Increasing the academic success of students in college is a national imperative. While college enrollment has increased from 5.9 million students in 1965 to 20.4 million in 2009, graduation rates remain low. Just over half of students seeking a bachelor’s degree and enrolled in a four-year institution full time in fall 2002 had completed their degree within six years. Despite the marked increase in access to college since the passage of the Higher Education Act of 1965 — which extended need-based financial assistance to the general population for the first time — more work remains to be done to improve persistence in college and graduation rates.

Low-income students are at particular risk of not persisting to earn a certificate or degree, often because of competing priorities, financial pressures, and inadequate preparation for college. Financial aid may improve access to and persistence in college for this population. Research suggests that financial aid is positively associated with increased enrollment and with increased persistence. While most of the evidence is not causal, one random assignment study that provided need-based grants to students attending public universities in Wisconsin found modest impacts on some academic measures. The program targeted low-income parents, and the study sample was comprised of relatively older, unmarried, and mostly female students. Unfortunately, the devastation inflicted by Hurricane Katrina occurred during the study, making it difficult to confirm the program’s long-term effects. Building on these promising findings, MDRC launched the Performance-Based Scholarship (PBS) Demonstration in four states in 2008, followed by an additional two states in 2010. This brief summarizes the early findings of the
study, which show modest but positive effects on important markers of academic progress.

**How are performance-based scholarships supposed to work?**

By conditioning additional financial aid on certain performance benchmarks, the programs seek to encourage students to focus more on their studies, which, in turn, should lead them to perform better in their classes in the short term. In the medium term, they should progress through their degree requirements more quickly by increasing their term-to-term enrollment and their credits attempted and earned. Increases in these academic outcomes may then lead to long-term gains, including year-to-year persistence, more total cumulative credits earned, and graduation or transfer to a four-year or more selective college. Finally, if the effects on academic outcomes remain positive and strong, the intervention could lead to improved labor market outcomes, including higher earnings.

To this end, the project seeks to answer several questions:

- What is the impact of performance-based scholarships (in various settings with different types of students) on short-term academic outcomes, including credit attempts, credit completion, and grade point averages (GPA)?

- What is the impact of the scholarships on longer-term academic outcomes, including rates of persistence in school and attainment of degrees and credentials?

- How does variation in the amount and duration of the scholarships affect academic outcomes? For example, how do the impacts of a $1,000 scholarship over one term compare with those of a $1,000 scholarship over one year?

- For which types of students do the scholarships work best?

- How do the scholarships affect students’ academic motivation and behavior? What effect do they have on how students spend their time and on their mental well-being?

**The design of the performance-based scholarships in each state**

Table 1 summarizes the eligibility criteria and design variations for the programs in the six states in the PBS Demonstration. While the programs in each state vary by target population, performance benchmarks, scholarship amounts, and the integration of student services (among other things), there are some commonalities. All of the programs target low-income students, and the scholarships are paid directly to students, allowing them to use the funds for their most pressing needs, whether books, child care, or other financial obligations that may disrupt their studies. Importantly, the scholarships are paid in addition to Pell Grants — the main federal source of need-based aid — and other existing financial aid programs. In this way, students have more funds to cover academic and living expenses and can potentially reduce their dependency on loans. Lastly, unlike merit-based aid, performance-based scholarships are paid to
Table 1: Design of the Performance-Based Scholarships in Each State

<table>
<thead>
<tr>
<th>ELIGIBLE POPULATION</th>
<th>OHIO</th>
<th>NEW MEXICO</th>
<th>NEW YORK</th>
<th>CALIFORNIA</th>
<th>ARIZONA</th>
<th>FLORIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Zero EFC (^1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17 to 20</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshmen</td>
<td></td>
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<td></td>
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<tr>
<td>Pell-eligible</td>
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<tr>
<td>Age 22 to 35</td>
<td></td>
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<tr>
<td>Live away from</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Require developmental education</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Pell-eligible</td>
<td></td>
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<td></td>
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<tr>
<td>Age 16 to 19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school seniors applying for financial aid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below Cal Grant A/C income threshold (^2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Less than 45 credits earned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC below $5,273 (^3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 18+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In need of remedial math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC below $5,273 (^3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAXIMUM SCHOLARSHIP AMOUNT PER TERM</th>
<th>OHIO</th>
<th>NEW MEXICO</th>
<th>NEW YORK</th>
<th>CALIFORNIA</th>
<th>ARIZONA</th>
<th>FLORIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$600 (quarter institutions) to $900 (semester institutions)</td>
<td>$1,000</td>
<td>$1,300</td>
<td>$333 (quarter institutions) or $500 (semester institutions) to $1,000</td>
<td>$1,500</td>
<td>$600</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOLARSHIP DURATION</th>
<th>2 semesters or 3 quarters</th>
<th>4 semesters</th>
<th>2 full semesters and 1 summer semester (^4)</th>
<th>1 term to 2 years</th>
<th>3 semesters</th>
<th>3 semesters</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MAXIMUM TOTAL SCHOLARSHIP AMOUNT</th>
<th>OHIO</th>
<th>NEW MEXICO</th>
<th>NEW YORK</th>
<th>CALIFORNIA</th>
<th>ARIZONA</th>
<th>FLORIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,800</td>
<td>$4,000</td>
<td>$2,600 to $3,900</td>
<td>$1,000 to $4,000</td>
<td>$4,500</td>
<td>$1,800</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACADEMIC BENCHMARKS</th>
<th>Part time: 6 to 11 credits with “C” or better in each</th>
<th>Complete 12 or more credits (1st semester) or 15 credits (subsequent semesters) with a “C” or better average</th>
<th>6 or more credits with “C” or better in each</th>
<th>Complete 6 or more credits with a “C” or better average</th>
<th>Part time: 6 to 11 credits with “C” or better in each</th>
<th>Complete a sequence of math courses with a “C” or better in each</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ADDITIONAL SERVICE CRITERIA</th>
<th>None</th>
<th>Meet with adviser</th>
<th>None</th>
<th>None</th>
<th>Meet with adviser, complete tutoring and workshop requirements</th>
<th>Complete tutoring requirements</th>
</tr>
</thead>
</table>

\(^1\) The EFC (Expected Family Contribution) is the amount of money a family is expected to be able to contribute to a student’s education, as calculated according to federal guidelines. Students with a zero EFC are eligible for federal Pell Grants.

\(^2\) Cal Grant is a financial aid program funded by the state of California. The awards do not have to be paid back, but to qualify students must fall below the income and asset ceilings. Cal Grants A and C have the same income and asset ceilings. MDRC used this income ceiling as a cutoff for eligibility in California.

\(^3\) Students with an EFC of up to $5,273 during the 2010-2011 year are eligible for federal Pell Grants.

\(^4\) Half of the program group in New York are eligible for an additional summer performance-based scholarship.
FIGURE 1.
The Performance-Based Scholarship Demonstration
Impact on Credits Earned in MDRC’s Evaluations of Performance-Based Scholarship Programs

SOURCE: MDRC calculations from Delgado Community College, Louisiana Technical College-West Jefferson, Ohio Board of Regents, University of New Mexico, Borough of Manhattan Community College, and Hostos Community College transcript data.

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 cohort and campus.

a Louisiana results are from MDRC’s Opening Doors Demonstration.
students based on their academic performance in the current term, regardless of what happened in previous terms.

Each state tests the scholarships in a somewhat different way or with a different target population, as shown in Table 1. For example, the study in Ohio focuses on low-income parents and offers a part-time and full-time scholarship award at one of three community colleges. Conversely, in New Mexico, the sample consists of a traditional, college-going population at a four-year institution, with more stringent academic benchmarks to give students an incentive to graduate on time. In New York and Florida, the study targets students in need of developmental, or remedial, education; the study in Florida is designed to give students an incentive to pass a sequence of developmental math courses. A range of additional student services, such as tutoring and advising, are also linked to the scholarships in Arizona, Florida, and New Mexico, and the program in Arizona is a particularly cohesive program targeted toward a Hispanic male population. Lastly, the study in California is testing a statewide program, with a portable scholarship of varying amount and duration that students can take to any degree-granting, accredited postsecondary institution in the country.

Each study employs a random assignment research design, the “gold standard” in program evaluation. Random assignment creates two groups of students that are similar in characteristics that can be measured, such as age and gender, and in those that are more difficult to measure, such as tenacity and motivation. As a result, subsequent differences in outcomes (for instance, rates of persistence) can be attributed with a high level of confidence to the PBS program rather than to the types of students who enroll in the program.

In addition to the states listed in the table, MDRC is also working with the UNCF (United Negro College Fund), the nation’s largest minority education organization, to provide technical assistance in implementing performance-based scholarships at three UNCF member institutions: Benedict College and Claflin University in South Carolina and Florida Memorial University.

**EARLY FINDINGS FROM OHIO, NEW YORK, AND NEW MEXICO**

MDRC now has preliminary results from performance-based scholarship programs in Ohio, New York, and New Mexico, in addition to the original results in Louisiana. While the effects vary across these sites, there are some commonalities in the emerging findings. All of the impacts described below are statistically significant, indicating that the differences reported are likely to be caused by the programs rather than by chance.

**Increases in credits earned (see Figure 1).**

All the sites where performance-based scholarships were tested found impacts on credits earned in one or more semesters or terms.

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All the sites where performance-based scholarships were tested found impacts on credits earned in one or more semesters or terms.
FIGURE 2.
The Performance-Based Scholarship Demonstration
Impact on Students’ Abilities to Meet Benchmarks in MDRC’s Evaluations of Performance-Based Scholarship Programs

<table>
<thead>
<tr>
<th>Program group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>49.0</td>
</tr>
<tr>
<td>Ohio</td>
<td>35.8</td>
</tr>
<tr>
<td>New Mexico</td>
<td>78.7</td>
</tr>
<tr>
<td>New York</td>
<td>68.7</td>
</tr>
<tr>
<td>Louisiana</td>
<td>40.4</td>
</tr>
<tr>
<td>Ohio</td>
<td>33.1</td>
</tr>
<tr>
<td>New Mexico</td>
<td>48.1</td>
</tr>
</tbody>
</table>

**Impact** = 12.1

**Impact** = 7.0

**Impact** = 20.8

**Impact** = 16.4

**Impact** = 12.7

**Impact** = 16.4

**Impact** = 16.4

SOURCE: MDRC calculations from Delgado Community College, Louisiana Technical College-West Jefferson, Ohio Board of Regents, University of New Mexico, Borough of Manhattan Community College, and Hostos Community College transcript data.

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 cohort and campus.

In Louisiana, the end-of-term benchmark was earning 6 or more credits with an overall GPA of 2.0 or higher, and the measure shown above represents the proportion of students earning a GPA of 2.0 or higher. In Ohio, the full-time benchmark was earning 12 or more credits with a “C” or better in each, and the measure shown above represents the proportion of students earning 12 or more credits. In New York, the end-of-term benchmark was earning 6 or more credits with a “C” or better in each, and the measure shown above represents the proportion of students earning 12 or more credits. In New Mexico, the end-of-term benchmark was earning 12 or more credits (first term) or 15 or more credits (second term) with an overall GPA of 2.0 or higher, and the measure shown above represents this exactly.

a Louisiana results are from MDRC’s Opening Doors Demonstration.
earned an average of about two full credits more than the control group students over two terms of study. The New York site, which targets independent students in need of developmental education, had an increase of slightly more than half a credit earned in the first term (results from later terms will be available in a forthcoming report). The New Mexico study, which is the only one housed at a four-year institution, found no impact on credits earned over the first term, but showed an increase of 0.6 credits in the second term. While these impacts seem fairly modest, the increase in credits can sometimes account for one full course toward a student’s degree requirements, essentially shortening the time to degree completion by that amount.

- **Greater impacts in the second term.** All the sites, including the original Louisiana study, showed an increase in credits attempted and/or full-time enrollment in the second term. In Louisiana, there was an increase of 1.2 credits attempted in the second term, and a 15.3 percentage point increase in full-time enrollment. Similarly, in Ohio, program participants showed an increase of 0.6 credits attempted in the second term, and a 6.3 percentage point increase in full-time enrollment. In New York, while there was no increase on credits attempted in the second term, the program did have a 7.4 percentage point increase in full-time enrollment. Lastly, in New Mexico, students in the program attempted almost one full credit more than control group members in the second term. There was no increase in full-time enrollment (12 credits per term) in New Mexico, but the scholarship requires that students take 15 credits in their second term — which is what they consistently need to complete in order to graduate on time in four years. As a result, the program in New Mexico had a 25.6 percentage point impact on second-term enrollment.

- **Increase in students’ abilities to meet end-of-term benchmarks during program terms (see Figure 2).** In Louisiana, students had to earn at least six credits with a GPA of 2.0 or higher in order to get the end-of-term award. There was a 12.1 percentage point increase in the proportion of students earning a GPA of 2.0 or higher in the first semester of the program, and a 20.8 percentage point increase in the second semester of the program.

Students in Ohio had to earn at least 12 or more credits with a “C” or better in each for the full-time award. While detailed grade data are not available, using a proxy measure of earning 12 or more credits, there was a 7 percentage point increase in the first term of the program and a 12.7 percentage point increase in the second term of the program.

In New Mexico, students had to earn 12 or more credits (in the first term) and 15 or more credits (in subsequent terms), with a GPA of 2.0 or higher. While there was no impact on meeting the benchmark for the first term, there was a 16.4 percentage point increase in the proportion of

In all of the sites, as a result of the scholarships there were increases in the second term in credits attempted and/or full-time enrollment.
students earning the end-of-term benchmark for the second term of the program (more than a 50 percent increase). These impacts are striking, as the outcome is the academic benchmark, specific to the program in each state, that the scholarship was meant to influence.

- **Varied effects on term-to-term persistence.** While the Louisiana program saw sizeable impacts on rates of registration in virtually every term after random assignment, the early findings in Ohio, New York, and New Mexico have not found similar effects. In part, this is owing to high rates of persistence for control group students in the newer sites, providing a bar that is difficult to surpass. In addition, while the Louisiana program took place during an economic boom (2004 to 2005), the PBS programs began during a period of economic downturn (2008 to 2010). Ohio, New York, and New Mexico also have more generous financial aid options for the average low-income student than did Louisiana at the time of the Opening Doors study, meaning that control group students in those states were more likely to have other forms of aid. Additionally, it may be that the target group in Louisiana was particularly well-suited to the intervention. Even though the study has not yet found effects on persistence in the PBS Demonstration sites, there continue to be impacts on other academic outcomes.

- **Debt reduction.** The studies of both the Ohio and New Mexico programs found evidence that students’ debt was reduced as a result of the scholarships. Loans made up a smaller proportion of total financial aid for program group students in Ohio and New Mexico than for control group students.

These mostly short-term results suggest that performance-based scholarships can move the dial on some important markers of academic success. If the programs can show lasting effects after the scholarships are no longer available — and impacts on persistence emerge in later terms — these scholarships could lead to higher graduation rates and translate into higher earnings. MDRC will follow these longer-range outcomes closely in Ohio, New York, and New Mexico in the coming years. In addition, forthcoming results from three more states in the PBS Demonstration — California, Arizona, and Florida — will add to the body of knowledge on the effectiveness of these scholarships on improving academic success for low-income students.

**POTENTIAL IMPLICATIONS**

Performance-based scholarships are paid in addition to Pell Grants and other state and local financial aid for students, and thus their results can speak only to the impact of their use on top of the existing aid structure. However, at a time when policymakers are looking for ways to make financial aid more effective, there are some notable differences in the delivery of performance-based scholarships that could be relevant to current and future aid and scholarship programs:

- Performance-based scholarships are paid directly to students, potentially making them more meaningful to students than Pell Grants, for example, which are often
paid directly to the institution that students are attending.

- Performance-based scholarships have an added component of frequent communication with students, even in the versions of the demonstration that do not have an advising or student services component. A coordinator at each site is responsible for following up with students and serving as a central point of contact in case of questions. In this way, an aspect of student support is built into financial aid.

- Performance-based scholarships are generally paid in increments over the semester, when possible. This means that students get their aid over the entire semester, rather than in a large lump sum, as most grants and scholarships award aid. There are potential benefits to this method, as students may be encouraged to consistently work toward an end goal while receiving modest benefits along the way. In addition, students may be able to make better financial decisions throughout the term with this type of disbursement schedule.

Importantly, the modifications discussed above can be made with very little added cost, if any. Additionally, states and local governments may want to consider performance-based scholarships as a supplement to the current financial aid offered to low-income students.

WHAT'S NEXT?
The research team will be releasing periodic findings until the project ends in December 2014. These findings will include a full implementation study, a qualitative study, a more detailed impact study, and a cost study.
NOTES
1 Snyder, Dillow, and Hoffman (2008).
4 St. John, Musoba, Simmons, and Chung (2002); Kane (2004); Dynarski (2000, 2003); Cornwell, Mustard, and Sridhar (2006).
6 Goldrick-Rab, Harris, Benson, and Kelchen (2011) have experimental evidence of providing additional aid without any prior academic criteria or academic benchmarks. They find that recipients of the need-based grant were 28 percent more likely than other Pell Grant recipients to have earned at least 60 college credits over a two-year period.
7 Richburg-Hayes et al. (2009a); Brock and Richburg-Hayes (2006); Barrow, Richburg-Hayes, Rouse, and Brock (2009).
8 See Richburg-Hayes et al. (2009b) for an overview of the programs in each state.
9 Financial aid regulations prohibit certain students from receiving financial aid in excess of their need. In these instances, federal work-study or loans may be displaced for the performance-based scholarship.
10 Richburg-Hayes, Sommo, and Welbeck (2011); Miller, Binder, Harris, and Krause (2011); Cha and Patel (2010); Richburg-Hayes et al. (2009a).
11 Using a two-tailed t-test applied to differences between research groups, all p-values are less than or equal to 0.10.

REFERENCES
Cha, Paulette, and Reshma Patel. 2010. Rewarding Progress, Reducing Debt: Early Results from the Performance-Based Scholarship Demonstration in Ohio. New York: MDRC.
Miller, Cynthia, Melissa Binder, Vanessa Harris, and Kate Krause. 2011. Staying on Track: Early Findings from a Performance-Based Scholarship Program at the University of New Mexico. New York: MDRC.


**Acknowledgments**

This policy brief would not have been possible without the hard work of our many partnering organizations, participating colleges, and consortium of funders. The authors additionally thank Gordon Berlin, Robert Ivry, Thomas Brock, John Hutchins, and Margaret Bald for their helpful comments on this brief. Lastly, the authors would like to thank the thousands of students who participated in the study of Performance-Based Scholarships. We hope that the findings from this study can be used to improve college programs and services for them and others in the future.

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 Annie E. Casey Foundation, The George Gund Foundation, Sandler Foundation, and The Starr Foundation.


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

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Performance-Based Scholarships
Emerging Findings from a National Demonstration
By Reshma Patel and Lashawn Richburg-Hayes

Low-income students are at particular risk of not persisting to earn a certificate or degree, often because of competing priorities, financial pressures, and inadequate preparation for college. One form of financial assistance designed explicitly to reward students’ academic success is a performance-based scholarship, paid contingent on attaining academic benchmarks. MDRC’s 2009 Opening Doors study of performance-based scholarships in Louisiana showed a positive effect on students’ credit accumulation, grades, and persistence in college. In 2008, MDRC launched the Performance-Based Scholarship Demonstration, a study in six states that is testing whether different configurations of these scholarships in different locations and among different types of students would be equally effective in improving their outcomes. This brief summarizes findings in Louisiana, Ohio, New York, and New Mexico, which show modest but positive effects on important markers of academic progress.