REWARDING PROGRESS, REDUCING DEBT

Early Results from Ohio's Performance-Based Scholarship Demonstration for Low-Income Parents

Paulette Cha
Reshma Patel

OCTOBER 2010

mdrc
BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

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Funders of the Performance-Based Scholarship Demonstration

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The Kresge Foundation
NYC Center for Economic Opportunity
The Ohio Department of Job and Family Services through the Ohio Board of Regents
Robin Hood Foundation

Dissemination of MDRC publications is supported by the following funders 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 Ambrose Monell Foundation, The Annie E. Casey Foundation, Carnegie Corporation of New York, The Kresge Foundation, Sandler Foundation, and The Starr 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.

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Overview

Performance-based scholarships are a new and innovative type of financial aid for postsecondary education. The scholarships are performance-based in that the payments are contingent upon meeting academic benchmarks after students enroll in the scholarship program, and do not place weight on past grades. This design is intended to give students an incentive to change their behavior with respect to time management and academics, with the goal of improving their educational outcomes. It also serves students who may not have had much past academic success, and gives them a clean slate. Researchers, institutions of higher learning, and policy experts have a growing interest in performance-based scholarships as a tool to promote academic success, particularly for low-income populations.

Through the national Performance-Based Scholarship (PBS) Demonstration, MDRC is testing variations of this intervention to build evidence on its potential to help low-income students. Ohio is one of six states in the demonstration, and is unique in that its program had existed independent of MDRC's research. Ohio's history of cultivating political will to finance a performance-based scholarship with public funds makes this variation especially policy-relevant. The program was offered to low-income parents at three community colleges. This population may struggle with many competing priorities, such as child care or work, in addition to college.

The PBS Demonstration uses random assignment, which is the gold standard in program evaluation and the research methodology preferred by the Office of Management and Budget for demonstrating program effectiveness. MDRC assigned about 2,300 students to either a control group that received the colleges' standard financial aid package, or to a program group that received the same aid in addition to becoming eligible for receipt of the scholarship. The program lasted for one academic year and offered students awards up to $1,800 per academic year for earning a "C" or better in 12 or more credits per term, or up to $900 for meeting that benchmark in 6 to 11 credits per term. Students were paid at the end of each term, contingent on meeting the performance benchmark.

This report covers the full program year for the first cohort of the study, which comprises students who enrolled in the study in the fall 2008 term. The study sample for the fall 2008 cohort includes about 1,300 students, or roughly 60 percent of the total sample. Early analyses show that:

- **The program increased the number of credits attempted.** Program group students attempted more credits on average than the control group students in the second program term.
- **The program increased full-time enrollment.** Program group students were 13 percent more likely to enroll full time than control group students in the second program term.
- **The program increased the number of credits earned.** Program group students earned more credits in both the first and second program terms, and earned an average of two full credits more than control group students over the program year.
- **The program reduced educational debt.** Loans made up a smaller proportion of total financial aid for program group students than for control group students. On average, program group students were awarded $237 fewer loan dollars.
- **The program has not had any impact on persistence to date.** The control group students registered in the second program term at a high rate that was difficult to improve upon.

Contents

Overview	iii
List of Tables, Figures, and Boxes	vii
Preface	ix
Acknowledgments	xi
Introduction	3
The Performance-Based Scholarship in Ohio	11
Characteristics of the Performance-Based Scholarship Sample	20
Effect of the Performance-Based Scholarship Program on the Financial Aid Package	23
Scholarship Receipt	28
An Early Look at Program Impacts	30
Conclusions	34
Next Steps	37
Appendix A	39
References	45

List of Tables, Figures, and Boxes

Table

1	Selected Characteristics of Participating Colleges	8
2	Selected Characteristics of Sample at Baseline: Fall 2008 Cohort	21
3	Impacts on Financial Aid Awarded During the First Program Term: Fall 2008 Cohort	26
4	Scholarship Receipt Among the Program Group Members: Fall 2008 Cohort	29
5	Educational Outcomes for the Program Year: Fall 2008 Cohort	31
6	Cumulative Academic Outcomes for the Program Year: Fall 2008 Cohort	35
A.1	Selected Characteristics of the Sample at Baseline, by Research Group: Fall 2008 Cohort	41

Figure

1	Random Assignment Process Used for the Demonstration	16

Box

1	Financial Aid for Students in Ohio and Its Relevance for the Performance-Based Scholarship Program	13
2	Semester-Based Schools Versus Quarter-Based Schools	19

Preface

Can supplemental financial aid that is tied to academic performance help students complete their college studies? Although federal and state financial aid can help with college expenses, students still often have unmet need, particularly if they are from the poorest families or are independent of their parents ð or are parents themselves. Such students often get jobs to supplement their income, but too many hours on the job can hurt their academic performance and they may drop out of school. Loans can also help, but many low-income students are reluctant to take on debt ð especially if they have doubts about their ability to earn a degree.

As part of its multisite Opening Doors demonstration, which sought to confront some of these problems head-on, MDRC evaluated an innovative strategy: granting performance-based scholarships. The idea is to increase financial support for students and create an incentive to complete their courses, which in turn should accelerate their progress toward attaining a degree. Promising results for full-time registration, persistence, and credit accumulation from the Opening Doors program in Louisiana spurred interest among other states in offering similar scholarships. Recognizing, however, that Louisiana is just one study and that the results may not be easily generalized to other populations, MDRC launched the Performance-Based Scholarship Demonstration in 2008 with anchor support from the Bill & Melinda Gates Foundation. The demonstration is testing variations of a PBS program in Ohio, California, Arizona, New Mexico, Florida, and New York, evaluating whether such scholarships increase academic achievement.

Students at three community colleges in Ohio were assigned to a control group that received the collegesô standard financial aid package, or to a program group that received the same aid and were eligible to receive the scholarship. The program offered awards up to $1,800 per academic year for earning a ñCò or better in 12 or more credits per term, or up to $900 for meeting that benchmark in 6 to 11 credits per term. Students were paid at the end of each term if they met the performance benchmark.

This report describes the early findings from Ohio, where the study sample ð mostly low-income, single mothers ð mirrored that of Louisiana. The program had modest positive impacts on the number of credits attempted, number of credits earned, and reduction in loan debt. Unlike in Louisiana, there was no impact on persistence, though this finding is not surprising given the control groupôs high persistence rate, which was difficult to improve upon.

Future follow-up reports on the Ohio project and the other demonstration sites will continue to build evidence about this promising type of scholarship, which offers a potentially meaningful way to increase financial aid to the students with the greatest need and help them succeed in college.

Gordon L. Berlin
President

Acknowledgments

The Performance-Based Scholarship Demonstration is made possible by anchor support from the Bill and Melinda Gates Foundation. Additional funders in the Ohio site of the demonstration are The Joyce Foundation and the Ohio Department of Job and Family Services. We are grateful for the opportunity to work in collaboration with our funders to improve outcomes for disadvantaged students in the state of Ohio.

It is impossible to name everyone who supported this project at the participating colleges, but we would like to single out a few key individuals for recognition. The following people managed several rounds of recruiting and enrolling students, updated financial aid packages, tracked progress, awarded the performance-based scholarships, and shared data with MDRC. They performed those duties with energy, enthusiasm, and a willingness to make short-term sacrifices for our shared long-range vision: Stephanie Sutton, Saundra Daniels, and Dave Strittmather at Lorain County Community College; William Ivoska, Susanne Schwarck, Karen Shultz, Amy Giordano, Nicholas Savich, and Greg Brown at Owens Community College; Carlyn Bozeman, Sandra Meadows, Nancy Jones, and Cathie Smith at Sinclair Community College.

Our partners at the Ohio Board of Regents were the administrators of the state scholarship funds, but beyond this role, they were also wonderful resources and problem solvers for MDRC and the participating colleges. We thank Rich Petrick, Chad Foust, Darrell Glenn, and Bill Wagner for their dedication to this project.

We are grateful to MDRC staff who served in important roles or contributed to this project in meaningful ways. On the project team, we would like to recognize Lashawn Richburg-Hayes and Rob Ivry for their leadership and guidance; Frieda Molina, Melissa Wavelet, and Mike Bangser for senior operations support; Colleen Sommo for data management and technical advising; Amanda Grossman for resource management; Monica Cuevas for research assistance, including the fact-checking of this report; and Mary Clair Turner for contributing to data processing and analysis. Random assignment and baseline data collection would not have been possible without the hard work of Joel Gordon, Galina Farberova, and Shirley James and her staff in the data room. In addition to our project directors, Dan Bloom, John Hutchins, and Cynthia Miller reviewed drafts of this report. Alice Tufel edited the manuscript, and David Sobel and Stephanie Cowell prepared it for publication.

Finally, we would like to thank the hundreds of parents pursuing postsecondary education who participated in the study in Ohio. We hope that the findings from this study and the other sites in the Performance-Based Scholarship Demonstration will be used to improve college programs and services for them and others in the future.

The Authors

Rewarding Progress, Reducing Debt

Early Results from Ohio's Performance-Based Scholarship Demonstration for Low-Income Parents

Introduction

This report presents early results from a rigorous evaluation of a performance-based scholarship program that was implemented at three community colleges in Ohio during the 2008-2009 academic year. Performance-based scholarships are a new and innovative type of financial aid for postsecondary education. The scholarships are need-based and are contingent upon meeting academic benchmarks after students enroll in the program, and do not place weight on past grades. This design is intended to give students an incentive to change their behavior with respect to time management and academics, with the goal of improving their educational outcomes. It also serves students who may not have had much past academic success, and gives them a clean slate. Researchers, institutions of higher education, and policy experts have a growing interest in performance-based scholarships as a tool to promote academic success, particularly for low-income populations.

The program in Ohio that is the subject of this report is part of MDRC's national Performance-Based Scholarship (PBS) Demonstration, which was launched in 2008 to evaluate whether performance-based scholarships are an effective way to improve persistence among low-income college students.[1] To the extent possible, they are paid in addition to existing financial aid, and typically result in more money for students.[2] The disbursements are based on meeting academic benchmarks in the current academic term, regardless of what happened in previous terms.

Students participating in the Ohio study are low-income parents who are eligible for Temporary Assistance for Needy Families (TANF).[3] The evaluation uses an experimental design — similar to that used in medical trials to test the effects of a drug, for example — to measure the effects of the program on academic success and persistence. Students who consented to participate in the study were randomly assigned to one of two groups:

- A control group that received the colleges' standard financial aid package
- A program group that received the standard financial aid package and was eligible for the performance-based scholarship

[1]Richburg-Hayes et al. (October 2009a).

[2]Potential effects on other aid are explained in detail later in this report.

[3]The PBS Demonstration in Ohio was not targeted to students requiring developmental education, nor was it designed to particularly affect this group; however, they will be analyzed as a subgroup in a future report.

The PBS program in Ohio lasted for one academic year and offered students up to $1,800 contingent on earning a grade of "C" or better for 12 or more credits, or up to $900 for meeting that benchmark for 6 to 11 credits.[4] Students who earned fewer than 6 credits did not receive any award, regardless of the grades they earned.

The awards are generally paid directly to students rather than credited to their accounts with their college. Students in Ohio received their full performance-based scholarship award even if they had outstanding debt to the college in the form of library fines, parking tickets, or the like. The direct payment permits students to use the funds for their most pressing needs, whether those needs are books, car repairs, child care, or other financial challenges that may disrupt their studies.

The main findings of this study are:

- **The program increased the number of credits attempted.** Program group students attempted more credits on average than their control group counterparts in the second program term.
- **The program increased full-time enrollment.** Program group students were 13 percent more likely to enroll full time than control group students in the second program term.
- **The program increased the number of credits earned.** Program group students earned more credits in both the first and second program terms, and earned an average of two full credits more than control group students over the program year.
- **The program reduced educational debt.** As a result of the program, loans made up a smaller proportion of total financial aid for program group students than for control group students. On average, program group students were awarded $237 fewer loan dollars.
- **The program has had no impact on term-to-term persistence to date.** This finding was not unexpected, given that the control group students registered in the second program term at a high rate that was difficult to improve upon.

[4]These are unadjusted credits. The use of adjusted and unadjusted credits is described later in this report, in Box 2.

In addition to describing the program at the Ohio colleges, implementation of the program, and early impact findings, this report provides background information on the national PBS Demonstration, its purpose, and its research design. First, however, it lays out the rationale for performance-based scholarships and the Ohio context below.

Theory of Change

The theory of change underlying the performance-based scholarship is that conditioning additional financial aid on certain benchmarks can influence several mediating variables. Some sample members may view the scholarship as an inducement to adopt new behaviors. For example, some students might respond by seeking tutoring or working at a paid job for fewer hours in order to have more time to study. They may also experience a new sense of efficacy and competence if they are rewarded for their academic performance in this way. In some cases, the scholarship may encourage students to sustain or intensify positive efforts they already make, such as completing assignments daily, attending class regularly, or finding reliable child care so that their class attendance will not be affected by child care needs.

Improvement in key academic outcomes could occur through these mediating variables. They may influence early educational outcomes while the program is operating, such as term-to-term persistence, academic performance, and the number of credits completed. These early outcomes in Ohio are addressed in this report. In turn, the early educational outcomes may lead to changes in later educational outcomes, including graduation or transfer to another postsecondary institution. If the effects on educational outcomes are positive and strong, the performance-based scholarship could in turn lead to improved labor market outcomes in the short term. Future reports will cover these later outcomes of the Ohio intervention.

The Ohio Context

The PBS program in Ohio had a precursor program that had been created in response to positive outcomes from an MDRC study of performance-based scholarships in Louisiana. In the Louisiana study, which was part of the multisite Opening Doors demonstration,[5] two community colleges implemented a performance-based scholarship program funded by the state using TANF surplus funds. The program was designed for low-income parents who were eligible for TANF, and predominantly served single mothers. The program operated in Louisiana from 2004 to 2005 and provided students with scholarships of up to $1,000 for each of two semesters

[5]The Opening Doors demonstration tested several interventions to improve student success at community colleges. See Scrivener (forthcoming) for a synthesis of the findings from the various studies.

(up to $2,000 per student in total), paid in increments based on each student's success in meeting key benchmarks:

- $250 upon enrollment (at least half-time, defined as six or more credit hours)
- $250 after midterms, contingent upon staying enrolled at least half-time and earning a "C" average or better
- $500 upon completion of courses, with a "C" average or better across all courses (overall, not per class)

Performance-based scholarships were distributed in addition to other financial aid packages for which students were eligible. The program also provided dedicated counselors who monitored students' performance, verified that the benchmarks were met, and handed out scholarship checks to their students. The scholarships were designed to help offset some of the financial burdens of attending college, including living expenses, while also rewarding academic achievement.

The early findings showed that this approach resulted in substantial improvements in scholarship recipients' grades, credit accumulation, and semester-to-semester persistence.[6] For example, 65 percent of the program group members registered for courses in their second semester, compared with 50 percent of those in a control group (for an increase of 30 percent). Moreover, these positive trends extended to the third and fourth semesters, when students were no longer eligible to receive the scholarships. These results are strong given how difficult it is to increase persistence among community college students.[7]

The Louisiana study is one of a handful of studies that is able to measure the effect of additional financial aid on academic success. Factors that are associated with financial need, such as low-income status, are also associated with a lack of academic success, making it difficult to isolate the effect of additional financial aid on student achievement. However, those nonexperimental analyses that have been conducted suggest a positive relationship between grant aid and persistence.[8]

[6]Brock and Richburg-Hayes (2006); Richburg-Hayes et al. (2009b); Barrow , Richburg-Hayes, Rouse, and Brock (2009).

[7]Unfortunately, the devastation inflicted by Hurricane Katrina has made it impossible to determine any longer-term effects of the program, such as its impact on transfer and graduation rates.

[8]Bettinger (2004); Choy (2002); Dynarski (2003); Leslie and Brinkman (1987). A recent random assignment study of a combined financial aid and academic support services intervention also suggests a positive relationship for a subgroup of students. See Angrist, Lang, and Oreopoulos (2009).

The Ohio legislature was impressed by the outcomes from the performance-based scholarship program in Louisiana. When Ohio found itself with a TANF surplus of its own, the state created a similar program for low-income parents. The TANF Educational Awards Program (TEAP) was a performance-based scholarship program designed and funded by two Ohio agencies, and implemented statewide in the 2006-2007 academic year. TEAP was originally introduced as a one-time, one-year program. Despite a positive response from students, severe state budget constraints forced the Ohio legislature to defund TEAP in the following fiscal year.

Ohio reintroduced TEAP on a limited basis as part of MDRC's Performance-Based Scholarship Demonstration in the 2008-2009 academic year, again using TANF funds. This move was a natural fit with the state's strategic plan, which has as priorities producing more college graduates and keeping more college graduates in Ohio.[9] Low-income parents are an attractive population for investment because they are more likely to stay in Ohio after graduation.

The PBS program in Ohio was a performance-based scholarship program implemented at three community colleges. The Ohio Department of Job and Family Services (ODJFS) funded the scholarship using flexible TANF dollars,[10] and the Ohio Board of Regents (OBR) administered the program through its division of State Grants and Scholarships. The three Ohio program colleges disbursed scholarships to students first and then submitted a reimbursement request to the OBR, which in turn submitted a reimbursement request to the ODJFS. The dollars then flowed from the ODJFS to the OBR to the colleges. Students participating in the study are low-income parents who are eligible for TANF.

The Ohio Program Colleges

The Ohio program was implemented at Lorain County Community College, Owens Community College, and Sinclair Community College. The institutions cover three of Ohio's four geographic corners. In northeast Ohio, Lorain enrolled 10,769 students in 2007 in the small city of Elyria.[11] In the northwestern part of the state, Owens enrolled 18,154 students in the Toledo metro area, including a sizable minority from neighboring Michigan. Located in Dayton in southwest Ohio, Sinclair enrolled 15,030 students. Additional information on the colleges is listed in Table 1. All three community colleges are recognized as leaders in innovation. Lorain

[9]Fingerhut (2008).

[10]The Ohio Department of Job and Family Services operates the TANF program, among other programs, for the state.

[11]All enrollment numbers are from the U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (2007). All three Ohio colleges have seen large enrollment surges since the 2008 downturn in the economy, and the larger numbers are not reflected in these data.

The Performance-Based Scholarship Demonstration

Table 1

Selected Characteristics of Participating Colleges

Lorain County, Owens, and Sinclair Community Colleges

Characteristic	Lorain	Owens	Sinclair
Total students (N)	10,769	18,154	15,030
Enrollment (%)			
Full-time	40.3	34.2	45.7
Part-time	59.7	65.8	54.3
Gender (%)			
Male	35.9	55.5	41.8
Female	64.1	44.5	58.2
Age[a] (%)			
Under 25 years	60.3	49.4	52.7
25-29 years	13.0	17.3	14.5
30 years and over	26.7	33.3	32.8
Race/ethnicity (%)			
Hispanic	6.7	4.2	1.6
White	80.8	79.5	72.5
Black	7.6	11.5	15.0
Asian or Pacific Islander	1.3	1.0	1.6
Other[b]	3.6	3.9	9.3
Total cost of attendance[c] ($)	7,450	11,568	9,481
Tuition and fees	2,400	3,594	1,621
Books and supplies	1,200	1,400	1,038
Living expenses	3,850	6,574	6,822
Financial aid, 2007-2008[d]			
Total financial aid ($)	2,050	3,639	2,497
Federal grant aid (%)	48.2	31.6	40.3
State and local grant aid (%)	20.1	14.0	25.8
Institutional grant aid (%)	12.3	4.0	5.1
Student loan aid (%)	19.4	50.3	28.8
Estimated unmet need ($)	5,400	7,929	6,984

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).

NOTES: Data on undergraduate degree-seeking students are from fall 2007. Missing values are not included in individual variable distributions. Distributions may not add to 100 percent because of rounding.

[a]Data on age are based on the entire undergraduate student population at each school.

[b]Includes nonresident aliens, American Indians, and Alaskan Natives.

[c]Data are based on in-district, first-time, full-time undergraduate students living off campus and not with their family for the 2007-2008 academic year.

[d]Financial aid information is based on undergraduate first-time degree-seeking students.

offers a unique program called University Partnership, in which students can earn a bachelor's or master's degree from a partner four-year institution, such as Cleveland State University or Youngstown State University, while continuing to attend courses on Lorain's campus. Owens has a strong outreach program that is accessible to its lowest-income students, including a community college one-stop center (created to handle multiple administrative functions in one place) in downtown Toledo and an active partnership with the Toledo Public Schools system. Sinclair participates in Achieving the Dream: Community Colleges Count, an initiative that helps community colleges make data-driven institutional changes intended to increase the number of at-risk students who succeed, and has several nationally recognized vocational programs, including nursing and culinary arts programs. Lorain and Owens operate on the semester system, with two semesters per academic year in addition to various summer sessions (which are elective). Sinclair Community College operates on the quarter system, with three quarters per academic year, plus one elective quarter during the summer. Throughout this report, "term" refers to either a semester or a quarter, depending on the college.

The Ohio Program Model

The PBS program in Ohio offered students a scholarship for two consecutive semesters at Lorain and Owens, or three consecutive quarters at Sinclair. All program students in the Ohio study were offered a full-time scholarship of up to $1,800 contingent on earning a grade of "C" or better in 12 or more credits, or a part-time scholarship of up to $900 contingent on meeting that benchmark in 6 to 11 credits, for one academic year. The awards were paid at the end of each academic term and were divided evenly among two consecutive semesters or three consecutive quarters; thus, the full-time payment was $900 per semester or $600 per quarter, and the part-time payment was $450 per semester or $300 per quarter. Students who were participating in the program could earn any combination of part-time award, full-time award, or no award over the program terms. Students received regular reminders about the scholarship throughout the academic term. Notably, the performance benchmarks for the PBS program are defined by performance at the course level. Consequently, a student with less than a cumulative 2.0 grade point average (GPA) could still earn the scholarship, provided grades of "C" or better were earned for the required number of credits — that is, it was possible to earn a "C" for 12 credits and still have a below-"C" average.[12]

In the version of TEAP that had operated in the 2006-2007 academic year, the awards had been paid in two increments per academic term. However, the multiple payment structure

[12]For example, if a student took 15 credits, failed one 3-credit course, and got a "C" in each of her remaining courses, she would still meet the full-time benchmark.

resulted in the reduction of some students' public benefits eligibility.[13] In order to avoid a recurrence of this unintended consequence, MDRC collaborated with the ODJFS to redesign the scholarship so as to minimize interaction with benefits eligibility. The resulting payment structure of one payment per term addressed the issue, and program group students in Ohio have not had their benefits decreased as a result of earning the scholarship.

The Ohio program's payment structure differed from the Louisiana model, in which three payments were made every semester, and the first of those payments was based on enrollment rather than on performance. Consequently, while Louisiana students were able to earn at least a partial scholarship without meeting a performance benchmark, their counterparts in Ohio did not have that opportunity. All students who earned a performance-based scholarship in Ohio had to meet a performance benchmark, and MDRC had expected that this condition would lead to a smaller proportion of the students in the Ohio study earning the scholarship than was the case in Louisiana, and could produce smaller impacts as a result.[14] Students in the study could perceive a promised one-time payment at the end of the academic term as a distant reward, so the Ohio program design incorporated e-mail reminders and postcards to keep students aware of the potential payoff for hard work. These contacts with the students, described in detail later in this report, were designed to be upbeat and informative.

Also unlike the Louisiana model, the Ohio program tests the effects of a basic performance-based scholarship without a counseling component. In Louisiana, the study was not able to disentangle the effects of the scholarship and counseling components since both were offered to program students. The PBS study in Ohio will reflect the impact of the scholarship alone. In the absence of counselors, each college designated staff to track academic performance through internal computer systems and to issue checks to students who successfully completed the performance requirements at the end of the term.

The Broader PBS Demonstration

The Louisiana performance-based scholarship results are impressive, but the study is just one test. The positive findings could have resulted from the location of the study in a state with few need-based resources or from the target group of low-income parents (who may be more mature and capable of utilizing the scholarship), or a combination of those two aspects. The goal of the PBS Demonstration is to build more evidence as to whether performance-based

[13]The regularity of the payments caused the scholarship to be counted as income by some students' caseworkers.

[14]A program "impact" is the difference between the outcome achieved by the program group and that achieved by the control group, providing an effective comparison of what happens when a program is in place and what would have happened in its absence.

scholarships help at-risk students succeed academically and persist at higher rates than they normally would in the absence of such an intervention. The Ohio study will help determine whether a comparable amount of scholarship funds targeted to a similar population in a different location would have similar outcomes as those in Louisiana.[15]

Currently, eight colleges and one intermediary across six states are participating in PBS:[16] Lorain County, Owens, and Sinclair community colleges in Ohio; the Borough of Manhattan and Hostos community colleges in New York; the University of New Mexico; Pima Community College in Arizona; Hillsborough Community College in Florida; and a state-level intermediary in California. While the amount of the scholarship, duration, performance criteria, and target group for the scholarship vary across the sites, all programs offer an incentive scholarship designed to address the financial needs of low-income students who are not fully covered by existing federal and state financial aid programs. Each state's intervention is being evaluated using random assignment. Random assignment is considered the gold standard in program evaluation, and is the research methodology preferred by the U.S. Office of Management and Budget for demonstrating program effectiveness. It ensures that the motivation and personal characteristics of students in the program and control groups are the same at the beginning of each study; hence, any subsequent differences in educational or other outcomes can be attributed with a high level of confidence to the PBS Demonstration. In this way, the demonstration is testing whether performance-based scholarships are an effective way to improve postsecondary academic persistence and success among low-income students in different geographic locations, with different amounts of monies, offered for different durations.

The Performance-Based Scholarship in Ohio

Ohio's Financial Aid Context

The federal Pell Grant is the primary need-based financial aid program for college students in the United States. During the period covered in this report (the 2008-2009 academic year), Ohio offered relatively generous state need-based financial aid, and the Ohio College Opportunity Grant (OCOG) was the main vehicle for that aid. The maximum Pell Grant was $4,731, and the maximum OCOG grant was $2,496. The actual amounts of the need-based awards that a student received were affected by the student's cost of attendance (COA), Ex-

[15]The $2,000 scholarship in Louisiana eliminated about 19 percent of unmet need, after loans were applied, at the larger of the two participating institutions. The scholarship payment in Ohio was calibrated such that the maximum scholarship amount of $1,800 represents about 27 percent of the estimated unmet need for students after loans were applied.

[16]An intermediary is an existing scholarship provider or administrator that is not institutionally based.

pected Family Contribution (EFC), and enrollment status (that is, full time or part time). Box 1 explains these terms and provides more details about Ohio's financial aid for students and its implications for the participants in the PBS Demonstration in that state.

Immediately following the period covered in this report, the generosity of Ohio's need-based financial aid declined precipitously. The OCOG program was restructured and received a greatly reduced allocation as a consequence of severe state budget constraints in 2009. Among the changes to the program was a decision to terminate eligibility for community college students. Starting in the 2009-2010 academic year, students at Ohio community colleges, including the students in the PBS study, are no longer eligible for OCOG. The State of Ohio is considering measures to alleviate the resulting financial burden for this population, but its resources are limited. These changes occurred after the impacts described in this report were measured, but the tracking of the students in the Ohio study will continue in the context of a state with much lower levels of state need-based aid.

Target Population

The PBS program in Ohio was funded through state TANF dollars. As a result, the program required that scholarship recipients be low-income parents of minor children. The criteria for program eligibility were:[17]

- At least 18 years of age
- U.S. citizen
- Resident of Ohio
- Not incarcerated
- EFC of zero (see Box 1)[18]
- Parent (not necessarily custodial) of a minor child[19]

As parents, many students in the PBS study were older than traditional college-age students, and all were treated as independent for the purposes of receiving financial aid. While TANF eligibility was a requirement, students did not need to be recipients of TANF cash assistance per se. The Ohio program used an EFC of zero as a proxy for TANF eligibility. This is interpreted to mean that a student's family is unable to contribute any funds to the cost of

[17]In addition to the listed eligibility criteria, MDRC encouraged the colleges to exclude associate's and bachelor's degree holders, as well as those within six credits of earning either one of those degrees, in order to funnel resources to students who were still in need of a first postsecondary credential. This criterion was not binding. Additionally, Owens chose to exclude concurrently enrolled high school students.

[18]EFC of zero was approved by the State of Ohio as a proxy for TANF eligibility in this program.

[19]Pregnant students or legal guardians are also eligible.

Box 1

Financial Aid for Students in Ohio and Its Relevance for the Performance-Based Scholarship Program

A student in Ohio applies for both federal and state aid by filling out the U.S. Department of Education's Free Application for Federal Student Aid (FAFSA). The information contained in the FAFSA includes self-reported data on income, assets, family size, and other factors that contribute to a student's ability to pay for higher education.

The student's institution also determines a **cost of attendance (COA)** for the student within the guidelines set out by the U.S. Department of Education. This figure is generally the sum of tuition and fees; an allowance for books, supplies, transportation, and personal expenses; and an allowance for room and board. The COA also takes into account individual student circumstances, such as whether the student lives at home or is independent of his or her parents. All three of the colleges in the Ohio PBS program have relatively low COAs compared with those of four-year institutions. Two of the colleges have COAs under $10,000 per student per year, and the third college's figure is slightly higher. These figures, as well as selected demographic characteristics of the three Ohio colleges, are detailed in Table 1 of this report.

The FAFSA and COA data are processed by the U.S. Department of Education to produce the following figures:

Expected Family Contribution (EFC). The EFC is the amount of money a student is expected to pay out of pocket, or procure in additional loans, to contribute to the COA. It is calculated based on students' income, family size, state of residence, and a number of other factors. All other things being equal, a lower EFC is associated with higher levels of need-based aid.

The Ohio program required students to have an EFC of zero, which resulted in a sample with higher-than-average levels of need-based grant aid.

Unmet Need. Unmet need is defined as COA minus the total value of all financial aid, minus EFC. Despite low COAs, typical students at the Ohio program colleges have significant unmet need. On average, students at these colleges received approximately $2,000 to $3,600 of financial aid in the 2007-2008 academic year, leaving an estimated unmet need of approximately $5,400 to $8,000.

attendance. Students with an EFC of zero are eligible for the maximum amount of need-based financial aid, so the average student in the Ohio PBS study received higher levels of financial aid than the average student at their colleges. As a result of having more financial aid and an EFC of zero, these students typically had lower unmet need calculations. However, students

with an EFC of zero often have financial challenges that are not reflected in their unmet need figures. This is particularly the case for independent students and parents.[20] The students in the study were often juggling multiple responsibilities, including work and child care responsibilities, in addition to attending college.

Fall term of 2008 marked the beginning of the PBS program in Ohio. The total enrollment goal for the study was 2,400 students across the three colleges, and students were enrolled in multiple cohorts over the course of one academic year.[21] The analyses in this report cover the fall 2008 cohort only, which accounts for about 60 percent of the total sample.[22] Program implementation is described in the following section.

Implementation of the Performance-Based Scholarship Program in Ohio

The process for implementing the PBS program at Lorain, Owens, and Sinclair community colleges involved multiple phases. Those phases included recruitment and study intake, tracking financial aid changes, contacting students throughout the academic term with scholarship reminders, monitoring student academic progress, and disbursing scholarship money. For all those activities, the three colleges designated staff to manage and implement the program. The Director and Associate Director of Financial Aid oversaw all aspects of program implementation at Lorain and Sinclair, respectively; at Owens, the Vice President of Student Services shared responsibility for program implementation with the Associate Director of Financial Aid. In addition to the senior staff who managed the programs, all three colleges had a coordinator who was responsible for day-to-day operations. Finally, the role of data liaison was of particular importance in the Ohio PBS program because timely acquisition of study students' financial aid award information was crucial to tracking changes in financial aid across the program and control groups. Owing to a confluence of factors — including the state financial aid situation, the low cost of attending a community college, and the characteristics of the target group — the Ohio program had a stronger likelihood of changing the composition of students' financial aid packages than did other sites in the PBS Demonstration.

Each Ohio college tailored its PBS program implementation to its own institutional culture. While key research-related aspects of the PBS program were standardized, allowing

[20]Independent students are treated less advantageously by financial aid formulas than are dependent students. Students who are parents are automatically classified as independent.

[21]The study cohorts were fall 2008 (the subject of this report), winter 2009 (Sinclair only), and spring 2009.

[22]In this study, students are randomly assigned just prior to the start of a term and are then considered to be part of that term's cohort. In other words, a student who was randomly assigned near the start of the fall 2008 term is a member of the fall 2008 cohort.

college-specific customization was important for evaluating the program as it would run outside of a research demonstration. The variation in implementation across colleges is expanded upon in the following sections.

Recruitment and Intake

Lorain and Owens had participated in a previous MDRC study,[23] and thus, had first-hand familiarity with the challenges of recruiting students for a random assignment study. All three Ohio colleges committed to a strong campaign to reach the PBS target population of low-income parents. Eligible students with an EFC of zero and minor children were identified through internal financial aid databases at each college and were invited via e-mail or letter to an information session on campus.

Both Lorain and Sinclair used group sessions to present information about the performance-based scholarship to eligible students, whereas Owens opted to hold one-on-one sessions with students. Whether the session was group or individual, the colleges covered the same topics: the study and random assignment, the opportunity to earn a performance-based scholarship, and possible consequence to the students' existing financial aid. The three colleges explained potential changes to students' existing financial aid during the intake session, and Owens presented each student's actual financial aid implications in its one-on-one sessions. Although there was a risk that program group students would not earn the award, the Ohio colleges recognized that a performance-based scholarship was preferable to loan debt for their students.[24] The scholarships were intended to decrease some loan debt in the cases where the full scholarship amount could not be awarded in addition to existing financial aid. As a consequence, depending on their individual financial aid packages, some students did not experience the full "dosage" of the program.

After learning about the limited risks of participating in the study, interested students gave their written informed consent to participate. The students then supplied MDRC with their contact information and filled out a Baseline Information Form (BIF) giving their demographic characteristics at the time of recruitment into the study. The last step of the intake process was random assignment into program and control groups. Staff at both Lorain and Sinclair believed it was important to let time pass between the informational session and notification of group assignments, and that the group environment was inappropriate for communicating random assignments. Thus, MDRC randomly assigned the students from

[23]See, for example, Scrivener and Weiss (2009).

[24]A minority of students had insufficient unmet need to accommodate the full performance-based scholarship. Federal regulations prohibit the awarding of financial aid in excess of unmet need.

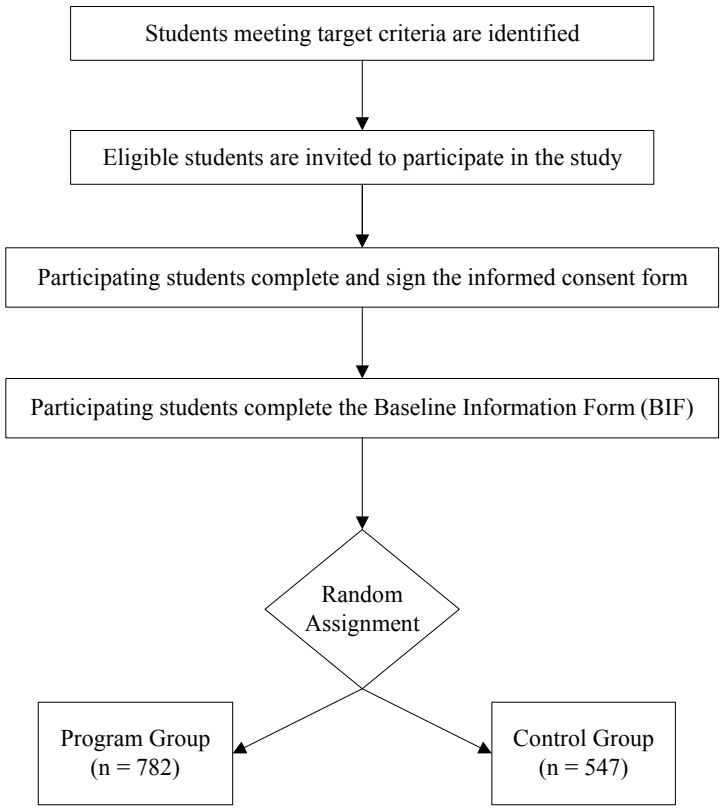
Lorain and Sinclair in weekly batches, and the schools notified students of their assignment approximately one week after their intake session via letters containing standardized language. Owens, since it was performing intake in one-on-one sessions, believed that its situation was appropriate for immediately communicating random assignments to both study groups. As a result, Owens used MDRC's online random assignment module and communicated program or control group status to students. The Ohio program's process of recruitment and random assignment is represented in Figure 1.

The Performance-Based Scholarship Demonstration

Figure 1

Random Assignment Process Used for the Demonstration

Lorain County, Owens, and Sinclair Community Colleges



The program intervention involved the addition of the performance-based scholarship to students' financial aid, so students did not need to return to campus to complete the process of accessing the program. Rather, once students were informed of their assignments, the staff at Lorain, Owens, and Sinclair added the performance-based scholarship to the program students' financial aid packages. As a result of the hard work and dedication of the staff at the Ohio program colleges, the recruitment effort was very successful at all three colleges.

Reminders to Students

The Ohio program colleges and MDRC recognized that students could conceivably forget about the PBS program over the course of the academic term since the program has a single payment at the end of the term. To address this possibility, MDRC worked with Lorain, Owens, and Sinclair to craft upbeat e-mail reminders and postcards to send to students throughout the academic term. The language was standardized and designed to remind students of the value of higher education, the potential to earn the performance-based scholarship, and the availability of academic resources on each campus. They also contained information about the performance benchmark and scholarship amounts. Students in the program group received six e-mail reminders per academic year — three per semester at Lorain and Owens, and two per quarter at Sinclair. The timing of the reminders was designed to coincide with crucial points during each term, such as students' midterm and final exams, in order to help them stay focused on the performance-based scholarship payment.

Monitoring and Scholarship Disbursement

The progress of program group students was checked at the end of the academic term to determine whether they were eligible to receive the performance-based scholarship payment. Given that this program did not have a counseling component, the scholarship payment staff restricted their interaction with students to answering questions if students called either to find out when they would receive payments or to learn what other financial aid options were available to them in the event that they missed scholarship payments. At the end of the academic term, the colleges reviewed students' transcripts to verify whether they had met the benchmark. The payments were made by check, direct deposit to a checking account, or direct deposit to a campus spending card.

MDRC visited the three Ohio colleges one time each, in the spring of 2009, to confirm accurate performance tracking and award disbursement of the performance-based scholarship. Lorain, Owens, and Sinclair walked MDRC through their performance monitoring system, their disbursement protocol, and financial aid databases in a step-by-step fashion. In addition, MDRC reviewed the transcripts of a randomly selected sample of program students to confirm that

course-level performance had been accurately assessed, and that the appropriate payments (part time, full time, or none) had been made to the students. All three colleges demonstrated a strong capacity for the accurate monitoring of student progress and disbursement of the performance-based scholarship.

After the awards were made, program students received a follow-up letter as an additional reinforcement to help them keep their future scholarship eligibility in mind. Students who met the benchmark and received the payment were congratulated on their hard work and encouraged to maintain their level of effort in future academic terms. Students who failed to meet the benchmark were reminded about the scholarship and reassured that, although they had not earned the award in this term, they had a remaining term or terms of program eligibility during which they could earn the scholarship. The fall 2008 cohort students at Lorain and Owens had one semester of remaining eligibility; the fall 2008 cohort students at Sinclair had two quarters of remaining eligibility. (See Box 2 for an explanation of the differences between semester-based and quarter-based schools.) They did not, however, have their eligibility extended beyond the program period of one academic year.

Data Sources

Several data sources are used in the analyses presented in this report. First, as mentioned earlier, students completed a questionnaire on baseline information before being randomly assigned to the program group or control group. The BIF covered a range of demographic and other background information on students prior to their participation in, and thus any influence by, the program. Baseline data are used to describe the sample and assess the success of random assignment, and in future reports may be used to make statistical adjustments and classify subgroups of sample members. Second, MDRC obtained financial aid data for program and control group members before and after random assignment took place. Those data permit an examination of how the addition of the performance-based scholarships affected students' financial aid packages. Third, the three colleges provided MDRC with scholarship payment records, which are presented in this report to answer the question, "Was there a program?" Last, the Ohio Board of Regents (OBR) provided student-level transcript data for the program group and control group members in the study. The OBR compiles data supplied by Ohio's colleges and universities and keeps a comprehensive database with data on students, courses, faculty, facilities, and finances. The OBR provided data on individual courses taken by each student, their credit value, and whether the student earned the credit. Those data are used to provide a detailed look at sample members' performance in college through various measures such as enrollment, credits attempted, and credits earned. Data from the OBR also permit tracking students who transfer within Ohio postsecondary institutions. Such transfer students will be investigated in a future report.

Box 2

Semester-Based Schools Versus Quarter-Based Schools

The academic year at Lorain County Community College and Owens Community College was based on a semester system, while at Sinclair Community College, the academic year was based on a quarter system. Semester-based schools such as Lorain and Owens generally have two semesters of 15 weeks each during the fall and spring, plus optional summer sessions of varying lengths. Quarter-based schools like Sinclair usually divide the calendar year into four quarters, each about 10 weeks long, with three quarters (fall, winter, and spring) constituting one academic year (and summer is optional). Thus, in an academic year, both semester-based schools and quarter-based schools have approximately 30 weeks of instruction, with two semesters equivalent to three quarters.

Both semester-based and quarter-based schools use credits to define the number of academic hours of instruction for a course, per week. For example, a three-credit course would generally have three hours of instruction in a week, regardless of whether it was taken at a semester-based or quarter-based school. However, this same three-credit course would take 15 weeks to complete at a semester-based school, while taking only 10 weeks to complete at a quarter-based school. To adjust for this, the two types of schools generally require a different number of credits for a degree. Lorain and Owens generally require 60 to 75 "semester credits" for an associate's degree, while at Sinclair the range is between 90 and 110 "quarter credits." Semester-based schools use semester credits to define part-time and full-time enrollment, and quarter-based schools use quarter credits to define part-time and full-time enrollment.

In order to show these two types of schools equivalently, credits attempted and earned at Sinclair have been multiplied by two-thirds in the tables in this report. This adjustment equalizes the credits and is consistent with the way in which schools deal with credits transferred between quarter-based and semester-based schools, as well as how schools convert from one system to the other. Using these semester-equivalent credits (or *adjusted* credits) at Sinclair, the results from these three schools can be pooled.

Throughout this report, part-time enrollment and credits earned refers to 6 to 11 *unadjusted* credits, and full-time enrollment and credits earned refers to 12 or more *unadjusted* credits. Similarly, a part-time scholarship is awarded if the student earned a "C" or better for 6 to 11 *unadjusted* credits, and a full-time scholarship is awarded if the student earned a "C" or better for 12 or more *unadjusted* credits.

Characteristics of the Performance-Based Scholarship Sample

The full sample of students in the Ohio colleges comprises 2,285 students. Of this number, 60 percent of students were randomly assigned to the program group, and the rest were assigned to the control group. As already noted, this report presents the early findings of the first cohort (fall 2008), which consists of nearly 60 percent of the full sample of students in the Ohio colleges (1,329 students out of 2,285). Table 2 presents the demographic characteristics of the students in the fall 2008 cohort who enrolled in the PBS study at all three Ohio colleges.

The sample represents a nontraditional, college-going population, with the average age being around 30 years, and over 60 percent of the sample age 27 or above. Almost half graduated from high school or received their General Educational Development (GED) certificate more than 10 years prior to enrolling in the study. In addition, the sample is overwhelmingly female, with only 10 percent of students being male. Close to 80 percent are unmarried, and nearly all of the sample members have at least one child, as required by the eligibility criteria.[25] Almost one-third of the sample reported having three or more children. Together, these characteristics indicate that the sample is made up primarily of single mothers. In fact, more than 70 percent of the sample members are unmarried female parents (not shown in the table).[26]

Fewer than 2 percent of the sample members are financially dependent on their parents, and more than 70 percent of the sample said that someone in their household received government benefits such as food stamps, cash assistance or welfare, Section 8 or public housing assistance, and so forth. Almost half of the sample members were employed at the time they completed the BIF, and of those who were employed, 60 percent were working more than 20 hours per week. Thus, many sample members were balancing family duties with school and work responsibilities.

About a third of the students reported that they were the first person in their family to attend college, and two-thirds said that their main reason for enrolling in college was to obtain an associate's degree.

[25]Two students in the table are shown as having no children but those students were confirmed to be either pregnant or the legal guardian of a minor child at the time of intake and were thus eligible for the scholarship.

[26]This percentage includes students who are unmarried and living with their partner. Female parents who are unmarried and not living with their partner account for over 60 percent of the sample (not shown in table).

The Performance-Based Scholarship Demonstration

Table 2

Selected Characteristics of Sample Members at Baseline: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Characteristic	Full Sample
Gender (%)	
Male	10.4
Female	89.6
Age (%)	
18-26 years	39.7
27-30 years	19.7
31 years and over	40.6
Average age (years)	30.1
Marital status (%)	
Married	21.1
Unmarried	78.9
Race/ethnicity[a] (%)	
Hispanic	8.7
White	54.8
Black	31.3
Asian or Pacific Islander	0.5
Other	4.6
Number of children (%)	
0	0.2
1	40.2
2	29.3
3 or more	30.4
Among sample members with children	
Average age of youngest child (years)	*5.0*
Household receiving any government benefits[b] (%)	70.4
Financially dependent on parents (%)	1.7
Currently employed (%)	49.8
Among those currently employed	
Number of hours worked per week in current job (%)	
1-10	*7.4*
11-20	*32.6*
21-30	*30.9*
31-40	*27.2*
More than 40	*1.8*
Average hourly wage at current job ($)	*9.1*

(continued)

Table 2 (continued)

Characteristic	Full Sample
Highest grade completed (%)	
10 or lower	11.4
11	10.9
12	77.7
Diplomas/degrees earned[c] (%)	
High school diploma	74.8
GED certificate	22.8
Occupational/technical certificate	15.5
Associate's degree or higher	0.7
None of the above	1.5
Date of high school graduation/GED certificate receipt (%)	
During the past year	5.2
Between 1 and 5 years ago	19.5
Between 5 and 10 years ago	28.3
More than 10 years ago	47.1
Main reason for enrolling in college[c] (%)	
To complete a certificate program	6.6
To obtain an associate's degree	67.4
To transfer to a 4-year college/university	21.4
To obtain/update job skills	4.9
Other	2.1
First person in family to attend college (%)	30.7
Highest degree/diploma earned by father[d] (%)	
Not a high school graduate	23.4
High school diploma or GED certificate	46.4
Some college or associate's degree	20.2
Bachelor's degree or higher	10.1
Highest degree/diploma earned by mother[e] (%)	
Not a high school graduate	17.5
High school diploma or GED certificate	42.3
Some college or associate's degree	30.5
Bachelor's degree or higher	9.7
Language other than English spoken regularly in home (%)	4.1
Sample Size	1,329

(continued)

Table 2 (continued)

SOURCE: MDRC calculations using Baseline Information Form (BIF) data.

NOTES: Characteristics shown in italic type are calculated for a proportion of the full sample.

Missing values are not included in individual variable distributions. Any characteristic with more than 5 percent of the sample missing a response is noted in the footnotes.

Distributions may not add to 100 percent because of rounding.

[a]Respondents who said they are Hispanic and chose a race are included only in the Hispanic category. Respondents who said they are not Hispanic and chose more than one race are considered multiracial. These respondents, combined with those who said they are American Indian /Alaskan Native or another race/ethnicity, are included in "Other."

[b]Benefits include unemployment/dislocated worker benefits, Supplemental Security Income (SSI) or disability, cash assistance or welfare, food stamps, and Section 8 or public housing.

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

[d]Excludes 22 percent of the sample who either did not know or declined to answer this question.

[e]Excludes 9 percent of the sample who either did not know or declined to answer this question.

Appendix Table A.1 shows the same demographic characteristics as those reported in Table 2 for the full sample, the program group, and the control group of the fall 2008 cohort. An asterisk in the far-right column of the table indicates that the percentage of program group members with that characteristic is significantly different from the percentage of control group members. This means that there is only a small probability that the observed difference occurred by chance. There are a few differences between the two research groups, but no more than would be expected to occur by chance.[27]

Effect of the Performance-Based Scholarship Program on the Financial Aid Package

A student's financial aid package contains all the various forms of aid that a student is scheduled to receive in a specific term or academic year. Its composition relies on numerous moving parts such as the characteristics of the U.S. Department of Education's Free Application for Federal Student Aid, or FAFSA (described earlier, in Box 1), student preferences, and institutional rules. The resulting financial aid package is extremely complex and may change many times before a disbursement is made to the student. When additional forms of aid are added to or removed from the total aid package (as was the case with the performance-based scholarship), the financial aid is said to be "repackaged."

[27]In addition, an omnibus test was conducted to assess whether overall systematic differences in baseline characteristics were observed between the two research groups. The model's likelihood ratio test yielded a p-value of 0.83. Convention suggests that this probability of differences occurring by chance is large enough that these differences can be ignored in the analysis.

As explained earlier in Box 1, unmet need for the Ohio program population is the cost of attendance minus the individual student's financial aid package, minus the student's Expected Family Contribution. In situations where students had unmet need that was lower than the amount of the performance-based scholarship, the addition of the scholarship had the potential to reduce other forms of aid, usually loans. This possibility is partly a result of the nature of the Ohio community colleges in the study, which have lower costs of attendance than the average Ohio community college. In addition, the eligibility criteria for the scholarship required students to have an EFC of zero, which meant that these students were eligible for the maximum amounts of federal and state need-based financial aid. Students with high levels of unmet need would have ample room in their financial aid package for the scholarship, and could add it without affecting their other aid dollars.

Though the PBS intervention was not geared specifically to reduce loans, the colleges and MDRC agreed that loans should be reduced first in cases where students had low levels of unmet need, before any other forms of aid were changed. There was a general consensus that while reducing loans may be troublesome for some students in the short term, the reduction in educational debt would be better for students in the long run. Recent data from the U.S. Department of Education's National Postsecondary Student Aid Study reveal that of the students who earned an associate's degree in the 2007-2008 academic year, 48 percent graduated with some student debt.[28] For students who are able to successfully enter the workforce, average debt levels are manageable, but other students may find themselves with burdensome repayment obligations that are difficult to meet. Thus, the Ohio program colleges and MDRC worked to ensure that additional scholarship dollars would reduce the amount of loans in student packages first, before affecting other aid, and that students understood their ultimate financial aid package.

While most students were pleased with the reduction in their loan debt, some students struggled with the one-time payment of the scholarship at the end of the term. The structure was difficult for students with immediate financial need who could not afford to wait until the end of the academic term, and was particularly challenging in the first term of the scholarship. Because of the sensitivities around student preferences for loans instead of grants in these specific circumstances, students were given the choice to opt out of the scholarship for one or more terms. In such cases, the scholarship was not added to their financial aid package during any opt-out term. However, they could opt back into the scholarship program and would maintain their

[28]Steele and Baum (2009).

award eligibility for any remaining terms of the scholarship. In the fall 2008 cohort, only 14 students selected this option for one or more terms (around 1 percent).[29]

In order to track and monitor changes to financial aid packages across program and control group students, financial aid "snapshots" were collected, which detailed students' aid packages for the term at particular points in time. By collecting snapshots of students' financial aid packages before and after the scholarship was added, the number of students affected by the repackaging of aid and the net effect of this repackaging could be determined. In addition, the snapshots would affirm whether or not the scholarship reduced student loan debt as originally intended. These snapshots indicate the financial aid that was awarded to the student and the dollar amount for which the student was eligible. They are not necessarily the amounts that were disbursed to students, as these payments can happen at various points during the term.

Table 3 shows the results of this analysis (reflecting financial aid that was *awarded* but not necessarily received).[30] The first column shows the results for the program group, the second column shows the results for the control group, and the third column shows the difference between the two groups. An asterisk indicates that the outcome for program group members is significantly different from the outcome for control group members. The far-right column shows the standard error of the impact estimate (a measure of uncertainty or variability around the impact estimate).

The first panel in Table 3 ("Initial snapshot") provides a baseline look at study students' financial aid packages before the performance-based scholarship was included. It shows the average dollar amount awarded for the various categories of aid (Pell Grants, other grants, subsidized loans, unsubsidized loans, and Federal Work-Study), across all students who have a snapshot. On average, study students were awarded more than $4,000 in financial aid, with a large proportion of this aid coming from federal Pell Grants, but also from other grants and loans. As expected, there are no major differences between the program group and the control group at baseline.

The second panel in the table ("Midterm snapshot") shows similar information after the scholarship was added to the package. In terms of total financial aid dollars, program group members were awarded, on average, $340 more than control group members. While program

[29]An additional 35 students from the fall 2008 cohort chose to withdraw from the study completely. Those students are not included in any of the analyses completed for this report. The final report will provide more detail about recruitment and withdrawals.

[30]This analysis excludes 115 students, representing 9 percent of the overall sample, for whom this information was not available (29 students who did not have an initial or midterm snapshot, and 86 students for whom financial aid was repackaged before an initial snapshot could be collected).

The Performance-Based Scholarship Demonstration

Table 3

Impacts on Financial Aid Awarded During the First Program Term: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Initial snapshot ($)				
Total financial assistance awarded	4,035	4,060	-25	94.2
Federal Pell grant	1,790	1,815	-26	33.2
Performance-based scholarship	0	0	0	0.0
Other grants[a]	712	690	21	25.0
Subsidized loans	796	812	-16	40.2
Unsubsidized loans	702	694	8	49.2
Federal Work Study	36	50	-13	17.5
Midterm snapshot ($)				
Total financial assistance awarded	4,504	4,164	340 ***	91.6
Federal Pell grant	1,699	1,754	-55	33.5
Performance-based scholarship	676	0	676 ***	8.8
Other grants[a]	654	659	-5	26.5
Subsidized loans	779	901	-122 ***	38.6
Unsubsidized loans	650	765	-115 **	47.0
Federal Work Study	45	84	-39 *	21.7
Loan displacement (%)				
Complete removal of subsidized loans from initial to midterm	2.2	0.6	1.7 **	0.7
Complete removal of unsubsidized loans from initial to midterm	9.4	0.5	8.9 ***	1.3
Loans decreased by 10 percent or more of the initial total aid awarded	25.9	1.1	24.8 ***	1.9
Sample size (total = 1,214)	720	494		

SOURCES: MDRC calculations from financial aid data provided by Lorain County, Owens, and Sinclair Community Colleges. This excludes students who did not have an initial or midterm snapshot (29 students: 14 program group, 15 control group). It further excludes Lorain students whose financial aid was repackaged before the initial snapshot could be collected (86 students: 48 program group, 38 control group).

NOTES: Distributions may not add to 100 percent because of rounding.

A two-tailed t-test was applied to differences between the research groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates are adjusted by campus.

Reported figures are based on amounts awarded to students, not actual receipt.

[a]This measure includes all grants and scholarships excluding the Pell Grant and the full-time and part-time performance-based scholarships. The Ohio College Opportunity Grant is thus included in this figure.

group students were awarded, on average, $676 more in performance-based scholarship dollars, they were also awarded $122 less in subsidized loans, and $115 less in unsubsidized loans. These results are all statistically significant, and indicate that the scholarship is replacing some student loans. Loans make up a lower proportion of total financial aid for program group students than for control group students. While this finding was expected, the fact remains that though students were awarded $676 more in scholarship dollars, their total aid increased by only $340. The effects of the program are somewhat diluted in that some of the benefit of the program occurred through a reduction in loans rather than a full increase in aid. Therefore, the findings presented here should be viewed with that result in mind.

The third panel depicts some interesting measures on loan displacement. The first two rows show the proportion of students who had a subsidized or unsubsidized loan in the initial snapshot, but not the midterm snapshot. Not all loans are considered equal. In general, subsidized loans are more advantageous to students because the government pays the interest on the loan while the student is in school. Thus, the displacement of unsubsidized loans is preferred over subsidized loans, and schools tend to reduce unsubsidized loans in students' aid packages before touching subsidized loans. As expected, there were very few students who had a subsidized loan in the initial snapshot but then lost it completely, in either the program group or the control group. However, 9.4 percent of program group members had an unsubsidized loan in the initial snapshot and no unsubsidized loan in the midterm snapshot, versus 0.5 percent of control group members. This difference is statistically significant. The last measure shows the proportion of students who had their loans decreased by 10 percent or more of their total initial aid awarded (or by around $400). More than 25 percent of program group students had a loan reduction of 10 percent or more of their total initial aid package, versus only 1 percent of control group students. This 24.8 percentage point impact is statistically significant. These results are in line with the desired outcome of the program.

Students who elected to keep the scholarship in their package and reduce their loans, but failed to meet the benchmark for the scholarship at the end of the term, were in a somewhat precarious position. They did not take as many loan dollars at the beginning of the term, and, because their grades were poor, they did not get their anticipated aid. Of the students who did not earn the scholarship, around one-third had reduced their loans from the initial to midterm snapshot, possibly to make room for the scholarship in their package (around 9 percent of the program group with financial aid snapshots available). While some of these students may have been hindered by having fewer aid dollars ultimately awarded to them, the positive news is that they are not left with additional loan debt arising from courses that they may have failed or from which they withdrew.

Scholarship Receipt

Students in the program group at Lorain and Owens were eligible to receive a full-time performance-based scholarship of $900 per semester (or a part-time scholarship of $450 per semester) for two consecutive semesters following random assignment. Students in the program group at Sinclair were eligible to receive a full-time scholarship of $600 per quarter (or a part-time scholarship of $300 per quarter) for three consecutive quarters following random assignment. Each scholarship was distributed in one payment at the end of the term upon verifying that the student met the performance benchmark. At all schools, the maximum total scholarship over the year was $1,800. As explained earlier in Box 2, the part-time and full-time awards were based on unadjusted credits. That is, the receipt of a full-time scholarship at all three schools means that the student earned a "C" or better in courses totaling 12 or more unadjusted credits, and the receipt of a part-time scholarship indicates a "C" or better in courses totaling 6 to 11 unadjusted credits.

The proportion of students in the program group who earned the scholarship measures the level of participation in the program. Table 4 presents the scholarship receipt rates for the program year of the first cohort. During the first program term, almost three-fourths of program group students received a full-time or part-time scholarship, with 33 percent meeting the full-time benchmark and 41 percent meeting the part-time benchmark.

The second panel of Table 4 shows that about 60 percent of program group members received a scholarship payment in their second program term. Here, the split between part-time and full-time scholarships is about 30 percent each.

While the first two panels of Table 4 show the first two terms for all three colleges in the study, the third panel reflects Sinclair's program group students only, who were eligible for the scholarship over three quarters instead of two semesters. In this final quarter at Sinclair, almost 60 percent of program group students received a scholarship, with 26 percent receiving a full-time award and 31 percent receiving a part-time award.

The final panel of Table 4 summarizes the entire program year for all three schools. Over 80 percent of students received a scholarship in at least one of the program terms, indicating that some students missed the performance benchmark in the first program term, but were able to meet the criteria in the second program term. It also reflects that a group of students never registered, dropped out, or were unable to earn the performance benchmark in any term. In addition, just over half of the students received a scholarship in every term in which they were eligible, while 17 percent received the full-time award in all program terms. The average scholarship amount received over the program year was $868, or approximately 48 percent of

The Performance-Based Scholarship Demonstration

Table 4

Scholarship Receipt Among the Program Group Members: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Outcome	Program Group
First program term (%)	
Received a scholarship payment	73.5
Received full-time scholarship	32.9
Received part-time scholarship	40.7
Second program term (%)	
Received a scholarship payment	60.6
Received full-time scholarship	29.8
Received part-time scholarship	30.8
Sample size	782
Third program term (Sinclair only)[a] (%)	
Received a scholarship payment	57.3
Received full-time scholarship	26.3
Received part-time scholarship	31.0
Sample size	255
Summary	
Received any scholarship payment (%)	80.9
Received scholarship payments in all payment terms (%)	51.0
Received full-time scholarship in all terms	16.5
Average total scholarship amount received among all program group members ($)	868
Average total scholarship among recipients	*1,072*
Sample size	782

SOURCE: MDRC calculations from fall 2008 scholarship payment data provided by Lorain County, Owens, and Sinclair Community Colleges.

NOTES: Items shown in italic type are calculated for a proportion of the full sample.

Sample members receive a part-time payment at the end of the term for completing 6 to 11 credits with a grade of "C" or higher, or a full-time payment at the end of the term for completing 12 or more credits with a grade of "C" or higher.

[a]The third program term applies only to Sinclair because the scholarship was available over three quarters (versus two semesters at Lorain and Owens).

the maximum total scholarship available, assuming a full-time award in each term.[31] Among those students who received any scholarship payment, the average scholarship amount received over the program year was $1,072.

An Early Look at Program Impacts

As discussed earlier, a key goal of evaluating performance-based scholarships is to test whether such scholarships increase students' academic success in college. During the program year, it is expected that the scholarship may induce the program group to persist at higher rates, attempt more credits, and earn more credits. This section focuses on the impacts of the Ohio program on those educational outcomes.[32] Note that for measures such as the number of credits attempted and earned, the credits have been adjusted as described earlier in Box 2. The credits shown for these measures are semester-equivalent, or adjusted credits, and have been multiplied by two-thirds for Sinclair students. Measures such as full-time and part-time enrollment, earned 12 or more credits, and earned 6 to 11 credits are based on unadjusted credits.

First Program Term

The top panel of Table 5 shows the results for the first program term. Nearly all the students in the program group and control group registered for at least one course, and they registered full time or part time at about the same rate. Similarly, there was no detectable difference between program group and control group members in the number of credits attempted. Given that the point of random assignment generally occurred after students had already decided to matriculate, these results are not surprising.

However, students in the program group earned almost one credit more, on average, than students in the control group. Given that students in the program group and the control group registered for courses at similar rates, and that there is an impact on the number of credits earned, the scholarship appears to be encouraging students to meet the performance benchmark. Students in the program group were also 7.0 percentage points more likely to earn 12 or more credits within the term than students in the control group, which represents an increase of 24 percent. Lastly, students in the program group were 12.5 percentage points more likely to pass all of the courses they attempted, indicating that the scholarship may have encouraged some

[31]This amount is the average amount *received* over the *program year*, whereas the amount cited in the previous section ($676) was the average amount *awarded* over the *first program term*.

[32]No analysis of GPA is included in this report. However, since the scholarship benchmark was based on the number of credits earned with a grade of "C" or better, the measure of credits earned is a better proxy for whether students met the benchmark. Credits earned include "D" grades, which do not count toward the scholarship criteria. An analysis of GPA will be completed in a future report.

The Performance-Based Scholarship Demonstration

Table 5

Educational Outcomes for the Program Year: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Outcome	Program Group	Control Group	Difference	Standard Error
First program term				
Registered for any courses (%)	97.4	97.1	0.3	0.9
Enrolled full time[a]	61.4	64.3	-2.8	2.6
Enrolled part time[a]	34.8	31.0	3.8	2.6
Number of credits attempted[b]	9.6	9.7	0.0	0.2
Regular credits	8.2	8.1	0.1	0.2
Developmental credits	1.4	1.6	-0.1	0.1
Number of credits earned[b]	7.4	6.7	0.7 ***	0.2
Regular credits	6.5	5.9	0.6 ***	0.2
Developmental credits	0.9	0.9	0.1	0.1
Earned 12 or more credits[a] (%)	35.8	28.9	7.0 ***	2.6
Earned 6 to 11 credits[a] (%)	41.1	40.7	0.4	2.7
Passed all courses (%)	57.9	45.4	12.5 ***	2.8
Second program term				
Registered for any courses (%)	84.2	82.5	1.7	2.1
Enrolled full time[a]	55.4	49.1	6.3 **	2.7
Enrolled part time[a]	27.5	29.0	-1.5	2.4
Number of credits attempted[b]	8.5	8.0	0.6 **	0.3
Regular credits	7.7	7.0	0.7 ***	0.2
Developmental credits	0.8	0.9	-0.1	0.1
Number of credits earned[b]	6.4	5.5	1.0 ***	0.3
Regular credits	6.0	5.0	1.0 ***	0.3
Developmental credits	0.5	0.5	0.0	0.1
Earned 12 or more credits[a] (%)	33.1	20.4	12.7 ***	2.5
Earned 6 to 11 credits[a] (%)	32.1	37.0	-4.9 *	2.6
Passed all courses (%)	46.7	39.1	7.5 ***	2.8
Sample size (total = 1,329)	782	547		

(continued)

Table 5 (continued)

Outcome	Program Group	Control Group	Difference	Standard Error
Third program term (Sinclair only)[c]				
Registered for any courses (%)	75.7	73.8	1.9	4.2
Enrolled full time[a]	49.0	50.3	-1.2	4.8
Enrolled part time[a]	24.3	19.8	4.5	4.0
Number of credits attempted[b]	5.6	5.5	0.1	0.4
Regular credits	5.3	5.2	0.1	0.4
Developmental credits	0.3	0.3	0.0	0.1
Number of credits earned[b]	4.5	3.6	0.9 **	0.3
Regular credits	4.4	3.5	0.9 ***	0.3
Developmental credits	0.1	0.1	0.0	0.1
Earned 12 or more credits[a] (%)	28.2	24.1	4.2	4.3
Earned 6 to 11 credits[a] (%)	32.5	23.5	9.0 **	4.3
Passed all courses (%)	45.9	33.2	12.7 ***	4.7
Sample size (total = 442)	255	187		

SOURCE: MDRC calculations from Ohio Board of Regents transcript data for the fall 2008 cohort.

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

A two-tailed t-test was applied to differences between research groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates are adjusted by campus.

[a]These data are based on *unadjusted* credits. "Full time" is defined as a total of 12 or more semester or quarter credits during the term — that is, 12 or more *unadjusted* credits. "Part time" is defined as 6 to 11 semester or quarter credits during the term — that is, 6 to 11 *unadjusted* credits.

[b]These data are based on semester-equivalent or *adjusted* credits.

[c]The third program term applies only to Sinclair because the scholarship was available over three quarters (versus two semesters at Lorain and Owens). The sample size here is 442 students, versus the full fall 2008 cohort sample size of 1,329.

program group students to remain in their classes rather than withdraw, or motivated them to perform better in their initial course load. All of these differences are statistically significant, meaning that the differences are not likely due to chance.

As noted earlier, the PBS Demonstration in Ohio was not targeted to students requiring developmental education, nor was it designed to particularly affect this group. Nonetheless, over 35 percent of the fall 2008 cohort took at least one developmental education class in the first program year (not shown in tables). Students requiring developmental education will be a subgroup of interest in a future report, where they will be investigated more thoroughly.

Second Program Term

The second panel of Table 5 shows the results for the second program term. When considering that the second term registration rates were 84 percent for the program group and 83 percent for the control group, it is clear that there was already a high rate of persistence in the second term for this cohort. There was not a large problem with retention and the program had little impact (and little room for impact) on this measure. However, this outcome will be examined closely in future reports.

In the second program term, program group students were 6.3 percentage points more likely to enroll full time than control group students (an increase of 13 percent), and attempted 0.6 more credit on average than control group students. These differences are statistically significant. Since the first term's scholarship was paid at the end of the term, it is reasonable to expect that impacts in attendance status would occur in the second term, not the first. The impact on full-time enrollment in the second program term may suggest that the scholarship that students received from the first term helped make a full-time course load more affordable for students, or that students were motivated by the higher full-time award amount. It is also possible that the scholarship enabled working students who would have otherwise attended part time to reduce their hours at a job, or enabled some parents to pay for child care while they attended more classes.[33]

In the second program term, students in the program group earned one full credit more, on average, than students in the control group. Given that students in the program group attempted 0.6 credit more on average, but earned 1 credit more, the impact on credits earned is not solely due to program group students attempting more credits. This finding is further substantiated when examining the proportion of students who passed all their courses. Program group students were 7.5 percentage points more likely to pass all their courses. Lastly, students in the program group were 12.7 percentage points more likely to earn 12 or more credits than students in the control group, an increase of 62 percent. These differences are all statistically significant. Thus, even though registration rates were comparable between the two groups, program group members attempted more credits in the second program term and ultimately earned more credits as well.

Third Program Term (Sinclair Only)

The third panel in Table 5 shows the results for the third program term for Sinclair Community College. The sample size here is 442 students, or the number of students in the fall

[33]Survey results in a future report will help shed light on which of these factors contributed most to the findings.

2008 cohort at Sinclair, rather than the full fall 2008 cohort of 1,329 students at all three colleges. Thus, the power to detect impacts has been weakened when looking at this Sinclair term in isolation. Registration rates drop to about 75 percent overall, with still no detectable difference between program and control groups. There is also no impact on full-time or part-time enrollment, or on the number of credits attempted. However, there is a statistically significant impact of almost one full credit earned, and students in the program group were 12.7 percentage points more likely to pass all their courses.

The Full Program Year

Table 6 shows the outcomes of interest over the entire program year. For Lorain and Owens, the program year for the fall 2008 cohort comprises the fall 2008 and spring 2009 semesters. For Sinclair, the program year for the fall 2008 cohort comprises the fall 2008, winter 2009, and spring 2009 quarters.

Since almost every student in both the program and control groups had registered for the first program term, the measure of registration in any program term consists of almost the entire fall 2008 cohort. There are no detectable differences in registration or credits attempted.

However, program group students earned approximately two credits more than control group students over the program year, a 14 percent increase in credits earned. This difference is statistically significant. In addition, program group members were 6.6 percentage points more likely to earn 24 or more credits than control group members, an increase of 43 percent. This measure is a proxy for full-time attendance and credit completion during some or all of the program terms. Numerous studies have documented that part-time attendance is one of the critical risk factors that account for students' dropping out of college or not earning a college degree or credential.[34] It is encouraging that the PBS program is increasing the proportion of full-time students who are on track to earn a degree, especially given this nontraditional study population.

Conclusions

A look at the first program year of the first cohort of the PBS demonstration in Ohio suggests that the program encouraged students to earn more credits in all of the program terms, and to attempt more credits in the second program term. The program did not have any impact on the already high second-term persistence rate, but students in the program group earned approximately two full credits more over the year than students in the control group. At the

[34]Provasnik and Planty (2008); Horn and Berger (2005); Hoachlander, Sikora, and Horn (2003).

The Performance-Based Scholarship Demonstration

Table 6

Cumulative Academic Outcomes for the Program Year: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Outcome	Program Group	Control Group	Difference	Standard Error
Registered for any courses (%)	98.3	97.8	0.5	0.8
Number of credits attempted[a]	20.0	19.5	0.5	0.4
Regular credits	17.7	16.9	0.8 *	0.4
Developmental credits	2.4	2.6	-0.2	0.2
Number of credits earned[a]	15.3	13.4	2.0 ***	0.5
Regular credits	13.9	12.0	1.9 ***	0.5
Developmental credits	1.4	1.4	0.1	0.2
Earned 24 or more credits[a] (%)	22.0	15.4	6.6 ***	2.2
Earned 12 to 23 credits[a] (%)	45.0	45.0	-0.1	2.8
Sample size (total = 1,329)	782	547		

SOURCE: MDRC calculations from Ohio Board of Regents transcript data for the fall 2008 cohort.

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

A two-tailed t-test was applied to differences between research groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates are adjusted by campus.

The program year is considered the fall 2008 and spring 2009 semesters for semester-based schools, and the fall 2008, winter 2009 and spring 2009 quarters for quarter-based schools.

[a]These are based on semester-equivalent or *adjusted* credits.

institutions in this study, this increase in credits can sometimes account for one full course that counts toward a student's degree requirements. This impact seems like a large one, but whether it is enough to produce higher graduation rates in the absence of retention impacts remains to be seen. An increase of about two credits over the year may be an indication that these students will have a shorter time to degree completion, but without a direct effect on persistence or graduation rates, these additional credits are not likely to cause major shifts in employment or earnings. Using longitudinal survey data, Kane and Rouse concluded that the average two-year and four-year college student earns roughly 5 percent more than high school graduates for every 30 credits completed.[35] A more recent paper by Jacobson and Mokher finds that median earnings were about 27 percent greater for students with a certificate (and 8 percent greater for

[35]Kane and Rouse (1993). This analysis uses data from the *National Longitudinal Study of the High School Class of 1972*.

students with an associate's degree) relative to students who left college without a credential, but this analysis was specific to the state of Florida.[36]

As discussed earlier, the PBS demonstration in Ohio tests a population that is very similar to the one studied in the Opening Doors demonstration in Louisiana. While Opening Doors Louisiana had three payment points throughout each semester and a counseling component, the Ohio intervention had a single payment point at the end of the term without counseling. The Louisiana program also had a single scholarship amount regardless of part-time or full-time status, while Ohio differentiated between part-time and full-time students. Thus, while the populations were similar, the same impacts were not necessarily expected. Early results from Opening Doors Louisiana showed impacts on credits attempted and earned in the first and second program semesters, similar to the impacts seen in the PBS program in Ohio. In the first program semester in Louisiana, program group students attempted 0.6 credit more and earned 1.2 credits more than control group students. In the second semester, program group students attempted 1.2 more credits and earned 1.1 more credits than control group students. However, part of the second semester impacts in Louisiana were driven by the 15.0 percentage point difference in the second semester registration rates. This same impact is not observed in Ohio, as both program and control group members had a high rate of persistence in the second term. This high persistence rate could be a result of situations that are specific to these Ohio colleges, or may more broadly be a result of the economic downturn that began in 2008. Also, the second term retention for this Ohio cohort is attributed to the winter and spring terms following the fall term, when retention rates are typically higher, whereas the Louisiana impact was pooled over all of its cohorts. It is possible that future cohorts and terms in the Ohio program may show impacts on retention from the spring to fall terms. Additionally, Louisiana had multiple payment points and students received part of their total award for simply enrolling at the college at least part time. In Ohio, all students had to meet the performance benchmark to earn the award, and there were no partial payments based on enrollment. Thus, MDRC had expected that a smaller proportion of program group students in Ohio would earn the scholarship compared with the students in Louisiana, and that the Ohio program could produce smaller impacts as a result. Lastly, it is possible that the counseling aspect of the Louisiana study played a role in helping to explain some of the different impacts that were observed in the two programs.

The findings in this early report are modest but encouraging. If the program can show lasting effects in the absence of the scholarship, and impacts in persistence are seen in the postprogram terms, such results could lead to higher graduation rates and translate into higher

[36]Jacobson and Mokher (2009). This analysis was completed based on comprehensive data from the state of Florida belonging to a cohort of 144,545 students in the ninth grade in 1996.

earnings. This is an early report on the first cohort, and these educational outcomes will be followed closely in the coming terms.

Next Steps

A research report on longer-term findings will be released in fall 2011. The report will contain findings from an in-depth implementation study, a qualitative study, and the impact study. The implementation study will describe in greater detail how the performance-based scholarship program operates, identify promising recruitment strategies and other best practices, and analyze whether the program operated as intended. The qualitative study will capture the experiences and insights of students and administrators through focus groups and interviews. The impact study will allow for a causal interpretation of the effect of performance-based scholarships on educational outcomes from administrative records (including student retention, credit accumulation, and graduation and transfer rates) and from a student survey (such as time spent studying, motivation, and use of scholarship monies).

Appendix A

Demographic Characteristics for the Full Sample, the Program Group, and the Control Group

The Performance-Based Scholarship Demonstration

Appendix Table A.1

Selected Characteristics of Sample Members at Baseline: Fall 2008 Cohort

Lorain County, Owens, and Sinclair Community Colleges

Characteristic	Full Sample	Program Group	Control Group	
Gender (%)				
Male	10.4	9.5	11.7	
Female	89.6	90.5	88.3	
Age (%)				
18-26 years	39.7	39.8	39.7	
27-30 years	19.7	20.0	19.4	
31 years and over	40.6	40.3	40.9	
Average age (years)	30.1	30.1	30.0	
Marital status (%)				
Married	21.1	21.9	20.0	
Unmarried	78.9	78.1	80.0	
Race/ethnicity[a] (%)				
Hispanic	8.7	8.4	9.2	
White	54.8	56.0	53.1	
Black	31.3	30.0	33.3	
Asian or Pacific Islander	0.5	0.5	0.6	
Other	4.6	5.1	3.9	
Number of children (%)				
0	0.2	0.3	0.0	
1	40.2	39.1	41.7	
2	29.3	30.4	27.8	
3 or more	30.4	30.2	30.5	
Among sample members with children				
Average age of youngest child (years)	*5.0*	*5.0*	*5.0*	
Household receiving any government benefits[b] (%)	70.4	68.1	73.6	**
Financially dependent on parents (%)	1.7	1.7	1.7	
Currently employed (%)	49.8	49.2	50.7	
Among those currently employed				
Number of hours worked per week in current job (%)				
1-10	7.4	8.0	6.6	
11-20	32.6	30.8	35.1	
21-30	30.9	32.4	28.9	
31-40	27.2	26.2	28.7	
More than 40	1.8	2.7	0.7	
Average hourly wage at current job ($)	9.1	9.2	9.0	

(continued)

Appendix Table A.1 (continued)

Characteristic	Full Sample	Program Group	Control Group	
Highest grade completed (%)				
10 or lower	11.4	11.8	10.8	
11	10.9	9.9	12.3	
12	77.7	78.4	76.8	
Diplomas/degrees earned[c] (%)				
High school diploma	74.8	75.1	74.5	
GED certificate	22.8	22.2	23.5	
Occupational/technical certificate	15.5	17.0	13.4	*
Associate's degree or higher	0.7	0.8	0.6	
None of the above	1.5	1.6	1.4	
Date of high school graduation/GED certificate receipt (%)				
During the past year	5.2	5.3	5.0	
Between 1 and 5 years ago	19.5	19.2	19.9	
Between 5 and 10 years ago	28.3	28.3	28.2	
More than 10 years ago	47.1	47.2	46.9	
Main reason for enrolling in college[c] (%)				
To complete a certificate program	6.6	6.2	7.2	
To obtain an associate's degree	67.4	68.3	66.2	
To transfer to a 4-year college/university	21.4	21.6	21.1	
To obtain/update job skills	4.9	4.2	6.0	
Other	2.1	2.1	2.2	
First person in family to attend college (%)	30.7	31.3	29.7	
Highest degree/diploma earned by father[d] (%)				
Not a high school graduate	23.4	24.7	21.4	
High school diploma or GED certificate	46.4	46.1	46.9	
Some college or associate's degree	20.2	18.1	23.1	**
Bachelor's degree or higher	10.1	11.1	8.7	
Highest degree/diploma earned by mother[e] (%)				
Not a high school graduate	17.5	17.5	17.5	
High school diploma or GED certificate	42.3	43.8	40.0	
Some college or associate's degree	30.5	30.1	31.0	
Bachelor's degree or higher	9.7	8.5	11.5	*
Language other than English spoken regularly in home (%)	4.1	3.7	4.6	
Sample Size	1,329	782	547	

(continued)

Appendix Table A.1 (continued)

SOURCE: MDRC calculations using Baseline Information Form (BIF) data.

NOTES: To analyze whether baseline characteristics jointly predicted research group status, a likelihood ratio test was performed. This yielded a p-value of 0.83. Convention suggests that this probability of differences occurring by chance is large enough that these differences can be ignored in the analyses.

A two-tailed t-test was applied to differences between research groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates are adjusted by campus.

Characteristics shown in italic type are calculated for a proportion of the full sample and indicate nonexperimental data. Significance tests are not calculated for nonexperimental data.

Missing values are not included in individual variable distributions. Any characteristic with more than 5 percent of the sample missing a response is noted in the footnotes.

Distributions may not add to 100 percent because of rounding.

[a]Respondents who said they are Hispanic and chose a race are included only in the Hispanic category. Respondents who said they are not Hispanic and chose more than one race are considered multiracial. These respondents, combined with those who said they are American Indian/Alaskan Native or another race/ethnicity, are included under "Other."

[b]Benefits include unemployment/dislocated worker benefits, Supplemental Security Income (SSI) or disability, cash assistance or welfare, food stamps, and Section 8 or public housing.

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

[d]Excludes 22 percent of the sample who either did not know or declined to answer this question.

[e]Excludes 9 percent of the sample who either did not know or decliend to answer this question.

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About MDRC

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

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

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

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

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