

# Improving individual success for community-college students

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Community colleges are “the Ellis Island of American higher education,” according to the January 2008 report of the National Commission on Community Colleges.<sup>1</sup> They provide a pathway into the middle class for many low-income individuals, including people of color, immigrants, full- and part-time workers, and students who are the first in their families to attend college. However, the increased access to post-secondary education that community colleges offer has not always translated into individual success for students. As many as 60 percent of incoming students at community colleges require at least one developmental (or remedial) course, and many drop out before receiving a credential, often because they never progress beyond developmental classes. Promising evidence from one program in the Opening Doors demonstration described in this article suggests that a one-

semester “learning community” intervention can provide an early boost to freshman, helping students move more quickly through developmental requirements and earn more credits in their first semester.

## Why focus on community colleges?

Community colleges make higher education affordable and accessible to virtually anyone seeking the opportunity. Today, about 1,200 community colleges serve nearly 12 million students. Almost half of all college students nationwide attend a community college.<sup>2</sup> Compared with four-year institutions, community colleges enroll more students of color and more low-income students. They are also more likely to enroll working adults and parents.<sup>3</sup>

Community colleges prepare students for transfer to four-year colleges and universities, and they provide training in a wide variety of occupations. As shown in Figure 1, recent data from the U.S. Census Bureau indi-

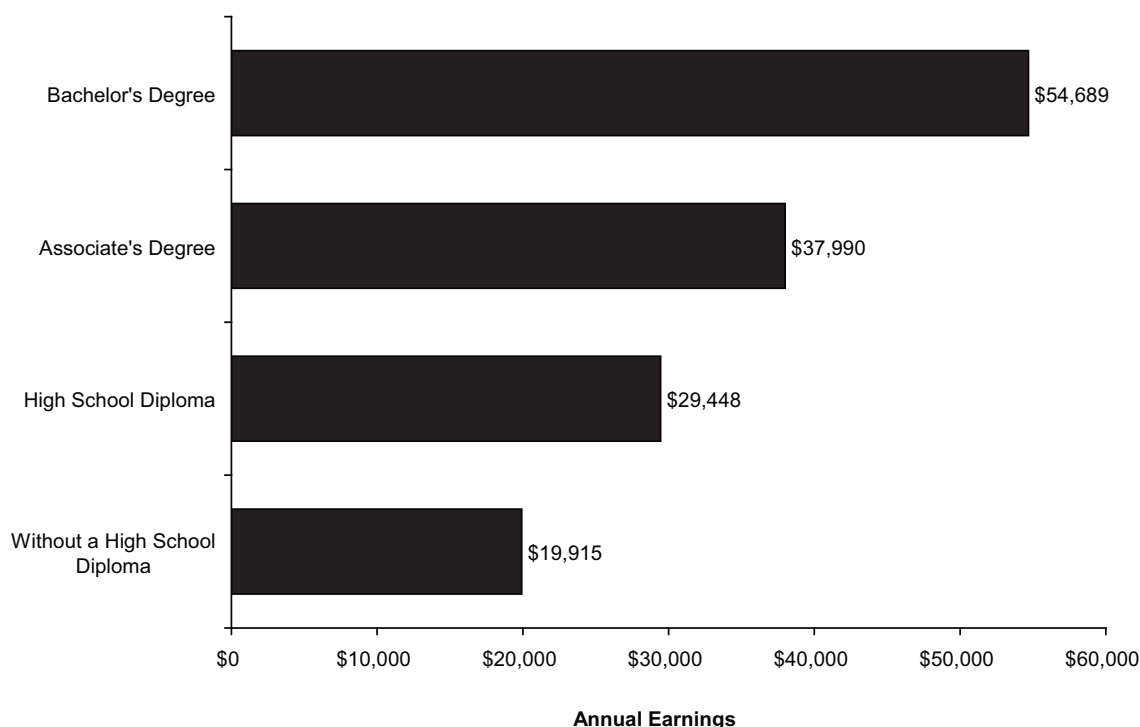


Figure 1. Average annual earnings, by educational attainment: Adults, nationwide, 2005.

Source: U.S. Census Bureau, *Educational Attainment in the United States: 2006*, “Table 9: Earnings in 2005 by Educational Attainment of the Population 18 Years and Over, by Age, Sex, Race Alone, and Hispanic Origin: 2006.”

cate that in 2005, an adult with an associate's degree earned an average annual income that was almost one-third higher than that of an adult with a high school diploma. Given the widening earnings gap between individuals with a postsecondary credential and those with a high school diploma, community colleges represent a potential pathway out of poverty and into the middle class.

Unfortunately, although many people attend community colleges, only a minority of students end up receiving a degree. The U.S. Department of Education reported that only about one-third of students who entered community college intending to earn a higher-education degree accomplish this goal within a six-year period.<sup>4</sup> Completion rates are particularly low for students who are academically under-prepared and who must begin college with developmental-level courses. The approach described here reflects the search for effective strategies to help community-college students stay in school and succeed.

## Opening Doors

The Opening Doors demonstration began in 2003 and includes four programs at six community colleges. This article provides a brief summary of a recent report on the effects of one community college's Opening Doors program on students up to two years after they entered the study.<sup>5</sup> A review of prior research and focus groups with past, current, and potential community-college students revealed some key factors that hinder students' progress.<sup>6</sup> These include: underpreparation for college-level work; the challenges of juggling school, work, and family; and institutional barriers such as inadequate support services and insufficient financial aid. Opening Doors is testing the following three promising strategies that colleges could adopt to address these factors:

- (1) *Curricular and instruction innovations*, including learning communities in which a group of peers take blocks of classes together; customized instructional support; academic instruction for students on academic probation; and enhanced orientation courses to help students navigate the college experience.
- (2) *Enhanced student services*, including stronger, more personalized academic advisement; career counseling; and tutoring.
- (3) *Supplementary financial aid*, such as special scholarships or money directed to specific education-related costs, such as vouchers for textbooks.

## Learning communities

Learning communities are a way of linking courses so that students have opportunities for deeper understanding and integration of the material they are studying, as

well as more interaction with teachers and other students. The four most common models of learning communities are paired or clustered courses, cohorts in large classes, team-taught programs, and residence-based programs. The first of these models was used for the program described here. Two or more individually taught courses are linked, with between 20 and 30 students taking the courses together as a cohort. The classes are block-scheduled, so that they meet one after the other. By 2002, the National Survey of First-Year Academic Practices found that over 60 percent of responding colleges enrolled at least some cohorts of students into two or more linked courses. However, these programs generally involved only a small proportion of students; fewer than 20 percent of these colleges enrolled more than 10 percent of freshmen in such programs.<sup>7</sup>

Many community colleges adopt learning communities with the goal of improving the retention, persistence, and success of their most vulnerable students. Prior research on learning communities has suggested that they can increase students' integration and sense of belonging in the college community and their overall satisfaction with their college experience.<sup>8</sup> However, few studies have measured the effect of learning communities on key student outcomes such as persistence, course completion, and degree attainment, and none of the large-scale studies have used a random assignment research design.

## The program at Kingsborough Community College

Kingsborough Community College in Brooklyn, New York, targeted its Opening Doors Learning Communities program to first-time incoming freshmen, ages 17 to 34, who planned to attend full-time during the day.<sup>9</sup> Administrators were particularly interested in targeting liberal arts majors, as they believed that many students in that group did not have clear academic or career goals and thus might benefit from a model that provided enhanced structure and support. They also made an effort to target students who missed the application deadline for the City University of New York (CUNY) system, and thus applied directly to Kingsborough often just weeks or days before the start of classes. These students tended to have poor outcomes, suggesting that they might benefit from the program.

### Program services

The program placed students in groups of up to 25 that took three classes together during their first semester. The courses included an English course, usually at the developmental level; an academic course required for the student's major; and a one-credit freshman orientation course. The program also offered additional components designed to address students' barriers to retention and academic success, including:

- *Enhanced counseling and support provided by the orientation course instructor.* The counselor, usually called a “case manager,” worked proactively to identify and resolve students’ barriers to good attendance and performance. Ideally, the case manager met regularly with the other two learning community instructors in order to create an “early-warning” system to identify students needing assistance. Each case manager was usually responsible for three or four learning communities, or 75 to 100 students.
- *Enhanced tutoring.* While tutors are generally assigned to developmental English courses at Kingsborough, and may even attend classes, other tutoring is provided at a central lab. In the Opening Doors program, a tutor was assigned to each learning community and attended the English course, and often the subject-matter course as well. The intention was to insure that tutors were familiar with both the material being covered and the individual students, in order to position them to both help with the work in a given course, and to help students draw connections across the linked courses.
- *Textbook vouchers.* College textbooks are quite expensive, and studies have shown that many community-college students do not purchase their own books, but rather try to share or borrow books, or simply get by without them.<sup>10</sup> Opening Door students attending the initial 12-week fall or spring session received a \$150 textbook voucher redeemable at the campus bookstore. Those who returned for a six-week winter or summer module could receive a second voucher worth up to \$75.

### Linking courses

The linked-course structure was the heart of the Opening Doors Learning Communities program. The structure was designed to achieve many goals: to help students build close, supportive relationships with their peers to ease the transition into college; to enhance learning by emphasizing the substantive linkages across different disciplines; and to facilitate closer connections among students, faculty, and case managers. In some learning community programs, courses are fully integrated under a single theme. At the other extreme, courses may be block-scheduled, with little integration. The Kingsborough program fell between these approaches, with the two linked courses remaining separate and distinct, but being coordinated to varying degrees. Surveyed faculty participating in the program all reported that they gave at least some joint assignments with their partner, and most reported that they developed a grading scheme together. Several English instructors reported that they assigned novels or other readings that related to the subject matter of the content course; several teams assigned some of the same texts for both courses. Interviewed students appeared to both be aware of and appreciate the links between their English and content courses. One student noted: “It doesn’t feel like you have different classes. It’s like it’s all

one class but different subjects. You can study easier. Use what you learned here [points to another place] here. It’s like a web, it’s all connected.”

### Evaluating program effects

In order to determine program effects, students were randomly assigned to either receive or not receive the Opening Doors program treatment. This assignment occurred just before students registered for classes. Random assignment ensures that the motivation levels and personal characteristics of students in the two groups were similar when the program began, so that any subsequent difference in outcomes can be attributed to the program. The study estimates the value added of Opening Doors, above and beyond what students normally receive. Kingsborough offers a rich array of academic programs and services, so the bar is set relatively high for the program to surpass. Also, the study examines the effects of the entire package of Opening Doors services, not the individual effects of each component.

An implementation study found that, despite a compressed planning period and the program’s large scale, all of the key features of Opening Doors were put into practice. The program received strong, consistent support from the highest levels of the college administration, and many faculty, students, and administrators expressed positive views about the program. All of the learning communities had the same basic structure, but they varied in their content, class size, and in the degree to which faculty worked together and integrated their courses. Thus, while this study is a strong test of the structural features of a learning community, and Kingsborough’s program appears to be at least as strong as, if not stronger than, the “typical” community college learning communities program, the study may not fully test the effects of tightly integrating course curricula.

### Characteristics of the research sample

Table 1 shows some characteristics of the sample members based on a questionnaire completed just prior to random assignment. The research sample, like the population of Brooklyn, is racially and ethnically diverse. Reflecting the makeup of the college’s entering full-time freshmen, the sample members were quite young when they entered the study. Very few of the Kingsborough sample members were married or had children (not shown). Most of the sample members had received their high school diploma or General Education Development (GED) certificate during the past year. Most reported that their main reason for enrolling in college was either to obtain an associate’s degree or to transfer to a four-year institution. Almost half of the sample members reported speaking a language other than English at home—the same proportion as in Brooklyn overall. Almost three-fourths of the sample members reported that either they or at least one of their parents was born outside the United States.

**Table 1**  
Selected Characteristics of Sample Members at Baseline

Characteristic	Percentage of Full Sample
Gender	
Male	45%
Female	55
Age	
17–18 years old	45
19–20 years old	34
21–34 years old	21
Race/ethnicity	
Hispanic/Latino	20
Black, non-Hispanic	38
White, non-Hispanic	27
Asian or Pacific Islander	9
Other	6
Diplomas/degrees earned	
High school diploma	71
General Educational Development (GED) certificate	29
Occupational/technical certificate	2
Date of high school graduation/GED receipt	
During the past year	70
Between 1 and 5 years ago	23
More than 5 years ago	7
Main reason for enrolling in college	
To complete a certificate program	3
To obtain an associate’s degree	30
To transfer to a 4-year college/university	50
To obtain/update job skills	11
Other	8
First person in family to attend college	33
Language other than English spoken regularly in home	47
Respondent or respondent’s parent(s) born outside U.S.	74

Source: MDRC calculations using baseline information form data.

Students at Kingsborough are required to take CUNY skills-assessment tests prior to beginning classes. Three-fourths of the study’s sample members passed the reading test, but only 29 percent passed the writing test, and 29 percent passed both tests. Only those who passed both assessment tests could avoid developmental-level English. Of the 40 learning communities that operated during the study period, 31 included a developmental English course, and the other 9 included a credit-bearing freshman English course.

## Educational outcomes

Table 2 shows some of the ways that the learning communities program directly affected students during their first semester.<sup>11</sup> Many higher education experts believe that students’ academic and social experiences during that first semester play a substantial role in their future success—that students who develop strong initial connections with the material they study, with other students, and with faculty are more likely to persist in col-

**Table 2**  
Classroom and College Experiences of Sample Members

Outcome	Program Group	Control Group	Difference
Integration and sense of belonging at school			
Low	11%	17%	-6%***
High	16	13	3
Participation and engagement			
Low	15	22	-7***
High	18	12	6**
Using knowledge (critical thinking curriculum)			
Low	12	18	-6***
High	24	22	2
Acquired academic and work skills			
Low	13	18	-6**
High	21	16	5**
Rated college experience good or excellent	83	76	7***

Source: MDRC calculations from the Opening Doors 12-Month Survey.

Notes: A two-tailed t-test was applied to difference between research groups. Statistical significance levels are indicated as \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Rounding may cause slight discrepancies in differences.

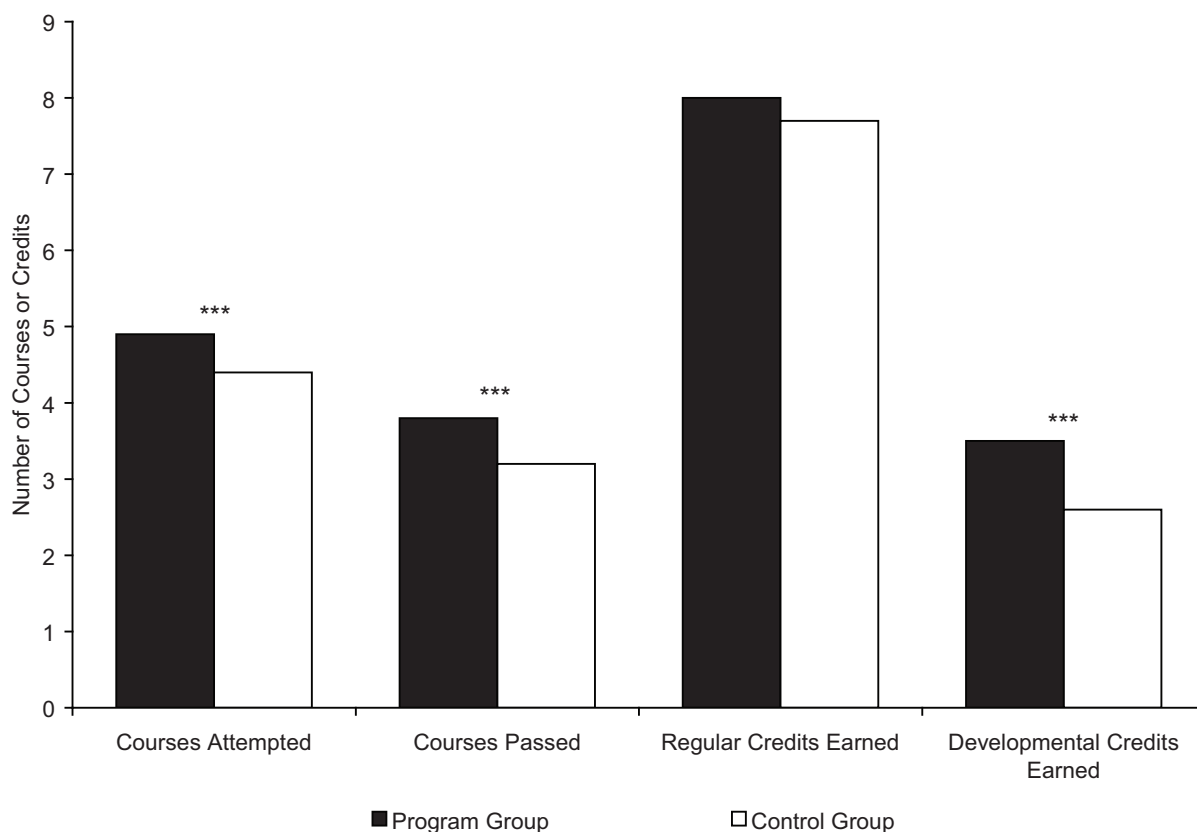
lege than students who do not. Also, those who make better progress in meeting their developmental requirements may be more motivated to stay in school.

## The program improved students’ experiences in college

When surveyed approximately a year after entering the study, students in the program group reported that they were more engaged with their coursework, instructors, and fellow students and had a stronger sense of belonging than did control group students. They were more likely to say that their courses required critical thinking and that they had acquired valuable academic and work skills. Finally, they were more likely to rate their college experience as “good” or “excellent.” These findings strongly suggest that the learning community program provided a markedly different experience for students.

## The program improved several educational outcomes

Figure 2 illustrates some key outcomes during the program semester, the first semester that each student was in the study. Students in the program group attempted and passed about half a course more at Kingsborough during their first semester than control group students did, though this positive effect diminished in later semesters. They also earned almost one more “developmental credit.” Developmental courses do not earn college credit, but they do count in determining whether a student is attending school full time. Program group mem-



**Figure 2. Educational outcomes during the program semester.**

**Source:** MDRC calculations from Kingsborough Community College transcript data.

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

bers were also more likely to pass all their courses during the first semester (not shown).

### Students moved more quickly through developmental English requirements

A goal of the program was to help students more quickly complete developmental requirements and progress to college-level English. To enroll in the college-level course at Kingsborough, students who were placed in developmental courses must successfully complete them and then retake and pass reading and writing skills assessment tests. Figure 3 shows the proportion of the two research groups who took the tests during their first three semesters in the study and passed the tests by the end of that period (including students who passed the tests before starting their freshman year). The program increased the proportion of students who attempted and passed the tests. Although not illustrated in the figure, most of these impacts are driven by effects in the first (program) semester. It is notable, however, that the control group members had not “caught up” in their test-taking and passing by the end of the follow-up period.

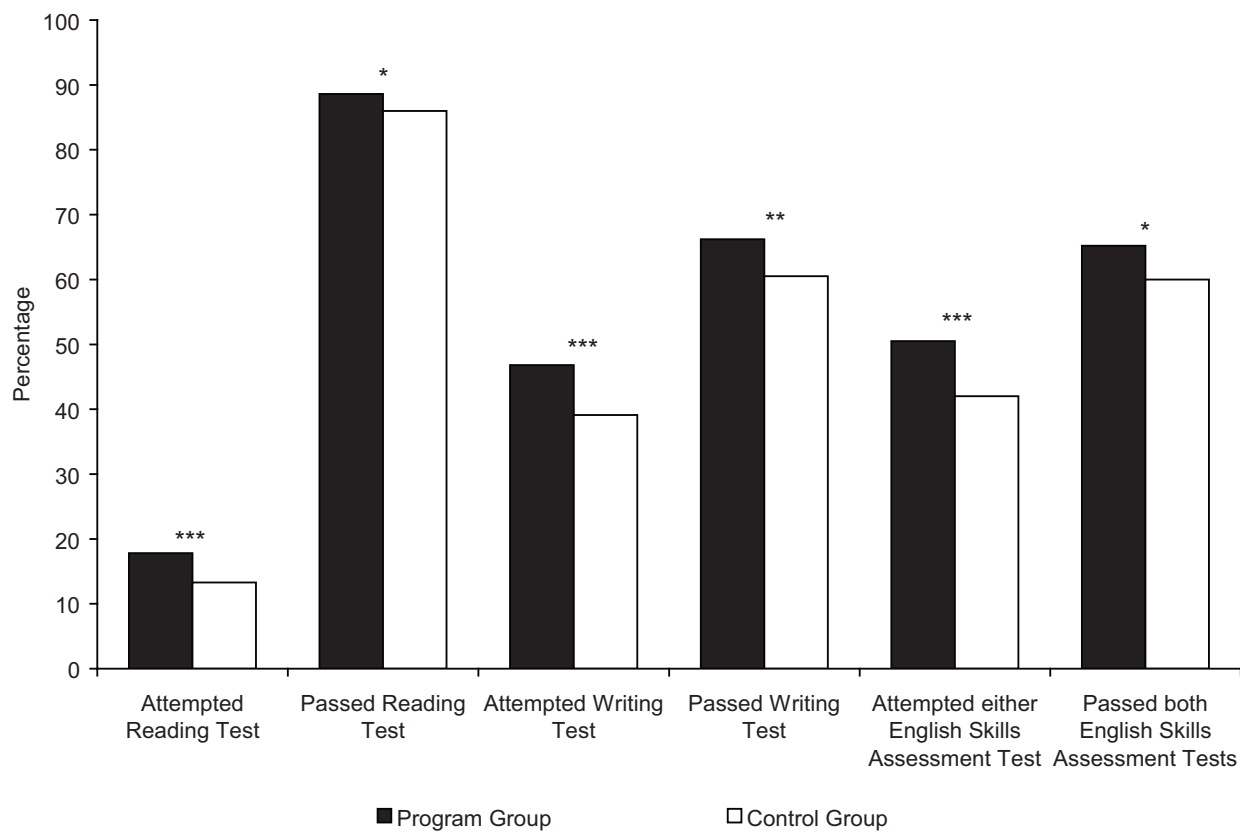
We also examined progression through English courses for different subgroups of the research sample. Among

the subset of the sample who failed both English skills assessment tests before starting their freshman year, program group members were more likely than their control group counterparts to enroll in developmental English during their first two semesters. Program group members who failed one of the tests before entering college were also more likely to enroll in developmental English during their first semester and were more likely to enroll in and pass college-level English during their first two semesters. The program did not affect progression through English courses among students who had passed both English assessment tests before starting their freshman year.

### Evidence is mixed about whether the program increases student persistence in college

A central goal of all Opening Doors programs is to increase persistence in college. Initially, Kingsborough’s program did not change the rate at which students re-enrolled in subsequent semesters. In the last semester of the two-year follow-up period, however, a difference emerged: 53 percent of the program group registered for at least one course that semester at Kingsborough, compared with 48 percent of the control group. Data from the National Student Clearinghouse, which provides enroll-





**Figure 3. Effects on developmental requirements.**

**Source:** MDRC calculations from City University of New York skills assessment test data.

**Notes:** Outcomes include data from the program semester through the second postprogram semester. A two-tailed t-test was applied to difference between research groups. Statistical significance levels are indicated as \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

ment information at most colleges in the nation, shows a similar effect on persistence emerging in the third post-program semester.

### What are the implications of the results?

Opening Doors Learning Communities at Kingsborough substantially improved students' experiences in college and some key educational outcomes while they were in the program, but, for the most part, the effects did not persist. We plan to track sample members' outcomes for at least three years after their random assignment to the study to determine the longer-term effects on their academic performance, persistence, and graduation as well as on their later employment rates and earnings. Thus, the results in this article are not the last word on Kingsborough's program. The findings do indicate, however, that the learning community model shows promise as a strategy to help students move through developmental education.

Kingsborough's program lasted one semester. The college's administrators decided that there was no practical way to maintain the linked-course structure after the

first semester, since students needed and wanted to take a variety of different courses in subsequent semesters. Also, the program was designed on the assumption that students' early experiences at college influence their later success, and administrators believed that students should transition into the regular college community as quickly as possible.

The question of how long a learning community program should continue is complicated. Still, the results from the Kingsborough study suggest that participating in a learning community program for more than one semester may yield more substantial effects, since the positive effects on academic outcomes were the largest during the first semester. If the options of a multiple-semester learning community or participating in a different learning community after the first semester are not possible, colleges could offer other kinds of enhanced services in later semesters, such as intensive counseling or more financial support. It is worth noting that, in some of the other sites in the Opening Doors demonstration, the early results follow a similar pattern: effects are largest when students receive enhanced services, and they diminish or even disappear after the services end.

The study at Kingsborough uses a specific program model, targeted to a certain group of students, in a particular setting. Other learning community models, target groups, and institutional settings may well lead to different results. Another rigorous study, the Learning Communities demonstration, was launched in 2006 and is using random assignment to test the effects of learning communities in six colleges.<sup>12</sup> ■

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<sup>1</sup>College Board, *Winning The Skills Race and Strengthening America's Middle Class: An Action Agenda for Community Colleges, Report of the National Commission on Community Colleges*, College Board, Center for Innovative Thought, New York, NY, 2008.

<sup>2</sup>American Association of Community Colleges, "CC STATS," accessed May 6, 2008, at <http://www2.aacc.nche.edu/research/index.htm>.

<sup>3</sup>L. Horn and S. Nevill, "Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003–2004. With a Special Analysis of Community College Students," U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2006.

<sup>4</sup>U.S. Department of Education, National Center for Education Statistics, "Descriptive Summary of 1995–96 Beginning Postsecondary Students: Six Years Later," 2002.

<sup>5</sup>S. Scrivener, D. Bloom, A. LeBlanc, C. Paxson, C. E. Rouse, and C. Sommo with J. Au, J. J. Teres, and S. Yeh, *A Good Start: Two-Year Effects of a Freshmen Learning Community Program at Kingsborough Community College*, MDRC, New York, NY, 2008. The full report can be found at [http://www.mdrc.org/project\\_31\\_2.html](http://www.mdrc.org/project_31_2.html). The evaluation of the Opening Doors programs is being conducted by MDRC, a group of scholars who are part of the MacArthur Foundation-funded Research Network on Transitions to Adulthood, and an expert on the relationship between education and health to Princeton University.

<sup>6</sup>For more information on the focus groups, see L. Matus-Grossman and S. Gooden with M. Wavelet, M. Diaz, and R. Seupersad, *Opening Doors: Students' Perspectives on Juggling Work, Family, and College*, MDRC, New York, NY, 2002.

<sup>7</sup>B. O. Barefoot, *Second National Survey of First-Year Academic Practices*, Policy Center on the First Year of College, Brevard, NC, 2002.

<sup>8</sup>K. Taylor with W. Moore, J. MacGregor, and J. Lindblad, *Learning Community Research and Assessment: What We Know Now*, National Learning Communities Project *Monograph Series*, Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education, in cooperation with the American Association for Higher Education, Olympia, WA, 2003.

<sup>9</sup>ESL students were excluded from the study, as they already had a learning communities program. Students in the four "career majors" for whom a separate learning community operated were also excluded from the first year of the study.

<sup>10</sup>"Penny Pinching 101: Hard Up for Cash, Students Skimp on Textbooks," *Community College Week* Volume 15, No. 14, February 17, 2003.

<sup>11</sup>This article presents effects for the full research sample at Kingsborough (1, 534 students) for up to two years after students entered the study.

<sup>12</sup>The demonstration is part of the National Center for Postsecondary Research, funded by the U.S. Department of Education.

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