lee. Why Segregation Matters: Poverty and Education Inequality. Cambridge, MA: The Civils Rights Project at Harvard University.
- Page, Lindsay C., Benjamin L. Castleman, and Katharine Meyer. 2020. "Customized Nudging to Improve FAFSA Completion and Income Verification." Educational Evaluation and Policy Analysis 42, 1: 3-21.
- Page, Lindsay C., Benjamin L. Castleman, Stacy S. Kehoe, and Gumilang A. Sahadewo. 2017. "More than Dollars for Scholars: The Impact of the Dell Scholars Program on College Access, Persistence and Degree Attainment." Available at SSRN: https://ssrn. com/abstract=2726320.
- Pike, Gary R., George D. Kuh, and Ryan Massa-McKinley. 2008. "First-Year Students" Employment, Engagement, and Academic Achievement: Untangling the Relationship Between Work and Grades." NASPA Journal 45, 4: 1-24.
- Pretlow, Joshua, Deonte Jackson, and Michael Bryan. 2020. A 2017 Follow-up: Six-Year Persistence and Attainment at First Institution for 2011-12 First-time Postsecondary Students. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Raj, Chetty, Nathaniel Hendren, Patrick Cline, and Emmanuel Saez. 2014. "Where is the Land of Opportunity: The Geography of Intergenerational Mobility in the United States," Quarterly Journal of Economics 129 4: 1553-1623.
- Rolston, Howard, Elizabeth Copson, and Karen Gardiner. 2017. Valley Initiative for Development and Advancement: Implementation and Early Impact Report, OPRE Report #2017-83. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Schulz, Amy, David Williams, Barbara Israel, Adam Becker, Edith Parker, Sherman James, and James Jackson 2000. "Unfair Treatment, Neighborhood Effects, and Mental Health in the Detroit Metropolitan Area." Journal of Health and Social Behavior 41, 314-32.
- Scrivener, Susan, and Erin Coghlan. 2011. Opening Doors to Student Success: A Synthesis of Findings from an Evaluation at Six Community Colleges. New York: MDRC.
- Scrivener, Susan, Michael J. Weiss, Alyssa Ratledge, Timothy Rudd, Colleen Sommo, and Hannah Fresques. 2015. Doubling Graduation Rates: Three-Year Effects of CUNY's Accelerated Study in Associate Programs for Developmental Education Students. New York: MDRC.
- Sommo, Colleen, Dan Cullinan, and Michelle Manno. 2018. Doubling Graduation Rates in a New State: Two-Year Findings from the ASAP Ohio Demonstration. New York: MDRC.
- Strayhorn, Terrell L. 2012. College Students' Sense of Belonging: A Key to Educational Success for All Students. New York: Routledge.

- Sugrue, Thomas J. 2014. *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*—Updated Edition. Princeton, NJ: Princeton University Press.
- United Ways of Michigan. 2017. Asset Limited, Income Constrained, Employed (ALICE): Michigan 2017 Update. Website: <a href="https://www.michiganfoundations.org/resources/alice-report-michigan">https://www.michiganfoundations.org/resources/alice-report-michigan</a>.
- U.S. Bureau of Labor Statistics. 2020. "Occupational Employment and Wages, May 2019, 11-9039 Education Administrators, All Other." Washington, DC: U.S. Department of Labor. Website: https://www.bls.gov/oes/current/oes119039.htm.
- Velez, Erin Dunlop, Alexander Bentz, and Caren A. Arbeit. 2018. *Working Before, During, and After Beginning at a Public 2-Year Institution*. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Weiss, Michael J., Howard Bloom, and Thomas Brock. 2014. "A Conceptual Framework for Studying the Sources of Variation in Program Effects." *Journal of Policy Analysis and Management* 33, 3.
- Welbeck, Rashida, John Diamond, Alexander Mayer, and Lashawn Richburg-Hayes. 2014. "Piecing Together the College Affordability Puzzle: Student Characteristics and Patterns of (Un)Affordability." MDRC Working Paper. New York: MDRC.
- Welbeck, Rashida, Michelle Ware, Oscar Cerna, and Ireri Valenzuela. 2014. *Paying It Forward: A Technical Assistance Guide for Developing and Implementing Performance-Based Scholarships*. New York: MDRC.
- Westfall, P.H., S.S. Young, and S. Paul Wright. 1993. "On Adjusting P-Values for Multiplicity." *Biometrics* 49, 3: 941-945.
- Zajacova, Anna, Scott M. Lynch, and Thomas J. Espenshade. 2005. "Self-efficacy, Stress, and Academic Success in College." *Research in Higher Education* 46, 6: 677-706.

# **ABOUT MDRC**

MDRC, a nonprofit, nonpartisan social and education policy research organization, is committed to finding solutions to some of the most difficult problems facing the nation. We aim to reduce poverty and bolster economic mobility; improve early child development, public education, and pathways from high school to college completion and careers; and reduce inequities in the criminal justice system. Our partners include public agencies and school systems, nonprofit and community-based organizations, private philanthropies, and others who are creating opportunity for individuals, families, and communities.

Founded in 1974, MDRC builds and applies evidence about changes in policy and practice that can improve the well-being of people who are economically disadvantaged. In service of this goal, we work alongside our programmatic partners and the people they serve to identify and design more effective and equitable approaches. We work with them to strengthen the impact of those approaches. And we work with them to evaluate policies or practices using the highest research standards. Our staff members have an unusual combination of research and organizational experience, with expertise in the latest qualitative and quantitative research methods, data science, behavioral science, culturally responsive practices, and collaborative design and program improvement processes. To disseminate what we learn, we actively engage with policymakers, practitioners, public and private funders, and others to apply the best evidence available to the decisions they are making.

MDRC works in almost every state and all the nation's largest cities, with offices in New York City; Oakland, California; Washington, DC; and Los Angeles.