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An Impact Study of Career-Focused Learning Communities at Kingsborough Community College

Mary G. Visher
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JULY 2011

THE LEARNING COMMUNITIES DEMONSTRATION

National Center for Postsecondary Research
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Overview

The low completion rates of students in community colleges have been well documented. Among students who enroll in community colleges hoping to earn a credential or transfer to a four-year institution, only about half achieve this goal within six years. Many factors contribute to these low success rates, including lack of financial support, lack of motivation and direction, competing demands from family and jobs, and inadequate college-readiness skills. In an effort to address some of those barriers and to increase the number of students who achieve their education and career goals, community colleges are turning increasingly to learning communities — in which cohorts of students are coenrolled in two or sometimes three courses that are linked by a common theme and are taught by a team of instructors who collaborate with each other around the syllabi and assignments.

Kingsborough Community College in Brooklyn, New York, is a leader in the learning community movement. The college, which has run learning communities for many years and has a long history of implementing innovative programs for its students, is one of six colleges participating in the National Center for Postsecondary Research's Learning Communities Demonstration, in which random assignment evaluations are being used to determine the impacts of learning communities on students' academic achievement. This report presents findings from an evaluation of Kingsborough's unique Career-Focused Learning Communities program, the latest iteration in a series of learning community models designed and implemented by the college. It consisted of two courses required for a specific major and a third course called the "integrative seminar" that was designed to reinforce the learning in the two other courses and to expose students to information about careers in their selected major. The key findings presented in this report are:

- Kingsborough's learning communities program model was sophisticated and ambitious relative to the typical model in its offer of three rather than two linked courses and its focus on integrated curricula.
- Start-up problems during implementation kept the program from achieving a "steady state" during the demonstration.
- For the sample as a whole, the program did not have meaningful impacts on the educational outcomes that were measured during the semesters in which students enrolled in a learning community or on outcomes measured in the following semester.
- For students who had recently transferred from another college, the program had a modest but positive impact on credits earned during the semester in which the program ran.

Findings from the Learning Communities Demonstration reports that have been released to date generally show that learning community impacts, when they occur, tend to be modest and concentrated in the semester in which the learning communities are run. However, a fuller understanding will be gained as findings are released from the remaining two colleges in the demonstration. In addition, a final report, including further follow-up findings, will be released in 2012.

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Preface

With their low costs and nonselective admissions policies, community colleges are often the best chance that disadvantaged Americans have to obtain a postsecondary credential. Yet for many of these students, the odds of succeeding are dismally low: only 51 percent of incoming students earn a credential within six years. One popular strategy used by colleges that are intent on increasing completion rates is the learning community, in which small groups of students take thematically linked classes together, helping them to form relationships with each other and with their instructors, to strengthen their ties to the college community, and to engage more deeply with the curriculum. As a result, proponents say, students will improve their academic persistence and achievement.

Kingsborough Community College is a national leader in the learning communities movement. After successfully operating learning communities for first-year developmental education students — and encouraged by the positive, if modest, impacts of its program in 2005 — the college decided to create a new kind of learning communities program. Part of the national Learning Communities Demonstration, in which six colleges participated, Kingsborough's Career-Focused Learning Communities program was ambitious and unique in its focus on second semester students, its linking of three rather than the usual two courses, and its emphasis on helping students make more informed decisions about their majors and careers. MDRC is leading the evaluation of the Learning Communities Demonstration as a partner in the National Center for Postsecondary Research, which is funded by a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education. The other partners are the Community College Research Center at Columbia University's Teachers College, the Curry School of Education at the University of Virginia, and faculty at Harvard University.

As observed in this report, Kingsborough's Career-Focused Learning Communities program — while it certainly broke new ground in terms of offering an innovative and unusual learning communities model — did not have significant impacts on students' credit accumulation or persistence in school. It is possible that Kingsborough's highly student-centered learning environment, which includes an abundance of student support services and generous professional development opportunities, makes it difficult for a new program to improve students' academic outcomes above and beyond what the college's extensive supports already produce. Whatever the explanation, these latest results, along with similar findings now reported for all but two of the colleges in the demonstration, are helping to answer critical questions about both the opportunities and limitations of this popular strategy. And there is more to come. Over the next two years, with the release of reports from the two remaining colleges in the demonstration and a final report on the findings from all six sites and an extended follow-up period, a more complete picture will emerge.

Gordon L. Berlin
President

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We would like to first express our deepest gratitude to the administrators and faculty of Kingsborough Community College. Kingsborough is an extraordinary institution — dedicated to student-centered reform and committed to evaluation as a guiding tool for creating programs that best serve its students. Time and time again, Kingsborough's leaders have agreed to let their institution serve as a laboratory for research, courageously subjecting their innovative programs, such as learning communities, to rigorous evaluation. In particular, we want to thank President Regina Peruggi and Provost Stuart Suss, who have both shown unflagging support for learning communities and for research. Our friend and partner, Rachel Singer, Director of Academic Affairs, deserves a standing ovation for her tireless and inspiring leadership at the college and in the nation for her work with learning community programs and other reforms. Janine Graziano-King has done much to encourage and support faculty who want to improve their teaching, both in and outside of learning communities — and was an invaluable resource to the research team.

The Learning Communities Demonstration is part of the National Center for Postsecondary Research (NCPR), which is supported by a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education. The project received additional support from funders listed at the front of this report, but we would like to single out the Robin Hood Foundation for its steady and much-needed support of Kingsborough's learning communities. We also thank Thomas Bailey of the Community College Research Center and Principal Investigator for NCPR, who provided valuable comments on earlier drafts of this report.

Finally, we want to acknowledge the varied and important contributions of the project team at MDRC who made this report possible. Thomas Brock and Rob Ivry led the early design and management of the overall Learning Communities project as well as provided astute comments on drafts of all the reports, including this one. We are grateful to Dan Bloom, Alice Tufel, and John Hutchins for their candid and insightful comments on drafts. Michael Weiss, Lashawn Richburg-Hayes, and Colleen Sommo provided invaluable technical advice on the statistical analyses. Herbert Collado worked with Kingsborough staff to support random assignment procedures, and, with help from Paulette Cha, conducted field research. Kate Gualtieri managed the budget for the demonstration and weighed in with useful feedback at almost every critical juncture. Donna Chan helped process, fact-check, and create tables presenting the student records data. Alice Tufel edited the report, and Stephanie Cowell and David Sobel prepared it for publication. Everything we do at MDRC is a team effort and this report exemplifies the very best of those efforts.

The Authors

Executive Summary

The low completion rates of students in community colleges have been well documented in recent years. Among students who enroll in community colleges hoping to earn a credential or transfer to a four-year institution, only about half achieve this goal within six years.[1] Many factors contribute to the low success rates of community college students,[2] including lack of financial support, lack of motivation, a sense of not belonging in the college environment, competing demands from family and jobs, and inadequate college-readiness skills. Community colleges are increasingly using learning communities to try to address some of those barriers and to increase the number of students who achieve their education and career goals.

A learning community is made up of a cohort of students who coenroll in two, or sometimes three, courses that are linked by a common theme and are taught by a team of instructors who collaborate with each other around the syllabi and assignments. One of the advantages of learning communities is that they give students a better chance of getting to know each other and learn together. Extra support in the form of tutoring or enhanced advising is often incorporated directly into the classroom experience. Learning communities in community colleges typically last one semester and are offered to incoming freshmen. The theory of change underlying the model stipulates that if students are more engaged in what they are learning and more connected with each other and with their instructors, they are more likely to master the course material, pass their courses, and persist from semester to semester.[3]

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[1] A. W. Radford, L. Berkner, S. C. Wheeless, and B. Shepherd, *Persistence and Attainment of 2003-04 Beginning Postsecondary Students: After 6 Years* (Washington, D.C.: National Center for Education Statistics, 2010).

[2] Clifford Adelman, *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972-2000* (Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, 2004); T. Bailey and M. Alfonso, *Paths to Persistence: An Analysis of Research on Program Effectiveness at Community Colleges* (Indianapolis, IN: Lumina Foundation for Education, 2005); Henry Levin and Juan Carlos Calcagno, "Remediation in the Community College," *Community College Review* 35 (2008): 181-207.

[3] Vincent Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," *Review of Education Research* 45 (1975): 89-125; Vincent Tinto, "Classrooms as Communities: Exploring the Educational Character of Student Persistence," *Journal of Higher Education* 69 (1997): 599-623; Cathy McHugh Engstrom and Vincent Tinto, "Learning Better Together: The Impact of Learning Communities on the Persistence of Low-Income Students," *Opportunity Matters* 1 (2008); Gillies Malnarich, with Pam Dusenberry, Ben Sloan, Jan Swinton, and Phyllis van Slyck, *The Pedagogy of Possibilities: Developmental Education, College-Level Studies, and Learning Communities,* National Learning Communities Project Monograph Series (Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education, in cooperation with the American Association for Higher Education, 2003); Mary G. Visher, Emily Schneider, Heather Wathington, and Herbert Collado, *Scaling Up Learning Communities: The Experience of Six Community Colleges* (New York: National Center for Postsecondary Research, 2010).

Kingsborough Community College in Brooklyn, New York, is a leader in the learning community movement. The college has run learning communities for many years, and more than half of its incoming freshmen were enrolled in one as of 2010. This report presents findings from an evaluation of Kingsborough's "Career-Focused Learning Communities" program, the latest iteration in a series of learning community models designed and implemented by the college. Unlike more typical programs, it targeted continuing rather than first-semester students and it consisted of three courses — two courses required for a specific major and a third course called the "integrative seminar," designed to reinforce the learning in the other two courses as well as expose students to information about careers in their selected major.

The Learning Communities Demonstration

Kingsborough's program was one of six programs that were evaluated in the Learning Communities Demonstration (described below) and the only one that was designed for students who had declared a major and that did not include a course in developmental math, English, or reading. (The other five programs in the Learning Communities Demonstration were at The Community College of Baltimore, Baltimore, Maryland; Hillsborough Community College, Tampa, Florida; Houston Community College, Houston, Texas; Merced College, Merced, California; and Queensborough Community College, Queens, New York.)

The Learning Communities Demonstration is a nationwide, random assignment evaluation funded in part by the National Center for Postsecondary Research (NCPR) through a grant (R305A060010) from the Institute of Education Sciences, U.S. Department of Education, and in part by grants from the Bill & Melinda Gates Foundation, the Ford Foundation, Lumina Foundation for Education, and the Robin Hood Foundation. MDRC — an NCPR partner along with the Community College Research Center, the Curry School of Education at the University of Virginia, and faculty at Harvard University — is the lead organization for the Learning Communities Demonstration.

Study intake for the demonstration began in fall 2007 and was completed for all six colleges two years later. At each college, about 1,000 students were recruited into the study, approximately 60 percent of whom were randomly assigned to the program group and 40 percent to a control group. Program group members were invited to enroll in a learning community; control group members were allowed to enroll in any class other than a learning community class. By comparing the different outcomes for program and control group students, the study was able to gauge the "impact" — or net value added — of the program on key student outcomes over two semesters. Differences in outcomes that are statistically significant — that is, unlikely to have arisen by chance — indicate that the program had an impact during the study period on the outcomes being measured. The learning communities programs in the demonstration lasted for one semester per cohort at each college, and transcript data were

collected on both the program and control groups for up to three semesters after random assignment. The evaluation looked at the percentage of students who passed the developmental courses in the learning communities, percentage of students who reenrolled in college the following semester, and credits accumulated. This report is the fourth in a series of six reports on findings from the Learning Communities Demonstration.

The Career-Focused Learning Communities Program at Kingsborough Community College

The career-focused learning community model at Kingsborough differed from the other models in the Learning Communities Demonstration in certain key ways. First, whereas the other programs targeted students in developmental education, who were generally in their first semester at college, the Kingsborough program enrolled students who had fulfilled all or most of their developmental education requirements, were in their second semester or beyond, and had declared a major. By the end of the demonstration, learning communities were offered in eight majors: allied health, accounting, business administration, criminal justice, early childhood education, liberal arts, mental health, and tourism and hospitality. Second, it was the most advanced of the six models tested, linking three courses rather than the customary two. The third course, the "integrative seminar," was designed to reinforce the interdisciplinary teaching in the other two courses and raise students' awareness of career options in their selected majors. Third, unlike the other colleges in the demonstration, Kingsborough placed a heavy emphasis on joint assignments (called "integrative assignments"), project-based learning, and engaging students in active, collaborative learning rather than passively listening to lectures. Instructor teams were expected to spend a significant amount of time planning and integrating their courses and were given the support to do so. Finally, an explicit goal of the program and one that was unique to Kingsborough's career-focused approach was to offer students opportunities to learn more about careers that were associated with their majors so that they could make more informed decisions about their education and career goals.

Eligibility for participation in the study of Kingsborough's career-focused learning communities was limited to continuing students who had earned six or more credits, had declared one of the eight majors noted above, and were able to take the learning communities courses at the scheduled times. A total of 917 students were enrolled in the study between May 2007 and September 2009. Cohorts of program group students participated in the single-semester program over the course of five semesters: fall 2007, spring 2008, fall 2008, spring 2009, and fall 2009.

Key Findings

- **Kingsborough's learning communities program was based on a sophisticated and ambitious model.** While Kingsborough built on its many years of experience running learning communities, the career-focused program was new to the college and more advanced than the programs in the other demonstration sites. Also unlike the other sites, heavy emphasis was placed on instruction that highlighted connections between the courses. Field trips and classroom visits by employers were planned to enhance career awareness.

- **The implementation experience was characterized by several start-up problems and, as a result, the program never achieved a "steady state" during the demonstration.** Many of the implementation challenges stemmed from problems with enrolling enough students in the study. For example, some of the learning communities did not fill up and had to be canceled or combined with others.

- **The learning communities program did not have meaningful impacts overall on educational outcomes during the semesters in which students enrolled in the learning community ("program semester").** For example, the difference between program group students and control group students was not statistically significant with respect to credit accumulation.

- **The learning communities program did not have meaningful impacts on students' outcomes following the program semester.** In the first semester following the end of the program ("postprogram semester"), 75.7 percent of program group students and 73.7 percent of control group students registered for at least one course. This 2 percentage point difference is not statistically significant.

- **Although the program did not have meaningful impacts on credit accumulation overall, it had a modest but positive impact on credits earned during the program semester for students who had recently transferred from another college and were therefore new to Kingsborough.** Transfer students who were assigned to participate in the career-focused learning communities were more likely to participate in the program than continuing students. They also earned an additional two credits more than transfer students in the control group. This finding is consistent with the theory of learning communities, which posits that students who are new to campus and are not connected with other students and instructors will benefit from the learning community experience.

Emerging Patterns and Lingering Questions

One possible interpretation of these results is that learning communities for second semester students are not effective. However, several circumstances are worth considering before drawing such a conclusion. First, the program at Kingsborough encountered several challenges during implementation, particularly around fully enrolling the learning communities. Second, Kingsborough offers a positive learning environment for all its students, whether or not they are in learning communities, including a rich array of support services and professional development for faculty. In a setting like that, it is hard for any intervention to add value and produce significantly better outcomes than "business as usual." Finally, the study was designed to measure outcomes such as persistence and credit accumulation, but it did not look at the program's potential impact on other outcomes that the college considers to be just as important, such as increased mastery of course material and higher-order cognitive skills.

With this report, the Learning Communities Demonstration as well as an evaluation of an earlier learning communities program at Kingsborough Community College have yielded five random assignment studies of learning community programs in community colleges.[4] Although results vary a bit from program to program, overall the findings show that when learning communities have impacts, they tend to be modest and concentrated in the semester in which the program group students are enrolled in the learning communities. However, the full story of the Learning Communities Demonstration remains to be told. Findings from the evaluations of learning community programs at Merced College and The Community College of Baltimore County, both of which targeted students in need of developmental English, are still forthcoming. Finally, NCPR has plans to follow up all the students in the demonstration for an additional semester; those results will be included in the final report for the demonstration in 2012.

[4]The earlier program at Kingsborough was part of the Opening Doors Demonstration, a multisite study that tested interventions at six community colleges designed to help low-income students stay in school and succeed. See Susan Scrivener, Dan Bloom, Allen LeBlanc, Christina Paxson, Cecilia Elena Rouse, and Colleen Sommo, *A Good Start: Two-Year Effects of a Freshmen Learning Community Program at Kingsborough Community College* (New York: MDRC, 2008).

Chapter 1

Introduction

In 2005, the leaders of Kingsborough Community College had reason to celebrate: early findings from an evaluation of their learning communities program showed positive results.[1] The findings demonstrated that students who were enrolled in the college's learning communities had better academic outcomes than students who were not enrolled in them. Encouraged by the findings, the college's leaders turned their attention to scaling up the program and offering it to a group of students for whom it had not yet been an option.

Like similar programs at other community colleges across the country, Kingsborough's learning communities comprise cohorts of students who typically coenroll in two or, less often, three "linked" courses and travel together from class to class. The courses are linked by a common theme and are taught by instructors who collaborate with each other on the syllabi and assignments. Proponents of learning communities expect that the experience of taking courses together in this way will lead to a greater sense of belonging to the college and engagement with coursework, which in turn will lead to improved academic outcomes.

Kingsborough's original learning communities, which were the focus of the 2005 evaluation, comprised two linked courses (one developmental-level course and one college-level course) and were aimed at incoming freshmen who had to take developmental education courses in English; the learning communities therefore included a course in developmental English. The new program, which is the subject of this report, would target students in their second semester of community college and would link three college-level courses. Kingsborough called its new program "Career-Focused Learning Communities" because its courses contained material that was associated with specific career paths. The program began in 2007, and many of the second-semester students whom it targeted had been in a learning community during their first semester at college.

This report presents the findings from a random assignment evaluation of Kingsborough's Career-Focused Learning Communities program. Random assignment creates a study sample comprising two groups — a program group and a control group — that are similar both in characteristics that can be measured, like age or academic attainment, and in those that cannot be reliably measured, like motivation. As discussed in more detail in the next chapter, random assignment ensures that any substantial differences in the outcomes of sample members who are assigned to the program and control groups are a result of the intervention being studied rather than pre-existing differences between those who experienced the program and those who did not.

[1] Bloom and Sommo (2005).

Background

The earlier learning communities program at Kingsborough that garnered such positive results in 2005 was part of MDRC's Opening Doors demonstration, a multisite study conducted at six community colleges that was designed to assess strategies to help low-income students stay in school and succeed.[2] That program, as mentioned above and unlike the one discussed in this report, targeted students in need of developmental English. Like the current study, a random assignment design was used to estimate the impacts of the program. The 2005 study findings showed that the one-semester program improved students' sense of engagement with school and increased their chances of passing courses and satisfying developmental English requirements. Those effects were most pronounced during the semester in which the students were enrolled in the learning communities but diminished over time.[3]

The results from the evaluation of the Kingsborough Opening Doors learning communities program paved the way for the Learning Communities Demonstration, a nationwide, large-scale random assignment evaluation of learning communities at six community colleges: The Community College of Baltimore County (Baltimore, Maryland), Hillsborough Community College (Tampa, Florida), Houston Community College (Houston, Texas), Kingsborough Community College (Brooklyn, New York), Merced College (Merced, California), and Queensborough Community College (Queens, New York).[4] Study intake for the demonstration began with three of the six colleges in fall 2007 and was completed for all six colleges two years later. At each college, about 1,000 students were recruited for the study and, of those, between 50 and 60 percent were randomly assigned to the program group and the remainder to the control group. Program group members were invited to enroll in a learning community for one semester; control group members were allowed to enroll in any class other than a learning community class. Transcript data were collected on both groups up to three semesters after random assignment. The study was designed to estimate impacts at each college on such academic outcomes as credits earned, developmental course completion, and persistence from semester to semester.

The six programs in the Learning Communities Demonstration were selected to represent the array of learning community models encountered during the reconnaissance phase of the study.[5] Table 1.1 provides an overview of the colleges and their programs. All of the

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[2]See Scrivener et al. (2008) for a description of Opening Doors and its findings.

[3]See Scrivener et al. (2008).

[4]The Learning Communities Demonstration is funded in part by the National Center for Postsecondary Research (NCPR), which was established by a grant (R305A060010) from the Institute of Education Sciences of the U.S. Department of Education. The Learning Communities Demonstration is also supported by the Bill & Melinda Gates Foundation, the Ford Foundation, Lumina Foundation for Education, and the Robin Hood Foundation. MDRC, an NCPR partner along with the Community College Research Center (CCRC) at Columbia University Teachers College, the Curry School of Education at the University of Virginia, and faculty at Harvard University, was the lead organization for the Learning Communities Demonstration.

[5]For other reports in the Learning Communities Demonstration, see Visher, Schneider, Wathington, and Collado (2010); Weiss, Visher, and Wathington (2010); Weissman et al. (2011).

The Learning Communities Demonstration

Table 1.1

Overview of the Learning Communities Demonstration, by College

KCC Career-Focused Learning Communities Report

Learning Community Program and College	Learning Community Program Model	Eligible Population
Developmental math		
Houston Community College (Houston, TX)	• Developmental math linked with a student success course • Student success course focuses on acclimation to college, study skills	• Assessed into lowest level of developmental math • First-time students at Houston
Queensborough Community College (Queens, NY)	• Developmental math linked with developmental or college-level English (fall 2007) or with a college-level course (spring 2008 and beyond)	• Assessed into either of two levels of developmental math • New students and students with less than a semester of credits
Developmental English or reading		
The Community College of Baltimore County (Baltimore, MD)	• Developmental English or reading linked with a college-level course (e.g., psychology, sociology, business) • Master Learner Component — a faculty member (sometimes the developmental English instructor) sits in on a college-level course and conducts a weekly, one-hour, noncredit seminar on learning-to-learn in the context of the college-level course	• Assessed into highest level of developmental English or reading
Hillsborough Community College (Tampa, FL)	• Developmental reading linked with a student success course • Student success course focuses on acclimation to college, study skills	• Assessed into either of two levels of developmental reading • First-time students
Merced College (Merced, CA)	• Developmental English linked with developmental reading or math, a college-level course, or a student success course • Several of the links have supplemental instructors — trained peer instructors who facilitate voluntary group study sessions	• Assessed into any of three levels of developmental English
Career-focused learning communities		
Kingsborough Community College (Brooklyn, NY)	• Two linked courses recommended or required for an occupational major • Required attendance in an "integrative seminar," a 1-credit course designed to help students make connections between their linked courses, course content, career plans, and the real world	• In targeted occupational major: business, accounting, allied health, mental health, early childhood education, tourism and hospitality, criminal justice, and liberal arts • Returning students and transfer students

colleges, with the exception of Kingsborough, designed programs to serve students in developmental education, a group representing at least half of all incoming students at most community colleges and whose success rates are particularly low.[6] The models ranged from basic, which involved mostly just linking two classes, with little or no attempt to integrate the coursework, to more advanced, which included an expectation that faculty teams would collaborate and would create integrative assignments and projects encouraging students to see the connections between the courses, and that students would have access to additional academic and other support.

As described in more detail later in this section, compared with the models designed by the five other colleges in the demonstration, Kingsborough's was advanced in most respects. The career-focused learning communities consisted of three courses: two courses required for a specific major and a third course called the "integrative seminar" that was designed to reinforce the connections between the two other courses as well as expose students to information about careers in their selected majors. Kingsborough's program was also different from the others in that it was designed for students who had completed most or all of any developmental education requirements, had earned at least six college credits, and had declared a major — that is, it was for second-semester students (or beyond) rather than for incoming freshmen.

To date, and with this report, results from four of the six sites in the Learning Communities Demonstration are now available — Kingsborough, Hillsborough, Queensborough, and Houston community colleges. The findings are generally consistent with the findings from the Opening Doors study of learning communities at Kingsborough, although less encouraging. The results vary slightly for the different colleges but in general do not point to large or sustained impacts of learning communities on the measured outcomes.[7] Table 1.2 summarizes the main results for the original Opening Doors study at Kingsborough and the four studies from the Learning Communities Demonstration mentioned above for the key outcomes of interest, which include (1) passing a developmental education course during the semester in which the learning community was run (the "program semester"); (2) reenrolling in college in the semesters following participation in the learning community (the "postprogram semesters"); and (3) earning more credits. The study findings in the table show that, compared with regular services, learning communities are generally:

- Better at helping students progress through a developmental education course sequence such as math or English, particularly during the semester in which the learning community is operating
- Not better at improving semester-to-semester persistence
- Not better at helping students accumulate credits toward a credential

[6]Adelman (2004).

[7]Weiss, Visher, and Wathington (2010); Weissman et al. (2011).

Learning Communities Demonstration

Table 1.2

Results from Past Random Assignment Evaluations of One-Semester Learning Community Programs

KCC Career-Focused Learning Communities Report

Outcomes	Kingsborough Opening Doors	Hillsborough LC Demo	Queensborough LC Demo	Houston LC Demo	Kingsborough LC Demo
Passed developmental course in program semester	+	0	+	+	N/A[a]
Reenrolled in program college: first postprogram semester	0	0	0	0	0
Earned more credits (cumulative)[b]	+	0	0	0	0

SOURCE: Scrivener et al. (2008); Weiss, Visher, and Wathington (2010); Weissman et al. (2011).

NOTES: The plus sign (+) indicates that statistically significant and positive impacts were found for the whole sample; 0 indicates that no statistically significant impacts were found in either direction for the whole sample. No negative impacts of learning communities were found for any of the five programs.

[a]N/A = not applicable. The Learning Communities Demonstration at Kingsborough did not target developmental education or include a developmental course in the links.

[b]The number of cumulative semesters varied across sites: at Kingsborough (Opening Doors), there were four semesters of data; at Hillsborough, there were two semesters; Queensborough had three semesters of data; Houston had two semesters; and Kingsborough (LC Demo) had two semesters.

The Policy Context

Much has been written in recent years about the alarmingly low completion rates of students in community colleges, particularly those of students who are required to enroll in developmental (remedial) courses before progressing to credit-bearing, college-level courses that count toward a degree. But even students who are able to beat the odds and complete all their remedial coursework often drop out before attaining their educational goals. Among students who enroll

in community college hoping to graduate with a credential or to transfer to a four-year institution to earn a bachelor's degree, nearly 50 percent fail to achieve this goal within six years.[8]

Many factors contribute to the high attrition and low success rates of community college students.[9] Among them are poor academic skills, lack of financial support, lack of motivation, a sense of not belonging in the college community, competing demands from family and jobs, and inadequate college readiness skills. Community colleges have turned to learning communities, a model with roots that go back to the nineteenth century but adapted by and for today's community colleges as a strategy to help students overcome at least some of those barriers.

The Case for Learning Communities and Key Components of the Model

The theory of change for the increasingly popular learning community strategy is that students who are more engaged in what they are learning and more connected with each other and with their instructors are more likely to master the course material, pass their courses, and persist from semester to semester.[10] Briefly, the model predicts that better student outcomes, such as higher rates of persistence and higher rates of earning credits and credentials, come about in two ways: first, by strengthening or accelerating both academic and social networks among students, which leads to a heightened sense of belonging and support, and second, by making instruction more engaging and relevant for students, thereby improving motivation and engagement as well as enhancing learning outcomes and academic achievement. The learning community model, as described by its proponents, consists of four key components, although programs that can be found in colleges vary considerably both in how much these components are emphasized and, of course, how well they are actually implemented in colleges.[11]

Table 1.3 lists the four components along with some indicators of basic, midrange, and advanced versions of each component. A model that includes an advanced version of all four components is considered advanced; a model that includes only a subset of the components or the most basic version of the four components is considered basic. Below are brief descriptions comparing how each component might look in an advanced learning community and in a basic learning community.[12]

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[8]Radford, Berkner, Wheeless, and Shepherd (2010).

[9]Adelman (2004); Bailey and Alfonso (2005); Levin and Calcagno (2008).

[10]See Visher, Wathington, Richburg-Hayes, and Schneider (2008) and Smith, MacGregor, Matthews, and Gabelnick (2004) for a review of the literature.

[11]Tinto (1975); Tinto (1997); Tinto (1998); Engstrom and Tinto (2008); Malnarich (2003); Visher, Schneider, Wathington, and Collado (2010)

[12]For a more detailed description of the practices associated with each component, see Visher, Schneider, Wathington, and Collado (2010).

The Learning Communities Demonstration

Table 1.3

Components of the Learning Community Model

KCC Career-Focused Learning Communities Report

Component	Basic	Midrange	Advanced
Component 1 Links and coenrollment	Students in the links are a mix of learning community students and students taking the course as a stand-alone.	Most, but not all, of the students in the linked courses are in the learning community.	Cohorts are "pure": all students in all the links are part of the learning community. Courses are selected to promote integration.
Component 2 Teacher collaboration	Teacher teams do not collaborate on curriculum or other matters.	Teacher teams communicate periodically throughout the semester.	Teacher teams spend time planning before, during, and after each semester. Instructors have access to professional development and ongoing support.
Component 3 Instruction	Courses are taught as if they were stand-alone.	Teachers assign at least one joint project during the semester.	Syllabi are fully aligned, with an overarching theme; intentional integration, including several joint projects, joint grading rubrics, and joint attendance policies. Instruction includes project-based work and group work.
Component 4 Student support	No extra support offered to students beyond what is normally offered.	Some extra support is offered but it is not integrated into the classroom.	Extra support is available and integrated into the classroom *or* required for students.

SOURCES: This framework draws on work by Tinto (1997, 1998), Malnarich et al. (2003), and Smith et al. (2004).

- **Links and Student Coenrollment**

  Advanced: Groups of students are coenrolled in two or more linked courses. Courses are selected deliberately to facilitate teaching that emphasizes the interconnections between the two courses (called "integrated learning"). Classes are scheduled back-to-back (called "block scheduling") to lengthen the time students spend together; to allow time for team-based, long-term

projects (called "project-based learning"); and to encourage attendance among students who work and therefore spend less time on campus.

Basic: Some students may take only one of the two courses in the link while others are enrolled in the full learning community — that is, in both classes.

- **Teacher Collaboration**

  Advanced: Instructors collaborate closely with each other to plan and run their learning community. Faculty pairs or teams prepare joint rubrics for grading students' projects; that is, all the instructors who teach a particular learning community determine each student's grade jointly — so, for instance, an English instructor and a sociology instructor would agree on a single grade for a student. Faculty teams meet regularly before, during, and after the semester and often teach together. Faculty members receive paid release time or a stipend and professional development to encourage the use of certain pedagogical practices.

  Basic: Instructors in the linked courses teach many or all of the same students but rarely if ever collaborate on curriculum or on strategies to help struggling students.

- **Instruction**

  Advanced: Instructors try to foster integrated learning by intentionally emphasizing connections between the two courses as well as connections between what the students are learning in class with their own lives and the world around them. Instructors tend to rely on techniques such as group work (which sometimes involves assigning one grade for the entire group), reflection, and project-based learning to engage students, rather than rely on the lecture format.

  Basic: Instructors teach as they normally would, using a range of approaches from lecture to group work.

- **Student Support**

  Advanced: Students have enhanced access to academic supports such as tutoring or an academic adviser who has been assigned to his or her learning community. Some learning communities include a "student success" course as part of the link, thus embedding extra support into the learning community itself. Student success courses focus on skills needed to succeed in col-

lege, with topics ranging from reading and writing to study, time management, and self-awareness skills.

Basic: Students in learning communities receive the same student support services as students would receive in stand-alone classes, which is typically access to tutoring, a computer lab, and advisers.

With the exception of student support, Kingsborough's career-focused learning communities model incorporated advanced versions of all the components of learning communities. The heavy emphasis on what the college called "intentional integrated instruction" and the generous support instructors would receive to teach in this way, along with the integrative seminar to reinforce this integrated learning, were the hallmarks of this distinctive approach to organizing learning communities.

Kingsborough Community College's Career-Focused Learning Communities

The Career-Focused Learning Communities program at Kingsborough Community College opened its doors to its first cohort of students in the demonstration in spring 2007. The college put everything it had learned from nearly 15 years of running learning communities into this newest iteration, and optimism was high that this program would work at least as well as its predecessor, the Opening Doors learning communities program. As the president of the college said in an interview in the spring of 2007, "If it works for students in developmental education, it has to work for students who are already interested in a field. We hope to see significance."

The college president's words reflect the extraordinary commitment of Kingsborough not only to learning communities but also to relying on evidence for making programmatic decisions. Known for its organizational culture that favors innovation and continuous improvement, Kingsborough was eager to learn about the impact of its newest learning communities program. When MDRC — the same research organization that had conducted the study of Kingsborough's learning communities earlier — approached the college's leaders in late 2006 and asked them to join the NCPR's Learning Communities Demonstration, they readily agreed.

If Kingsborough Community College has a national reputation, it is most likely because of its long history of and success in running learning communities, which now serve about half of all its incoming freshmen. Along with colleges like LaGuardia Community College in New York and DeAnza College in California, Kingsborough's leaders and staff often give presentations at conferences and travel around the country to help other colleges establish or scale up their learning communities programs. Colleges come to Kingsborough for its summer institute on learning communities. The college began experimenting with learning communities in the mid-1990s with a program targeted to English as a Second Language (ESL) students who were

entering degree programs. Later, using a federal grant, the college piloted a second learning communities program targeting students in four "career majors" — accounting, business, mental health, and early childhood education — an early version of the program that was evaluated in the Learning Communities Demonstration. That program ended in the early 2000s once the grant ran out. In the meantime, in the late 1990s, the college had turned its attention to the students whose outcomes were most worrisome, those in need of developmental coursework. MDRC evaluated the learning community model designed for those students as one of six programs in Opening Doors. The results, which were released in 2005, encouraged the college to expand its learning communities program by offering it to freshmen in their second semester — the program that is the subject of this report. Program planners were eager to learn whether experiencing a second semester of learning communities would further improve student outcomes, and they initially called the program "Second Semester Learning Communities." They later renamed the program "Career-Focused Learning Communities" to highlight one of its central goals — to help students make more informed decisions about careers in their chosen majors.

Kingsborough's broader goal for the career-focused learning communities was closely aligned with the goals of most learning community programs: to help students achieve their career objectives by accumulating credits and graduating. An additional goal, according to program leaders, was to reduce the time that students spend — often needlessly — as they try to settle on a major, take a course or two, change their minds, and then decide on yet another major. Although the college's leaders acknowledged that some exploration is appropriate, they had observed many students "spinning their wheels" while starting down a path only to change course and change course again. This behavior, they pointed out, often led to depletion of financial aid and resources, delayed graduation, and receipt of degrees or certificates that students belatedly realized would not position them for the career they wanted. Kingsborough hoped that by offering opportunities in the classroom during the first year to explore careers in their declared major in the context of the learning community experience, more students would earn a degree that was relevant to their interests in a reasonable amount of time and go on to a rewarding and successful career.

With this program, Kingsborough pioneered several ideas that went well beyond the basic learning communities found in many community colleges. The program linked three courses rather than the more typical two. Two of the courses were college-level courses and the third was a one-credit seminar. Instructors were expected to spend significant time planning and integrating their courses together and were given the support to do so. Strong emphasis was placed on integrative assignments, project-based learning, and other pedagogies that characterize more advanced learning communities. Instructors were encouraged to use joint assessments of students' projects. Also novel for the demonstration was the target population: students in their second or even third semester who were beyond developmental education and had declared a major, and were thereby several steps ahead of developmental students in pursuing their career

objectives. About a third of these students were new to the Kingsborough campus, having transferred from other colleges, and the rest were returning Kingsborough students. Many of the latter group had already participated in a learning community during their first semester.

As discussed in this report, in part because of the ambitious but untested elements of the model, the Career-Focused Learning Communities program at Kingsborough faced some difficulties in reaching a steady state over the course of the five semesters during which the program operated. For example, fewer students than anticipated were eligible for or interested in enrolling in the learning communities in their declared majors, which forced the college to make a series of programmatic changes such as changing the links each semester to try to attract more students. By the time the demonstration period was nearly over, the program had begun to mature and stabilize, much to the credit of the college's efforts to make the program work.

Organization of This Report

The next chapter describes the setting at Kingsborough, the random assignment method used for this study, the characteristics of the study sample, and the data sources for both the implementation research and the impacts analysis. Chapter 3 explains in more detail the four components of the Kingsborough model of learning communities and how the model was implemented over the course of the demonstration. The chapter also addresses the question of how different the experiences of the control group were from those of the program group. Chapter 4 presents the results of the impacts study. Chapter 5 concludes the report with some reflections on the meaning of the findings both for the model evaluated at Kingsborough and for learning communities generally.

Chapter 2

The College, the Study Sample, and Data Sources

Kingsborough Community College is situated in a quiet residential neighborhood on a beautiful piece of waterfront property in southeastern Brooklyn. In addition to its beachfront along the Atlantic coast, the college boasts an aquarium and art gallery, and has several outdoor sculptures that give the campus a distinct character.

It is the only community college in Brooklyn — the most populous borough of New York City — with a population of roughly 2.5 million people. Brooklyn has no majority racial or ethnic group: 40 percent are white, 34 percent are black, 20 percent are Hispanic (any race), and 10 percent are Asian. Close to half of all Brooklyn residents speak a language other than English at home.[1] As shown in Table 2.1, the student body at Kingsborough reflects the diversity of the community it serves: at the time of the demonstration, the student body was about 40 percent white, 30 percent black, 14 percent Hispanic, and 12 percent Asian. Several dozen languages are spoken by its students, whose families come from over 100 countries.[2]

One of six community colleges in the City University of New York (CUNY) system, Kingsborough has a staff of more than 800 and an operating budget of nearly $60 million a year. It serves nearly 40,000 students annually in both its degree and continuing education programs.[3] Kingsborough's student body is more similar to a "traditional" four-year college population than many other community colleges — more than three-fourths of Kingsborough students are under age 25, and about half attend full time. The college's Web site reports that Kingsborough ranks in the top 5 percent of community colleges nationwide in the number of associate's degrees awarded.[4]

Building the Sample for the Career-Focused Learning Communities Study

The learning communities in the demonstration were organized around eight majors: business administration, accounting, allied health, mental health, early childhood education, tourism and hospitality, criminal justice, and liberal arts. The learning communities linked a single-credit

[1]Scrivener et al. (2008).
[2]Bloom and Sommo (2005).
[3]From the KCC Web site, www.kbcc.cuny.edu.
[4]From the KCC Web site, www.kbcc.cuny.edu.

The Learning Communities Demonstration

Table 2.1

Selected Characteristics of Kingsborough Community College

KCC Career-Focused Learning Communities Report

Characteristic	Kingsborough
Student population	14,962
Has tenure system	Yes
Undergraduate characteristics	
Gender (%)	
Male	42.3
Female	57.7
Age (%)	
18-24 years	75.6
25-34 years	13.7
35 years and above	10.7
Race/ethnicity (%)	
Hispanic	13.9
White	38.5
Black	31.1
Asian	12.2
Other	4.4
Enrollments (%)	
Full time	53.7
Part time	46.3
Full-time retention rate[a] (%)	65
Part-time retention rate (%)	48

SOURCES: MDRC calculations using U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) data.

NOTES: Data are from fall 2007.
Distributions may not add to 100 percent because of rounding.
[a] According to IPEDS, this is the percentage of first-time degree/certificate-seeking students from the previous fall who either reenrolled or successfully completed their program by the current fall.

"integrative seminar" with two courses required for the major. The integrative seminar was designed to reinforce the learning in the other two courses as well as raise awareness of careers in the chosen major through field trips and employer visits. As Chapter 3 discusses in more detail, the design of the Career-Focused Learning Communities program at Kingsborough was one of the most advanced in the Learning Communities Demonstration. It was also very different from

the other programs in that it targeted students in their second semester or beyond and who had completed most if not all of their developmental work. Eligibility for participation in the study of Kingsborough's career-focused learning communities was limited to continuing students who had earned six or more credits, declared one of the eight majors, and were able to take the learning communities courses at the scheduled times.

A total of 917 students were enrolled in the study between May 2007 and September 2009. Cohorts of program group students participated in the single-semester Career-Focused Learning Communities program over the course of five semesters: fall 2007, spring 2008, fall 2008, spring 2009, and fall 2009.

Characteristics of the Sample

Characteristics of the students who enrolled in the study of career-focused learning communities at Kingsborough at the time of random assignment are shown in Table 2.2. The study sample is not generally representative of the broader student body at Kingsborough, whose characteristics are shown in Table 2.1, because the students in the study were continuing students who had declared one of the majors that was offered in the learning communities program. Nonetheless, the majority of study participants were women (58.6 percent), which is consistent with the larger student body at Kingsborough as well as demographic trends at community colleges nationwide.[5] About 85 percent of the study participants at Kingsborough were 25 or younger, and 58 percent of study participants at Kingsborough were between the ages of 18 and 20 at the time they enrolled in the study, meaning that the majority of sample members were of traditional college age.

The study sample has no clear racial majority, reflecting the diversity of the student body at Kingsborough — 35.6 percent of sample members are black, 29.9 percent are white, 20.2 percent are Hispanic, and 10.3 percent are Asian or Pacific Islander. About 40 percent of students in the study speak a language other than English in the home.

The vast majority (84.5 percent) of sample members had earned a high school diploma, and most sample members (74.4 percent) had graduated from high school or earned a General Educational Development (GED) certificate during the five years preceding random assignment. About 25 percent of the sample members are the first in their family to attend college. Roughly 26 percent of students reported having participated in a learning community prior to random assignment.

[5]National Center for Education Statistics (2011).

The Learning Communities Demonstration

Table 2.2

Characteristics of Kingsborough Sample Members at Baseline

KCC Career-Focused Learning Communities Report

Characteristic	Full Sample	Program Group	Control Group
Gender (%)			
Male	41.4	40.4	42.7
Female	58.6	59.6	57.3
Age (%)			
18-20 years	57.9	58.2	57.4
21-25 years	27.6	27.2	28.0
26-30 years	5.7	5.4	6.2
31 years and above	8.9	9.2	8.4
Race/ethnicity[a] (%)			
Hispanic	20.2	20.9	19.1
White	29.9	28.2	32.2
Black	35.6	34.9	36.6
Asian or Pacific Islander	10.3	11.9	8.1
Other	4.0	4.1	3.9
Ever participated in a learning community (%)	26.2	26.7	25.4
Student status (%)			
Returning	64.4	63.8	65.2
Transfer	35.6	36.2	34.8
Marital status (%)			
Married	6.4	6.0	6.8
Unmarried	77.3	78.0	76.3
Decline to answer	16.4	16.0	16.9
Has 1 or more children (%)	11.7	12.6	10.4
Household receiving any government benefits[b] (%)	17.2	17.4	16.8
Decline to answer	24.9	26.2	23.1
Financially dependent on parents (%)	36.6	38.7	33.6
Information missing	22.8	21.3	24.8
Currently employed (%)	37.8	37.6	38.0
Decline to answer	15.6	15.3	16.0
Received financial aid during semester of random assignment (%)	52.2	52.9	51.1
Information missing	16.7	17.1	16.0
Highest grade completed (%)			
11th grade or below	10.0	10.5	9.4
12th grade	80.6	81.1	79.9
Information missing	9.4	8.4	10.8

(continued)

Table 2.2 (continued)

Characteristic	Full Sample	Program Group	Control Group	
Diplomas/degrees earned[c] (%)				
High school diploma	84.5	83.6	85.8	
General Educational Development (GED) certificate	14.5	15.3	13.3	
Occupational/technical certificate	3.6	2.6	5.1	**
None of the above	0.2	0.4	0.0	
Date of high school graduation/GED certificate receipt (%)				
During the past year	26.1	26.5	25.5	
Between 1 and 5 years ago	48.3	49.2	47.0	
More than 5 years ago	17.8	17.5	18.2	
Decline to answer	7.8	6.8	9.3	
First person in family to attend college (%)	25.0	23.3	27.4	
Own or have access to a working car (%)	36.8	37.3	36.0	
Language other than English spoken regularly in home (%)	38.9	38.9	38.9	
Sample size	917	537	380	

SOURCE: MDRC calculations using Baseline Information Form (BIF) data and Kingsborough Community College admissions data.

NOTES: Calculations for this table used all available data for the 917 sample members who were in the research sample.

A two-tailed t-test was applied to differences between the program group and control group for variables that are not mutually exclusive and mutually exhaustive (e.g., diplomas/degrees earned). A chi-squared test was applied to differences between the groups of categorical variables that are mutually exclusive and mutually exhaustive (e.g., race/ethnicity). Statistical signficance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. No statistically significant differences were found between any groups of mutually exclusive/exhaustive categorical variables in the table above.

Random assignment ratios vary across cohorts. Estimates are weighted to account for the probability of being assigned to the treatment group.

Missing values are only included in variable distributions for characteristics with more than 5 percent of the sample missing.

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 only in the "other" multiracial category.

[b]Government benefits include food stamps, Temporary Assistance for Needy Families (TANF), unemployment insurance benefits, and Supplemental Security Income (SSI).

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

Kingsborough admissions data were used to determine students' returning or transfer status at intake. In cases where administrative records from Kingsborough were not available, the student's self-reported status from the baseline information form (BIF) — a short questionnaire that collected demographic and other background information about the study sample — was used. A little less than two-thirds (64 percent) of the study sample comprised students who were returning to Kingsborough, and just over one-third (36 percent) were transfer students, based on Kingsborough admissions data. Of those who were transfer students, roughly 65 percent had transferred to Kingsborough from four-year institutions, often because of poor academic performance.

Students who entered the study as transfer students tended to be somewhat different from the returning students. As shown in Table 2.3, they were generally older, more likely to be working at the time of study intake, more likely to have a high school diploma, and less likely to have a GED certificate than the returning students. Transfer students were also more likely to have access to a working car and to have graduated from high school more than a year before, which could be related in part to the fact that they were older and more likely to be working than the returning students. Returning students were more likely to report receiving financial aid, but the large number of missing responses for the transfer students makes this difficult to know with certainty.

Kingsborough's Career-Focused Learning Communities program included only college-level courses; however, about 31 percent of the students in the program took at least one developmental course during the study period. This is not surprising since many courses at Kingsborough do not require students to have completed their developmental requirements as a prerequisite, and only 60 percent of all degree-seeking students at Kingsborough demonstrate proficiency in reading, writing, and/or math by the time they earn 25 credits.[6]

The Random Assignment Design

As mentioned in Chapter 1, random assignment creates two similar groups of students, both in characteristics that can be measured, such as age and gender, and those that are more difficult to measure, such as motivation and tenacity.[7] Any subsequent substantial differences in outcomes can be attributed, with a high level of confidence, to systematic differences in students' experi-

[6]See www.kbcc.cuny.edu/irap/pdf/pmp_highlights.pdf. For students who place into developmental courses, demonstrating proficiency requires passing the CUNY/ACT test in reading and writing, and the COMPASS test in math. Students who enter Kingsborough with the requisite standardized test scores and/or high school coursework are exempt from this requirement.

[7]The two groups should be similar in terms of averages (for example, average age) as well as other distributional characteristics. Analyses of the program and control group characteristics demonstrated that random assignment led to the successful creation of research groups that were very similar when the program began.

The Learning Communities Demonstration

Table 2.3

Characteristics of Kingsborough Sample Members at Baseline, by Transfer Status

KCC Career-Focused Learning Communities Report

Characteristic	Full Sample	Transfer Students	Returning Students	Sig.
Gender (%)				
Male	41.4	39.1	42.6	
Female	58.6	60.9	57.4	
Age (%)				***
18-20 years	57.9	50.3	62.0	
21-25 years	27.6	32.1	25.0	
26-30 years	5.7	6.5	5.3	
31 years and above	8.9	11.2	7.6	
Race/ethnicity[a] (%)				
Hispanic	20.2	22.2	19.1	
White	29.9	29.8	29.9	
Black	35.6	33.9	36.5	
Asian or Pacific Islander	10.3	10.1	10.4	
Other	4.0	4.0	4.1	
Ever participated in a learning community (%)	26.2	7.4	36.3	***
Marital status (%)				
Married	6.4	5.7	6.8	
Unmarried	77.3	80.6	75.4	
Decline to answer	16.4	13.7	17.8	
Number of children (%)				
None	88.3	89.0	87.9	
1 or more	11.7	11.0	12.1	
Household receiving any government benefits[b] (%)	17.2	16.8	17.4	*
Decline to answer	24.9	21.0	27.1	
Financially dependent on parents (%)				
Yes	36.6	33.6	38.2	
No	40.7	43.5	39.1	
Information missing	22.8	22.9	22.7	
Currently employed (%)				*
Yes	37.8	42.4	35.2	
No	46.7	43.3	48.5	
Decline to answer	15.6	14.2	16.3	
Received financial aid during semester of random assignment (%)				***
Yes	52.2	36.7	60.7	
No	31.2	31.3	31.1	
Information missing	16.7	32.0	8.2	

(continued)

Table 2.3 (continued)

Characteristc	Full Sample	Transfer Students	Returning Students	Sig.
Highest grade completed (%)				***
11th grade or below	10.0	3.1	13.9	
12th grade	80.6	89.1	75.9	
Missing	9.4	7.8	10.2	
Diplomas/degrees earned[c] (%)				
High school diploma	84.5	93.0	79.8	***
General Educational Development (GED) certificate	14.5	3.5	20.5	***
Occupational/technical certificate	3.6	2.6	4.2	
None of the above	0.2	0.3	0.2	
Date of high school graduation/GED certificate receipt (%)				***
During the past year	26.1	4.3	38.2	
Between 1 and 5 years ago	48.3	66.7	38.1	
More than 5 years ago	17.8	23.1	14.9	
Decline to answer	7.8	6.0	8.8	
First person in family to attend college (%)	25.0	21.9	26.7	
Own or have access to a working car (%)	36.8	41.0	34.4	*
Language other than English spoken regularly in home (%)	38.9	42.6	36.8	*
Sample size	917	327	590	

SOURCE: MDRC calculations using Baseline Information Form (BIF) data and Kingsborough Community College admissions data.

NOTES: Calculations for this table used all available data for the 917 sample members who were in the research sample.

A two-tailed t-test was applied to differences between the transfer and non-transfer group for variables that are not mutually exclusive and mutually exhaustive (e.g., diplomas/degrees earned). A chi-squared test was applied to differences between the groups of categorical variables that are mutually exclusive and mutually exhaustive (e.g., race/ethnicity). Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Random assignment ratios vary across cohorts. Estimates are weighted to account for the probability of being assigned to the treatment group.

Missing values are only included in variable distributions for characteristics with more than 5 percent of the sample missing.

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 only in the "other" multiracial category.

[b]Government benefits include food stamps, Temporary Assistance for Needy Families (TANF), unemployment insurance benefits, and Supplemental Security Income (SSI).

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

ences after they were randomly assigned — in this case, the opportunity to participate in a career-focused learning community.

Random assignment allows researchers to calculate unbiased estimates of the *value added* by the program, above and beyond what students normally receive at the college. The impacts reported are the magnitude of *additional* outcomes, above and beyond what students would have achieved in the absence of the program.[8]

While a random assignment evaluation is an extremely reliable way to test a program's overall effectiveness, it, like any research method, has its limitations. The students in the study volunteered to participate, and may differ from students who did not elect to participate, limiting the ability to generalize the findings to all students. Like many evaluation designs, random assignment does not enable the effects of different components of the program to be isolated. This study will determine whether the Career-Focused Learning Communities program at Kingsborough was effective as a whole. The program included the linking of two classes (creating cohorts of students), the integrative seminar (focusing on reinforcing the interdisciplinary teaching in the other courses and raising students' awareness of career options), certain instructional strategies (such as integration of material across the two courses), and the qualities of teachers who taught in the learning communities.[9] The qualitative research that was conducted as part of this study can help inform which elements of this program package mattered most to the program leaders, instructors, and students who participated in the learning communities, but it will not yield definitive answers as to which of these components most influenced student outcomes, such as passing courses and persistence to the next semester.

Data Sources and Follow-Up Periods

Quantitative Student-Level Data

Students at Kingsborough completed the baseline information form prior to being randomly assigned. The BIF collected the demographic and other background information on the study sample reported above, as well as some additional measures. Baseline data are used to describe the sample and to show similarities between the program and control groups, with respect to their characteristics, at the time of intake into the study.

[8]See Box 4.1 in Chapter 4 for a discussion of how to interpret the impact tables in this report.

[9]Teachers were not randomly assigned to teach in the learning community classes or in the control group classes. As a result, program impacts — whether positive, negative, or not statistically significant (that is, impacts that may have arisen by chance) — may be influenced by the efficacy (or lack thereof) of the teachers who taught students participating in the program. Notably, some program group teachers also taught unlinked versions of their courses that were available to control group students, thus partially mitigating concerns regarding these teacher effects. See Weiss (2010).

Kingsborough provided administrative admissions data for the students in the study. These data are used to identify students as either returning or transfer students.

Kingsborough also provided transcript data for all students (both program and control groups) participating in the study. These data are used to provide a detailed look at sample members' performance in college according to various measures such as enrollment status, credits attempted, and credits earned. This report presents a range of transcript data outcomes for the first semester that each sample member was in the study, when program group students had the opportunity to participate in the Career-Focused Learning Communities program (the "program semester"), and the following semester (the first "postprogram semester"). This yields a two-semester follow-up period for the students at Kingsborough.[10] The transcript data are used in Chapter 4 of this report to describe the impacts of the Career-Focused Learning Communities program on education outcomes.

Qualitative Data

Research staff visited Kingsborough Community College for two days in the spring of 2008. A one day follow-up visit was made in the spring of 2009. During these visits, the research team interviewed college administrators, instructors, staff, and students. The interviews provided information on the operation of the program and on key differences between the learning communities program and the college's standard services (as could have been experienced by students in the control group). The research team also observed some learning communities classes and interviewed some program and control group students in small focus groups to understand their experiences at the college and, for program group students, in the learning communities. Both group and individual interviews were conducted with instructors who taught in learning communities. Interviewers also spoke with a small number of instructors who taught stand-alone versions of the courses in the learning communities.

Research staff involved in providing technical assistance for the operation of the study maintained detailed "site diaries," documenting information on study intake and the random assignment process, setting up and staffing of the learning communities, and professional development activities. Changes in the learning communities program were documented as well, along with problems encountered and solutions applied by the college. These diaries also served as a data source for the implementation research.

Additionally, a short survey was administered to instructors, both full-time faculty and adjunct instructors (who teach part time), to assess the characteristics and pedagogical beliefs and practices of learning community instructors and the extent to which they were similar to other instructors. This survey was administered to all six colleges in the Learning Communities

[10]Some sites in the Learning Communities Demonstration had three semesters of follow-up.

Demonstration with the intention of pooling the data across all six colleges. While the number of responses from any single college is generally not sufficient to draw inferences about either learning community instructors or those who did not teach in a learning community, or how they differed, selected results are reported here for illustrative purposes only.

Survey questions were designed to describe the use of instructional strategies that are commonly associated with learning communities, participation in professional development opportunities, and teacher characteristics that might be associated with differences in teaching approaches such as age, gender, seniority, and part-time versus full-time status.[11]

Syllabi from the linked courses in the learning communities were examined for evidence of practices that are commonly associated with learning communities, such as overarching themes, joint assignments, integrated syllabi, and project-based learning.

Qualitative data, survey data, and syllabi scores are used primarily in Chapter 3 of this report to describe the learning communities model and its implementation, to illustrate how the program differed from the college's standard services, and to describe the evolution of the program over time.

Participation in the Learning Communities

Of the 917 students who participated in the Learning Communities Demonstration at Kingsborough, 537 were randomly assigned to the program group and the remaining 380 were randomly assigned to the control group, where they were eligible to receive only the standard services offered by the college. A total of 32 career-focused learning communities in eight different majors were offered at Kingsborough during the course of the study.

The overall participation rate for the program was high; about 84 percent of the students who were referred to learning communities enrolled and stayed in the required courses through the period when they had the option to add or drop courses. Among the students who enrolled in any courses during the first semester after random assignment, the learning communities participation rate was closer to 88 percent, though there was some slight variation in the participation rate across the different majors. Transfer students tended to participate at higher rates than returning students.

[11]The faculty survey at Kingsborough had an overall response rate of 56 percent. A disproportionately high percentage of program group faculty members responded (27 out of 40) compared with faculty members who did not teach in a learning community (8 out of 23). For more detail on the faculty survey, see Visher, Schneider, Wathington, and Collado (2010).

Chapter 3

Implementing the Career-Focused Learning Communities Program

The career-focused learning communities model at Kingsborough was the most advanced of the models designed for the Learning Communities Demonstration. Inspired by the learning communities program that was studied as part of the Opening Doors Demonstration, but modified to achieve different goals, Kingsborough's career-focused model included features that went well beyond basic learning communities. Basic learning communities, which are probably the most typical in community colleges, link two courses and coenroll students, but they do not usually integrate the two courses or build in extra support. Kingsborough's model was the only one in the Learning Communities Demonstration that did not include a developmental education course, and it linked three courses rather than the customary two. The third course, the "integrative seminar," was designed to reinforce the interdisciplinary teaching in the other two courses and to raise students' awareness of career options. Instructors were expected to spend a significant amount of time planning and integrating their courses and were given the support to do so. Heavy emphasis was placed on joint assignments and project-based learning.

Below is a summary of the key findings in this chapter:

- Kingsborough's learning communities program model was on the "advanced" end of the continuum and was new to the college, although it built on many years of experience running learning communities.
- Because some features of Kingsborough's ambitious career-focused model were new for the college and because the college had to continuously tinker with the links to enroll enough students in the learning communities, the program never reached a "steady state" despite the college's many years of experience. Program implementation was characterized by several start-up problems that are more typical of a new program than of a well-established program.
- A defining and creative feature of the model, the integrative seminar, was understood differently by different instructors, and student and instructor turnover was high in this course, leading to considerable variation in how the course was taught.

- Kingsborough offers to all its students a learning environment that is distinguished by generous professional development opportunities for faculty, an emphasis on and incentives for good teaching, and a rich array of support services for students. In this setting, all students in the study — including the control group — had access to a high-quality college experience. This environment made it more difficult for learning communities to "add value."

In the following section, the four key components of the career-focused learning communities model as envisioned by the college (and introduced earlier in this report) are described, as well as the ways in which they were implemented: (1) the links and coenrollment of students into those links; (2) faculty collaboration and support; (3) instructional strategies such as integrated learning; and (4) extra student support.

Kingsborough's Model: An Advanced Design but an Evolving Learning Communities Program

Linking Courses and Coenrollment

Kingsborough's career-focused learning communities model was originally designed to incorporate learning communities into the course offerings of five majors: allied health, mental health, early childhood education, accounting, and business administration. The model linked two courses that students needed to satisfy requirements that are specific to particular majors, such as biology and psychology for the allied health major, or psychology and business computing for the accounting major, with a third course that the college called the "integrative seminar." The seminar offered a single credit that counted toward graduation but not toward the requirements of the major. The two courses for the major were selected intentionally to facilitate cross-curricular connections. For example, biology and psychology were linked for the allied health major, allowing instructors to more easily show students the connections between concepts in the two disciplines and the chosen theme for the learning community, which was HIV. Figure 3.1 shows the majors that the college originally selected for the program along with the courses that were linked in each learning community offered in those majors.

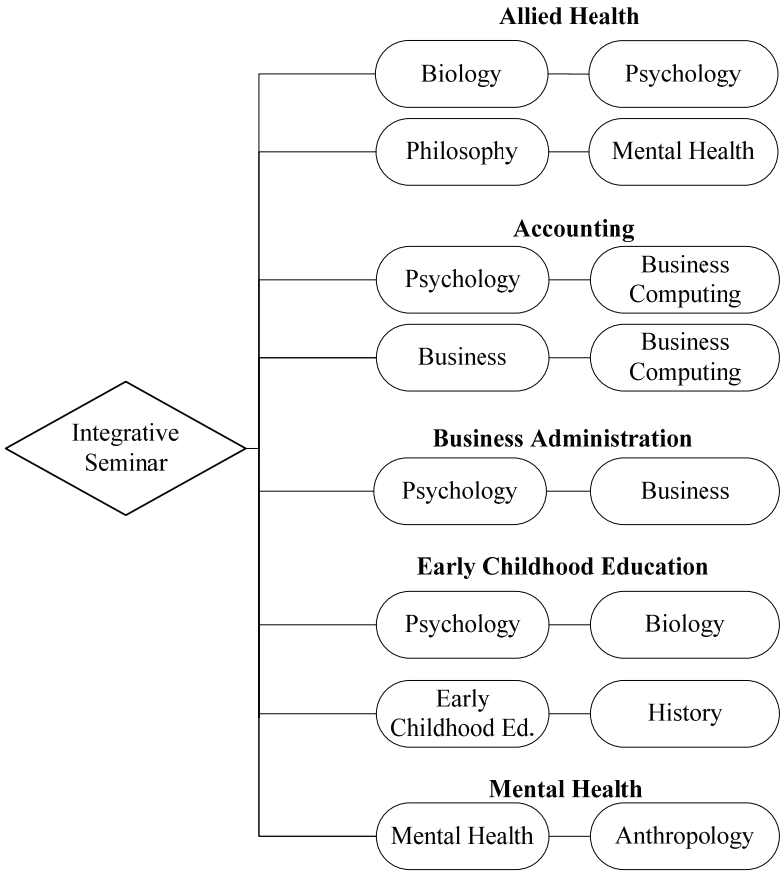
The program targeted students who had declared their intention to major in one of these subjects (a decision that freshmen are asked to make toward the end of their first semester) and had completed at least six credits in previous semesters. Groups of about 25 students were then to be coenrolled as cohorts. Program planners originally set the ideal size of the cohort at 35,

The Learning Communities Demonstration

Figure 3.1

The Original Career-Focused Learning Community Model Evaluated at Kingsborough Community College

KCC Career-Focused Learning Communities Report



NOTE: Over the course of the demonstration, three additional majors were included, for a total of eight: Tourism and Hospitality, Criminal Justice, and Liberal Arts.

which they felt was small enough to facilitate a sense of community but large enough to accommodate group work and other activities that planners felt were essential for learning communities to function properly. Later, they lowered the "ideal size" to 25 as a response to low enrollments, discussed in detail below. The courses were scheduled back-to-back — as is typical for advanced learning communities — to encourage both attendance and communication among students.

The integrative seminar was a unique feature of the Kingsborough model and planners mentioned several goals during interviews. First, the seminar was the primary mechanism by which the college intended to help students explore career options in their major. Plans included inviting employers to the seminar to talk to students and arranging field trips to local worksites that were relevant for each major. Assignments included conducting research on specific occupations. Second, the seminar was set up to reinforce integrated learning through assignments that required students to reflect on the connections between the two other courses in the link, between the courses and their personal lives, and between what they were learning in college and their career interests. Finally, the seminar was an opportunity for students to hone their writing and research skills.

Soon after launching the demonstration, the college found that it needed to revisit nearly every design decision described above, in part to respond to unanticipated shortfalls in the number of students interested in enrolling in learning communities. The college considered each change carefully, vetted the most significant of them with MDRC staff, and acted only on those that they felt would strengthen the learning communities. Changes began in the second semester and continued throughout the demonstration period. As college leaders put it, they had to keep "tinkering with the links" to ensure that the selected courses were needed by most if not all of the students to satisfy requirements in their majors.

Filling the Learning Communities

Despite these continual adjustments, as shown in Table 3.1, many of the learning communities ran with far fewer students than was considered ideal by the learning community leaders at the college. In fact, all but two of the 32 links enrolled fewer students than the targeted 25, and almost 40 percent were run at or below the minimum of 12 students needed to run the class according to college policy. The average class size for the courses in the learning communities was 15, well below the average size of 26 for all classes at Kingsborough.[1] Underenrollment was driven by a number of factors, which took time for the college to fully understand before it

[1]The average class size for the learning communities does not take into account any students who enrolled in just one of the courses in the link. Some learning communities included a few such students to ensure that the course would not be canceled because of underenrollment.

The Learning Communities Demonstration

Table 3.1

Learning Communities Offered and Number of Students Enrolled in Each During the Study Period, Kingsborough Community College

KCC Career-Focused Learning Communities Report

Semester and Major	Linked Courses[a]	Number of Sections	Number Enrolled
Fall 2007			
Business Administration	Organizational Behavior and Management, General Psychology, Career Development Seminar	1	8
Accounting	Introduction to Computer Concepts, General Psychology, Career Development Seminar	1	13
Early Childhood Education/ Mental Health	Introduction to Modern Concepts of Biology, Human Growth and Development, Human Services Seminar	1	11
Allied Health	Human Anatomy and Physiology I and II, Human Growth and Development, Human Services Seminar	1	25
Semester total		4	57
Spring 2008			
Business Administration	Organizational Behavior and Management, General Psychology, Career Development Seminar	1	13
Accounting	Fundamentals of Business, Introduction to Computer Concepts, Career Development Seminar	1	25
Early Childhood Education	Introduction to Modern Concepts of Biology, Human Growth and Development, Human Services Seminar	1	6
Allied Health	Human Anatomy and Physiology I and II, Human Growth and Development, Human Services Seminar	2	15
Mental Health	A Study of Ethical Problems, Human Services Organization, Human Services Seminar	1	6
Semester total		6	65
Fall 2008			
Business Administration	Organizational Behavior and Management, General Psychology, Career Development Seminar	1	15
Accounting	Organizational Behavior and Management, General Psychology, Career Development Seminar	1	22
Early Childhood Education	Introduction to Modern Concepts of Biology, Human Growth and Development, Human Services Seminar	1	16
Allied Health	Human Anatomy and Physiology I and II, Human Growth and Development, Human Services Seminar	2	12
Mental Health	A Study of Ethical Problems, Human Services Organization, Career Development Seminar	1	18
Semester total		6	83

(continued)

Table 3.1 (continued)

Semester and Major	Linked Courses[a]	Number of Sections	Number Enrolled
Spring 2009			
Business Administration	Organizational Behavior and Management, General Psychology, Career Development Seminar	1	10
Accounting	Fundamentals of Business, Introduction to Computer Concepts, Career Development Seminar	1	24
Early Childhood Education	Social Science in Education, Historical Geography, Human Services Seminar	1	11
Allied Health	Human Anatomy and Physiology I and II, Human Growth and Development, Human Services Seminar	2	9
Mental Health	Introduction to Human Services, Introduction to Anthropology, Human Services Seminar	1	18
Liberal Arts	Freshman English II, A Study of Ethical Problems, Human Services Seminar	1	21
Liberal Arts	Freshman English I, Introduction to Sociology, Human Services Seminar	1	11
Tourism and Hospitality	Destination Geography, Tourism and Hospitality Technology, Human Services Seminar	1	14
Semester total		9	118
Fall 2009			
Allied Health	Human Anatomy and Physiology I and II, Human Growth and Development, Human Services Seminar	1	17
Early Childhood Education	Social Science in Education, Historical Geography, Human Services Seminar	1	8
Accounting	Fundamentals of Business, Introduction to Computer Concepts, Career Development Seminar	1	23
Mental Health	Introduction to Human Services, Introduction to Anthropology, Human Services Seminar	1	14
Liberal Arts	Freshman English II, A Study of Ethical Problems, Human Services Seminar	1	17
Criminal Justice	Introduction to Criminal Justice, Effective Public Speaking, Human Services Seminar	1	16
Tourism and Hospitality	Case Studies in Tourism and Hospitality, Business of Tourism and Hospitality, Human Services Seminar	1	13
Semester total		7	108
Total		32	431

SOURCE: MDRC calculations from Kingsborough Community College transcript data.

NOTE: [a]The full name of the Career Development Seminar was "Integrative Seminar in the Application of Behavioral Sciences to Career Development." The full name of the Human Services Seminar was "Integrative Seminar in the Application of Behavioral Sciences to Human Services."

could come up with corrective strategies. The college had originally based its estimates of the number of students who were likely to need certain courses for their majors on transcript records of Kingsborough students from prior years. However, during the planning stage, it had no way of knowing which courses the transfer students had already taken. It turned out that many students had already taken the courses that were offered in some of the learning communities and were therefore not permitted to participate in those learning communities. Others preferred stand-alone classes because they believed that while learning communities were helpful in their first semester, they no longer felt they needed the support once they had progressed to the second semester. Finally, the number of students who had declared their majors in one of the targeted majors turned out to be lower — sometimes dramatically lower — than the college had originally predicted. The number of students who had declared a major in mental health for the fall 2009 semester, for example, turned out to be only about 50.

Whatever the reasons were for the problems in enrolling enough students to fill the planned learning communities, the resulting small class sizes of the learning communities made them difficult to teach, according to instructors. Team work, whole class discussion, and project-based learning — all hallmarks of the pedagogical strategies that learning communities are designed to promote — were apparently less successful with small groups. For example, just a few absent students in a class of 10 or 12 students on a given day could bring group or project work to a standstill. Several instructors pointed to underenrolled classes as being the single greatest challenge they faced in teaching the career-focused learning communities.[2]

In part to ensure that enrollment in the study would meet the target goal, the college made the decision early on to market the program not just to students who had attended Kingsborough in the semester prior, but also to transfer students.[3] The college hoped that learning communities would ease the transition to Kingsborough by helping students get to know faculty and other students and learn their way around campus. Most transfer students had attended four-year institutions in the semester prior to enrolling in the study, as shown in Chapter 2. Of those, according to college officials, most were denied permission to continue at the four-year colleges

[2]Readers who are familiar with the literature from elementary and secondary education may find the Kingsborough instructors' perception that small classes created challenges for teaching paradoxical, since studies have shown that small class sizes tend to lead to better academic outcomes. See Konstantopoulos and Chung (2009); Nye, Hedges, and Konstantopoulos (2004); Nye, Hedges, and Konstantopoulos (2002). More research is needed to explore the relationship between class size and outcomes in postsecondary settings in general and learning communities in particular.

[3]A few transfer students had enrolled in Kingsborough's career-focused learning communities as early as fall 2007, but the concerted effort to enroll transfer students did not begin until spring 2008.

because of poor academic performance.[4] By the end of the demonstration period, transfer students made up over one-third of the study sample.[5]

Another strategy that the college used to fill the learning communities was to expand the number of majors in which learning communities were offered and to link different courses to meet the needs of more students. Learning communities in liberal arts and in tourism and hospitality were added to the original five majors in spring 2009, and a criminal justice learning community was added in fall 2009.

Adding liberal arts learning communities in the spring of 2009 was a particularly significant change to the model. This decision alleviated the enrollment problem, since over 50 percent of students at Kingsborough declare liberal arts as their major.[6] But the decision also meant launching what was essentially an untried learning community, adding to the problems the college was already facing in reaching equilibrium for the learning communities program. As the Vice President of Academic Affairs said in the spring of 2009, "We are now in our fourth semester of random assignment, and we have gotten to understand, more than anything else, the patterns for more advanced students. Freshmen are a relatively easy group to corral and move into a program. KCC is still shaking out the kinds of learning communities we want to run for second semester students."

Every semester, new instructors were recruited to teach in the new or reconfigured learning communities. For example, of the 18 positions in the six learning communities that ran in spring 2008, seven were taken by faculty who had not taught in the program before, meaning that almost half of the instructors were new to the learning community program during that semester. In the final semester (fall 2009), about one-fifth of the teachers were new. The number of new instructors needed for each semester was particularly high for the integrative seminars.

According to past research, instructors need as much as two years to adapt to the learning community mode of teaching and to learn how to collaborate with their partners.[7] Some students noticed that some faculty seemed unsure of how to teach in this new setting. One said that it felt like the professors were "making things up as they go" and "winging it."

[4]Based on admissions data, about 65 percent transferred from four-year schools and 26 percent transferred from other community colleges; information is lacking on the other 9 percent.

[5]Based on administrative data, about 35.6 percent of students had transfer status. (See Table 2.2 in Chapter 2 of this report for more information.)

[6]According to college administrators, many students use liberal arts as a default choice when they are actually undecided.

[7]Visher, Schneider, Wathington, and Collado (2010).

Variation in Teaching the Integrative Seminar

The integrative seminar was to be one of the primary mechanisms in the learning community by which students would learn about career options in their chosen majors. However, both the purpose and content of the integrative seminar kept changing over the five semesters of the program, as administrators and faculty worked to define and agree on its role in the learning community. In the end, the integrative seminar "took on a life of its own," to use the phrase of one instructor, as each instructor or team was encouraged to shape it according to his or her own goals and teaching styles. In a few seminars, the two-hour class was divided into two sections; a faculty member taught the first section, and an adjunct instructor, who concentrated on writing skills, taught the second section. In other seminars, students worked in small groups on joint assignments and projects. One instructor said he taught his class as if it were a "mini-sociology class." Another arranged for a local theater group to come to the allied health seminar to talk about their work to raise awareness about HIV through street theater.

Students in focus groups seemed confused about the purpose of the seminar and many resented both the extra work and the rule that they could not drop the seminar without dropping the other courses in the learning community. Students complained that the seminar was "a waste of time" since it did not count toward the major, and some faculty reported low or sporadic attendance as well as classroom management problems.

Faculty Collaboration and Professional Development

Kingsborough leaders take the job of motivating, training, and matching faculty in learning communities seriously. The model includes a paid faculty development coordinator, written guidelines about what learning community instructors are expected to do, compensation for the extra time needed by faculty to plan, and ongoing professional development opportunities ranging from one-on-one consultations with the faculty development coordinator to participation in conferences and institutes.

But Kingsborough's approach to faculty collaboration starts even before the semester begins with a set of practices honed over the years to ensure that instructors are suited for and prepared to teach in learning communities. Instructors are recruited through a collaborative process involving the Vice President of Academic Affairs and deans and department chairs who collaborate to identify faculty who would be good candidates. Matching up instructors to teach together is also done carefully and intentionally, a process informed by years of trial and error.

For the Career-Focused Learning Communities program, Kingsborough planned several strategies to prepare and support instructors. Instructors were expected to spend around 25 hours each semester meeting with the other instructors in the team and visiting each other's classes. The faculty development coordinator planned to meet with the learning community

teams either individually or in small groups before, during, and at the end of each semester. Each encounter was to have a different goal and process. In the first meeting, the coordinator would review the syllabi to make sure they were aligned with the others in the learning community and included several joint assignments and synchronized readings, a long-term group project, and an overarching theme that showed the connection between the classes. A check-in during the middle of the semester was intended to review how the class was going and to suggest adjustments. At the end of the semester, the coordinator was to meet with faculty to review student work and suggest changes in the course plan for the following semester based on an assessment of how well students were learning.

For the most part, these plans were well implemented during the program, and according to interviews, many faculty participated in the planned activities, and the process worked well. For example, the faculty development coordinator described the value of meeting with instructors near the end of each semester:

> We look at students' work. I tell them to keep some students' work and collect student reflections, and we use that [material] to plan for the next semester. Those I can set up on reading days. That's the only time faculty are free before final exams. When I look at students' work at the end I can see what's working and what's not. More happens in that final meeting and we plan for next semester.

The only significant departure from the plan was that the periodic faculty development workshops were eliminated in the last two semesters because of a lack of time. The faculty development coordinator explained,

> It's been impossible to find time during the semester. I've given up. It just got to a point of absurdity. Scheduling is so hard. Faculty teach 27 hours a week, they're on committees. It's impossible to find a common time. Everyone's too busy.

As in all the Learning Communities Demonstration sites, the number of hours that faculty teams spent collaborating varied, but it appears that at Kingsborough the majority spent at least some planning time together. About 30 (70 percent) of the learning communities instructors responded to a survey (which was administered to learning community and non–learning community faculty) about their teaching practices and beliefs.[8] All 30 reported discussing teaching practices with other faculty at least once a semester, and half reported meeting at least six times over the course of the term to do so. When asked how often they met with other faculty to discuss syllabi or assignments for their course, 60 percent reported doing so at least twice per term.[9] Similar patterns were evident in the faculty focus group discussions.

[8]For more detail on the faculty survey, see Visher, Schneider, Wathington, and Collado (2010).

[9]It is not known whether respondents were thinking of *any* faculty or just their learning community team members when they responded to this question. However, given the lower percentage of non-learning commu-

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According to the faculty development coordinator, one team met every two weeks or more often to fine-tune their already well-planned course. "In allied health, I call them triplets," she said. "They've been consistent and stayed together the longest, so the link of those courses works." On the other hand, the level of team interaction varied considerably across the learning communities. One team of instructors acknowledged that they rarely met after the required pre-semester planning session, and if they communicated at all it was mostly by e-mail. In some learning communities, the instructor of the integrated seminar was often "left out of the loop" completely.

Teaching in Learning Communities

Building on years of experience running learning communities, Kingsborough program leaders were committed to a model of learning communities that did far more than link courses, pair up teachers, and coenroll students. The program model incorporated strategies that were explicitly designed to promote learning and academic achievement primarily through two related instructional techniques: (1) teaching that deepens student mastery of material by emphasizing both connections between the curricula of different courses and connections between what the students read and discuss in class, their personal lives, and the world around them; and (2) teaching that encourages students to actively and collaboratively engage as learners rather than passively receive information from the teacher and textbooks (referred to by some as a "chalk and talk" teaching style). According to program leaders at Kingsborough as well as other proponents of learning communities, these two strategies can and should occur in stand-alone classes as well;[10] learning communities simply make intentional integrated teaching and active, collaborative learning easier because of the coenrollment of students and linking of carefully selected courses. Indeed, the Kingsborough approach to faculty support described above was motivated primarily by the need to encourage teachers to adopt these strategies.[11]

At Kingsborough, instructors were strongly urged to incorporate most or all of the following practices in their career-focused learning communities:

- Develop a single merged syllabus or syllabi that are synchronized and aligned.
- Define common learning outcomes.[12]

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nity faculty who reported spending this much time speaking with other faculty and the wording of the question about discussing syllabi and joint assignments, it seems reasonable to assume that many of these collaborative conversations occurred between learning community faculty team members.

[10]Tinto (1998); Smith, MacGregor, Matthews, and Gabelnick (2004); Malnarich (2003).

[11]Kingsborough is a national leader in this area and often provides technical assistance to instructors in other colleges to help them accomplish these goals.

[12]Measurement of student learning outcomes was beyond the scope of this study. Kingsborough, however, participates in a project conducted by the Washington Center for Teaching and Learning to assess the kind of (continued)

- Prepare joint assignments, including one long-term team project.
- Use common grading rubrics.
- Create a course theme illustrating the links between the courses.
- Use instructional strategies that emphasize active and collaborative learning such as team work, project-based learning, reflection, and discussion.
- Stress connections, including interdisciplinary connections, connections between the classroom and the "real world," and connections between education and future careers.
- Help students engage deeply in the material and foster higher-order thinking skills such as problem solving and critical thinking.

The ways in which the elements of this component of the model played out in the learning community classrooms varied, as it did in all the colleges in the Learning Communities Demonstration.[13] But the evidence from the survey and the focus groups as well as an analysis of a sample of syllabi from several learning communities suggest that at Kingsborough the use of these practices was relatively common. Nearly three out of four of the instructors who responded to the faculty survey reported that they made connections in their teaching to other courses that the students were taking. An even larger proportion disagreed with the statement, "Students learn best through lectures," and 86 percent agreed that "group work for students in the classroom is an effective teaching strategy." An analysis of a sample of 27 syllabi from sets for nine learning communities reinforced this observation. Using an index comprising practices that are often associated with learning communities, six sets received high scores, two sets scored in the middle range, and only one set scored low. Moreover, the proportion of high-scoring syllabi was considerably larger at Kingsborough than at the other five colleges in the demonstration, although that finding was likely driven at least in part by the practice of having the faculty development coordinator review each syllabus at the beginning of each semester.[14]

Similarly, informal observations of a few learning community classrooms revealed that at least in these classes and on those days, instructors were making an effort to integrate their

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higher-order cognitive skills that learning communities are designed to promote. The college is currently developing a tool to help instructors evaluate student work for evidence of growth in these areas.

[13]Visher, Schneider, Wathington, and Collado (2010).

[14]The syllabi were evaluated to assess the extent to which they included references to learning communities and practices that are commonly associated with learning communities, such as joint assignments and themed curriculum; a higher score reflects a greater number of references and thus a greater likelihood that the core components of learning communities were being implemented in those courses. For more detail on the syllabi analysis, see Visher, Schneider, Wathington, and Collado (2010).

material with the theme or with the material being taught in the other classes. For example, a psychology professor made frequent references to material being taught that week in the linked biology class, explained a common grading rubric that she and her team mates were using, and strongly encouraged active discussion and team work. One professor in another learning community kept a list of 10 concepts common to both courses, to which he referred regularly in his class. Another reminded her students that all three teachers in the learning community shared notes about who was in class and who was not on a given day, so that students who missed one class and not the other two were noticed.

Interestingly, integrated teaching got mixed reviews from students in focus groups. While most were well aware of the practice and could talk readily about the joint assignments in focus groups, not all found this approach interesting or valuable. A few students did not like group work or the practice of assigning one grade for the whole group, arguing that it was unfair to be graded down because of the poor performance of one or two students in the group.

Extra Support

The program model for career-focused learning communities in the Learning Communities Demonstration — unlike its predecessor, the Opening Doors Demonstration — did not include extra services or supports in its design, as is often the case with learning communities. Program planners contemplated incorporating a "case management" approach at the design stage, which would have entailed assigning a counselor or tutor to each learning community, but decided against this approach before the program began. The decision not to build in extra support made sense given the availability of a wide array of services for all students at Kingsborough. Over the course of the demonstration, the college invested in strengthening the support services that were already available to all students in the college and worked hard to tie services more closely to the classroom. In addition to a well-staffed advising office, services that were added in recent years included:

- A coordinator who focused on students who were at risk of failing their courses or dropping out
- A referral system to improve access to resources, such as advising, tutoring, or help getting financial aid
- An office that offers students assistance with tax preparation, legal aid services, and determining their eligibility for public benefits
- A food bank

- Additional or new staff for the Women's Center to address issues of domestic violence, a coordinator for the Male Resource Center, staff for veterans services, and a new director for Student Life

Students in focus groups generally reported that they were aware of such services and knew where to go for help. No strong differences were observed between students in the program group and students in the control group in the level of awareness or use of such services. In fact, the experiences of program group and control group students turned out to be remarkably similar in several ways, as the next section describes.

How the Experiences of the Program and Control Groups Differed

Program impacts are driven not only by fidelity of implementation but also by the quality and intensity of experiences and services that the control group receives. This raises the important question of whether students in the control group at Kingsborough experienced significantly different instructional strategies or less of a sense of belonging and community with fellow students than did the program group. If the experiences of the two groups were similar, then large impacts are less likely, all other things being equal.

When asked to comment on this question, some college leaders insisted that students in the career-focused learning communities had a fundamentally different experience from the experience of those who were enrolled in stand-alone classes. The pivotal difference, they pointed out, was the integrative seminar, which was offered only to program group students. They also reiterated that the learning communities were designed to facilitate a different kind of teaching and had different learning objectives.

Some evidence suggests that the control group's experiences may actually have been more similar to the program group's experiences in certain key respects than college leaders may have believed. Table 3.2 summarizes how the experiences of the two groups differed for each of the four components of the program. The evidence for these characterizations, however, is based mostly on qualitative data gathered from interviews and observations, and it is difficult to draw inferences based on such data. Nonetheless, some observations follow.

First, some of the control group students may have taken more than one class with the same students (even though those classes weren't part of a learning community), referred to as "de facto cohorting" in Table 3.2. This situation arose because, particularly for the less popular majors, there were so few stand-alone sections of the courses that were offered for the major that most students in the major found themselves taking the same classes together, although they were not part of a learning community. Many even traveled together from class to class

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Table 3.2

Characteristics of the Career-Focused Learning Communities Program and Regular College Services, Kingsborough Community College

KCC Career-Focused Learning Communities Report

Characteristic	Learning Communities Program	Regular College Services
Linked courses and coenrollment	• Groups of between 8 and 25 students in the same major were coenrolled in three linked classes. • Average class size: 15.	• Students enrolled in any class they wanted but for some majors control students may have experienced "de facto cohorting" in that the same students tended to enroll in the same courses required for the major. • Average class size: 26.
Faculty collaboration and support	• Strong examples of collaboration among a few experienced instructor teams. • Faculty Development Coordinator reviewed all syllabi. • Instructors were offered professional development.	• Instructors occasionally collaborated with each other. • Instructors were offered professional development.
Integrated and active learning	• Emphasis on career exploration integrated with academic instruction; opportunity to enroll in the Integrative Seminar. • Heavy emphasis on integration and active, collaborative learning, particularly in learning communities taught by experienced faculty pairs.	• Many instructors reported using integrated teaching and active, collaborative teaching strategies.
Extra student support	• Access to regular campus services. No additional counselors, tutors, or advisers offered.	• Access to regular campus services. No additional counselors, tutors, or advisers offered.

SOURCE: MDRC field research.

since, during the last year of the study, Kingsborough instituted a policy that resulted in back-to-back scheduling of classes that were required for certain majors.[15]

Second, some control group students may have been exposed to some of the same instructional strategies as their fellow students who were enrolled in the learning communities. In particular, the evidence suggests that one such strategy, teaching that tries to engage students as active, collaborative learners, was quite prevalent in stand-alone versions of the classes in the learning communities. But even the defining feature of instruction in learning communities, teaching that emphasizes the connections between disciplines and between academic material and students' personal lives, appears to have been used in at last some courses outside the learning communities, according to interviews with students and instructors in stand-alone classes. A few Kingsborough faculty who were teaching stand-alone classes during the demonstration had taught in learning communities in the past and reportedly used these techniques in their regular classes. All had access to training where these strategies were taught. But the most probable reason was that many of the learning community instructors actually taught a number of stand-alone sections of the courses offered in the same semester in which at least some control group members were enrolled.

When asked whether learning community pedagogies were ever used in stand-alone classes, the faculty development coordinator replied:

> Yes. First of all, those pedagogies are good, not only for students in LCs: active learning, collaborative learning . . . you can't think all other classes are all "chalk and talk." In the Kingsborough Center for Teaching and Learning, we're teaching those pedagogies for all faculty whether they're teaching LC or not LC.

Moreover, control group students and program group students often had the same instructors, albeit in different classes. Throughout the course of the demonstration at Kingsborough, 19 of the 26 learning communities instructors (not counting those who taught integrative seminars) taught at least one stand-alone section of the courses they had taught in the learning communities. For example, an anthropology instructor in the mental health learning community taught two of the six stand-alone sections of the same anthropology course in spring 2009, in addition to the section in the learning community. Six of the 26 learning communities instructors taught more than half of the stand-alone sections of their courses in a single semester. In fact, two instructors taught all the available sections of their courses in a single semester — both as part of the learning community link and as stand-alone versions.

[15]Unfortunately, this phenomenon of de facto cohorting cannot be quantified. To do so would have required information about course-taking not only by control group students but also by students who were not enrolled in the study — a task that went well beyond the scope of this project.

Finally, as mentioned above, according to interviews with students and student services staff, student access to and participation in advising and other student services appeared to be similar for the program and control groups. Students in the program group were no more likely to say that they had visited an adviser or sought help from an instructor than were control group students. Faculty who did not teach in a learning community reported that they were often in touch with student services staff about individual students and to get help encouraging students to come to class or to access tutoring. This is not surprising given that the college intentionally instituted policies to encourage more communication between instructors and student services staff.

Summary

The Career-Focused Learning Communities program at Kingsborough was, by design, an ambitious and sophisticated learning community model, with its heavy emphasis on two components — faculty collaboration and changing the way teaching and learning occurs in the classroom. To add to the challenges inherent in implementing such a model, both the links and the target group were new for the college. And yet the college still managed to run 32 learning communities in eight different majors in which 537 continuing students were enrolled. Nearly 40 instructors were recruited, matched up in teams of three, and were offered an unusual amount of training and support to prepare them for teaching in learning communities. The administration's extraordinary support for the program never wavered despite pressures on the institution such as budget cuts and soaring enrollments in the last year. By these measures, the program was implemented successfully.

But from the outset, program implementation was beset by many challenges, some of which were start-up problems typical of any new program and others that would prove difficult for even the most seasoned and stable of learning community practitioners. Underenrollment is often a problem for colleges trying to scale up learning community programs, and Kingsborough was no exception. Leaders struggled to fill the learning communities with enough students, having overestimated the number of students who would declare a major that was served by the learning communities, the number of students who needed both courses in the link, or the number of students who would volunteer to enroll in a learning community when given the choice. The college worked tirelessly and creatively to increase enrollment by dropping and adding learning communities, changing the links, and performing aggressive outreach to potential study participants. But in the end these changes meant that the program never really reached a state of equilibrium, with the result that some learning communities fell short of full implementation.

Chapter 4

Program Impacts on Educational Outcomes

A key goal of learning communities is to increase students' educational achievement. This chapter focuses on the impacts of career-focused learning communities on academic outcomes for two semesters after students enrolled in the Learning Communities Demonstration at Kingsborough Community College. Academic outcomes are measured using transcript data collected for students starting in the semester they were randomly assigned and, in the case of the program group, had the opportunity to participate in a career-focused learning community or, in the case of the control group, had the opportunity to receive the standard instruction and academic services offered by the college.

Key Impact Findings

- **The learning communities program did not have meaningful impacts on measured educational outcomes during the semester in which students enrolled in the learning community (the "program semester").** There were no statistically significant differences between program and control group students with respect to their enrollment rates or credit accumulation in the program semester — that is, any differences that showed up were likely a product of chance, not the learning communities program.[1]

- **The learning communities' program did not have meaningful impacts on any measured educational outcomes following the program semester (the "postprogram semesters").** For example, in the first postprogram semester, 76 percent of program group students and 74 percent of control group students registered for at least one course. This 2 percentage point difference is not statistically significant.

As described more fully in Box 4.1, the tables presented in this chapter show average outcomes for the students who were assigned to the program group and the control group, the difference between the two groups' averages (which represents the estimated impact of the program), the standard error of the difference,[2] and the statistical significance of the difference.

[1] See Box 4.1 for a detailed explanation of statistical significance.

[2] The average outcomes are adjusted for each student's random assignment cohort, as well as their declared major at baseline. Weights are applied to adjust for the change in random assignment ratio that occurred during the enrollment of the first cohort of students. No other covariates are included.

Box 4.1

How to Read the Impact Tables in This Report

Most tables in this report use a similar format. The abbreviated table below displays transcript data and shows some educational outcomes for the program group and the control group. The first row, for example, shows that program group members attempted an average of 14.8 credits in the program semester and control group members attempted an average of 14.1 credits.

Because individuals were assigned randomly either to the program group or to the control group, the *impacts* of the program can be estimated by the difference in outcomes between the two groups. The "Difference" column in the table shows the differences between the two research groups' outcomes — that is, the program's estimated impacts on the outcomes. For example, the estimated impact on credits attempted in the program semester can be calculated by subtracting 14.1 credits from 14.8 credits, yielding an increase or estimated impact of 0.7 credit. Thus, the term *impact* refers to the "added value" of the program, or the program's effects that go above and beyond the effects of the services provided to the control group. This difference represents the *estimated* impact rather than the *true* impact because, although study participants are randomly assigned to the program and control groups, there is still a possibility that differences could be observed by chance.

Differences marked with one or more asterisks are *statistically significant*, meaning that there is a high probability that the program had an impact (positive or negative) on student outcomes. The number of asterisks indicates the probability that impacts would show up to the same extent (that is, by chance) even if, in reality, the program had no impact. One asterisk corresponds to a 10 percent probability; two asterisks, a 5 percent probability; and three asterisks, a 1 percent probability. The more asterisks, the more likely the program had an impact on student outcomes. For example, as the first row of the table excerpt shows, the program's estimated impact on attempted credits in the program semester is 0.7 credit. The one asterisk indicates that this difference is statistically significant at the 10 percent level, meaning that there is a 10 percent chance of observing a difference this large, even if the program actually had no effect on students' attempted credits. In other words, there is a 90 percent level of confidence that the program had a positive impact on the average number of credits that students attempted.

The statistical significance is calculated using the standard error of the impact estimate, shown in the last column. The standard error is a measure of uncertainty or variability around the impact estimate. Some useful rules of thumb are that there is about a 90 percent chance that the true impact is within plus or minus 1.65 standard errors of the estimated impact, roughly a 95 percent chance that the true impact is within plus or minus 1.96 standard errors of the estimated impact, and about a 99 percent chance that the true impact is within plus or minus 2.58 standard errors of the estimated impact. For example, in the first row of data below, there is roughly a 95 percent chance that the program's impact on students' average attempted credits lies between -0.08 and 1.48 credits, calculated as $0.7 \pm (1.96 \times 0.4)$.

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Program Semester				
Number of credits attempted	14.8	14.1	0.7 *	0.4
Number of credits earned	11.6	10.8	0.8 *	0.5

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

This chapter begins with an overview of the academic outcomes that were examined in the study. A discussion of the program's impact on these academic outcomes during the program semesters follows; next, the impact on academic outcomes during the postprogram semester is presented. Finally, the program's impacts for some select subgroups are discussed.

Selected Academic Outcomes

The measures of academic progress that are examined in this report reflect those that are commonly viewed as important outcomes in the context of community colleges and postsecondary education research. The number of primary, or confirmatory, outcomes is limited in order to reduce the likelihood of observing relationships that arise solely by chance.[3] Primary indicators of student academic progress include:

- **Credits earned.** In order to receive an associate's degree from Kingsborough, a student must earn at least 60 credits.[4] The number of credits earned is therefore a key indicator of a student's progress toward earning a degree.

- **Persistence (as measured by continued registration).** As described in Chapter 1, one of the primary goals of learning communities programs is to provide a more engaging educational experience and a stronger sense of belonging and community for students, both of which are believed to increase students' likelihood of persisting in school. As such, an important indicator of the success of learning communities is whether students continued to enroll in school from one semester to the next. Persistence is also necessary to achieve a credential.

- **Graduation.** The Career-Focused Learning Communities program at Kingsborough targeted continuing students who were further along in their studies than the developmental education students targeted by the other colleges in the Learning Communities Demonstration. For that reason, the program may be more likely to increase the rate at which students accrue college credits and in turn expedite degree completion.

[3]Schochet (2008). For each individual statistical test that was conducted for this report, the chance of detecting a spurious relationship is around 10 percent. The more tests that are conducted, the more likely that at least one test will yield a spurious relationship. As a result, it is advisable to focus analyses on a limited number of primary outcomes.

[4]Kingsborough offers a number of certificate programs as well, though not as terminal degrees in the majors that are included in the Career-Focused Learning Communities program.

Research Methods

The analyses that are presented throughout this chapter are "intent-to-treat" analyses, meaning that comparisons are made between those who were randomly assigned to the program and control groups, regardless of whether they actually participated in the learning communities program or, for the control group, in regular classes and services. The program group thus includes some students who did not actually take part in the Career-Focused Learning Communities program even though they were randomly assigned to it; similarly, the control group includes students who "crossed over" and were able to enroll in learning communities. To retain the integrity of the experiment, outcomes for the entire program group are compared with outcomes for the entire control group, since students who elected not to participate in the career-focused learning communities despite the offer may differ from students who did choose to participate.[5]

Furthermore, this comparison more accurately reflects the experience of operating learning communities at scale in the real world, because college students do not always follow through with their plans: they drop courses, change majors, and occasionally take time away from school for personal or financial reasons. As seen in Table 4.1, the majority (83.6 percent) of students who were assigned to participate in a learning community enrolled in one. Somewhat surprisingly, a number of students who were assigned to the control group (4.6 percent) enrolled in a learning community at some point during the course of the study. As a result of low enrollments, courses in the learning communities links were opened to students who were not part of the research sample, and relaxing the criteria around enrollment in the linked courses may have resulted in some students "crossing over" from the program group to the control group or vice versa.

Results for the Full Sample

Program Semester

Academic outcomes from the program semester are shown in Table 4.1. Students in the program and control groups registered at similar rates in this semester (94.2 and 92.0 percent, respectively).[6] Students in the program group attempted an average of about one credit more than the students in the control group, though this difference is driven entirely by the program group students taking an additional one-credit integrative seminar as part of the career-focused learning

[5]For a detailed description of intent-to-treat analyses, see Bloom (2006).

[6]Registration rates presented in Table 4.1 (and throughout this report) reflect the percentage of students who were enrolled in at least one course at the end of the add/drop deadline. The add/drop deadline generally occurs around one week after classes begin and reflects the deadline for students to drop or add a class without penalty.

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Table 4.1

Transcript Outcomes for Sample Members, Program Semester

KCC Career-Focused Learning Communities Report

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Registered for any courses (%)	94.2	92.0	2.2	2.0
Enrolled in a learning community (%)	83.6	4.6	79.0 ***	2.8
Number of credits attempted				
Including the integrative seminar	14.8	14.1	0.7 *	0.4
Excluding the integrative seminar	14.0	14.0	0.0	0.4
Number of credits earned				
Including the integrative seminar	11.6	10.8	0.8 *	0.5
Excluding the integrative seminar	10.9	10.8	0.1	0.5
Passed all courses (%)	48.0	45.4	2.6	3.4
Withdrew from all courses (%)	4.9	5.6	-0.7	1.4
Sample size (total = 917)	537	380		

SOURCE: MDRC calculations from Kingsborough 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 declared major at baseline.

Sample members are stratified by declared major at baseline. The probability of being assigned to the treatment group varies within cohorts, and estimates are weighted to account for the different random assignment ratios.

communities curriculum. When the seminar is excluded from measures of credits attempted, there are no differences in credits attempted between the program and control groups. Given the constraints that students have on time available to take courses, as well as financial considerations, it might not be reasonable to assume that many students who were assigned to the program group would take additional classes beyond those that were required for the program.

The theory of change behind learning communities predicts that students will find the integrated instructional approach more engaging than standard teaching approaches and will experience stronger social and academic networks as a result of taking several classes together, leading them to feel a greater sense of belonging in the academic community.[7] The theory of change also predicts that by participating in the program, students will pass more of their clas-

[7]Tinto (1975); Tinto (1997); Tinto (1998); Engstrom and Tinto (2008); Malnarich (2003); Visher, Schneider, Wathington, and Collado (2010).

ses, and thus earn more credits, as a result of their experiences in learning communities. As shown in Table 4.1, during the program semester, program group students earned an average of 11.6 credits and control group students earned an average of 10.8 credits; however, like the difference in the number of credits *attempted,* the number of credits *earned* is virtually identical for program and control group students when the integrative seminar is excluded. While the credit earned in the integrative seminar does count toward graduation requirements as an elective, it does not fulfill any requirements for the students' majors. Particularly given students' generally negative impression of the integrative seminar, discussed in Chapter 3, these findings suggest that students' overall patterns of credit accumulation were not affected by the learning communities program in a meaningful way. Students' grade point average (GPA) in the program semester was not considered to be a good indicator of program success because the program promoted an approach to teaching and learning that differed from the norm, and the grades that students in learning communities receive may not be comparable with grades received by students taking stand-alone courses.

First Postprogram Semester

During the first postprogram semester, 75.7 percent of all program group students were registered for at least one course as of the deadline for adding or dropping courses, compared with 74.0 percent of all control group students, as shown in Table 4.2. This 1.7 percentage point difference is not statistically significant, which suggests that the learning communities program did not have any meaningful impact on students' likelihood of persisting in school.

In addition, program and control group students continued to attempt and accumulate credits at similar rates in the first postprogram semester, indicating that the Career-Focused Learning Communities program did not have a meaningful impact on credit accumulation after the program ended.

Cumulative Outcomes

Cumulative academic outcomes for the combined program and first postprogram semesters are presented in Table 4.3. These results underscore the findings that are presented in Tables 4.1 and 4.2: the opportunity to participate in the Career-Focused Learning Communities program did not have any meaningful impact on students' academic outcomes. Moreover, the one-credit advantage that the program group students had in terms of credit accumulation disappeared by the end of the first postprogram semester. Relatively few students earned a postsecondary credential during the follow-up period; therefore, the effects of learning communities on graduation rates may be better determined with longer follow-up.

The Learning Communities Demonstration

Table 4.2

Transcript Outcomes for Sample Members, First Postprogram Semester

KCC Career-Focused Learning Communities Report

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Registered for any courses (%)	75.7	74.0	1.7	2.9
Number of credits attempted	11.2	11.2	-0.1	0.5
Number of credits earned	8.3	8.7	-0.4	0.5
Passed all courses (%)	34.4	34.1	0.3	3.0
Withdrew from all courses (%)	5.0	4.3	0.7	1.3
Term GPA (%)				
2.0 to 4.0 (C and above)	51.5	52.9	-1.4	3.3
0 to 1.9 (below C)	21.6	19.8	1.7	2.5
No GPA[a]	26.9	27.2	-0.3	2.9
Graduated in first postprogram semester (%)	2.4	1.3	1.1	0.8
Sample size (total = 917)	537	380		

SOURCE: MDRC calculations from Kingsborough 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 declared major at baseline.

Sample members are stratified by declared major at baseline. The probability of being assigned to the treatment group varies within cohorts, and estimates are weighted to account for the different random assignment ratios.

[a]The "No GPA" category includes students who did not enroll and students who took only developmental courses, which are not included in GPA calculations.

Subgroup Analyses

Although the career-focused learning communities did not appear to have any statistically significant effects on the measured outcomes for students overall, it is possible that the program was helpful for certain types of students. Impacts on educational outcomes for various subgroups of students, defined using characteristics that are measured at or before the onset of the study, were examined for differences in the effect of the Career-Focused Learning Communities program.[8]

[8]See Visher, Wathington, Richburg-Hayes, and Schneider (2008).

The Learning Communities Demonstration

Table 4.3

Cumulative Transcript Outcomes for Sample Members, Program Semester Through First Postprogram Semester

KCC Career-Focused Learning Communities Report

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Number of semesters registered	1.7	1.7	0.0	0.0
Enrolled in a learning community (%)	83.7	4.6	79.2 ***	2.7
Number of credits attempted	26.0	25.3	0.7	0.8
Number of credits earned	20.0	19.5	0.5	0.9
Term GPA (%)				
2.0 to 4.0 (C and above)	65.7	62.5	3.3	3.2
0 to 1.9 (below C)	28.3	29.2	-0.9	2.9
No GPA[a]	6.0	8.4	-2.4	2.0
Sample size (total = 917)	537	380		

SOURCE: MDRC calculations from Kingsborough 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 declared major at baseline.

Sample members are stratified by declared major at baseline. The probability of being assigned to the treatment group varies within cohorts, and estimates are weighted to account for the different random assignment ratios.

[a]The "No GPA" category includes students who did not enroll and students who took only developmental courses, which are not included in GPA calculations.

Past research on learning communities included exploratory analyses of the differential effectiveness of learning communities based on gender, and suggested that the learning communities programs might have greater impacts on persistence for men or women.[9] In light of these findings on gender subgroups from the Opening Doors Demonstration at Kingsborough, and because other community college outcomes differ by gender, analyses were conducted to determine whether the career-focused learning communities at Kingsborough had a differential impact by gender. While statistically significant differences were detected indicating that women who were randomly assigned to the career-focused learning communities passed all their courses at a higher rate in the program semester and withdrew from all their courses at a higher

[9]Scrivener et al. (2008).

rate in the first postprogram semester, in neither case did these differences lead to an impact on credits earned. (See Appendix Table A.1.)

The career-focused learning communities were designed in part to determine whether the positive impacts of single-semester learning communities that were observed in the Opening Doors Demonstration could be enhanced by a second semester of participation in a learning community. Running year-long learning communities where the same group of students takes all their classes together for two consecutive semesters is rare in community colleges because of the logistical challenges of scheduling. An alternative — tried at Kingsborough with the career-focused learning communities — is to offer students an opportunity to extend the experience over time by enrolling in a second learning community during their second (or sometimes third) semester. An analysis was conducted to determine whether the career-focused learning communities at Kingsborough had a different impact on students with prior learning community experience. This analysis did not find statistically significant differences between the students with previous learning community experience and students who were enrolling in learning communities for the first time. (See Appendix Table A.2.)

Finally, the theory of change for learning communities suggests that the program may be the most beneficial to students who are new to the campus and the most in need of a connection to the college and their classmates[10] — in the case of the career-focused learning communities study, the transfer students. Given that the transfer student population was new to Kingsborough and thus unfamiliar with the campus, an analysis was conducted to determine whether students who had transferred to Kingsborough benefited more from the program than students who were returning to Kingsborough after having spent the previous semester there.

Transfer students who were assigned to participate in the career-focused learning communities were more likely to enroll in a learning community than were returning students. Transfer students in the program group also earned an additional two credits compared with transfer students in the control group; this finding remains statistically significant even if the integrative seminar is not counted toward credit accumulation. (See Appendix Table A.3.) In this case, increased participation may have led to increased credit accumulation. There were no differences in the postprogram semester, and the difference in cumulative credits earned is not statistically significant, but, as discussed in Chapter 1, these findings are consistent with those of the other learning communities sites in the demonstration where in-program effects tend to fade after the first postprogram semester.

[10]For the theory of change for learning communities, see Visher, Schneider, Wathington, and Collado (2010).

Summary

Learning communities at Kingsborough did not produce meaningful impacts on academic outcomes in either the program or postprogram semester. A longer follow-up period is necessary to more effectively determine any impacts that the Career-Focused Learning Communities program may have on graduation rates. There is some evidence that incoming transfer students benefit from the learning communities program in a way that is consistent with outcomes observed for incoming freshmen at some other colleges.

As discussed in the next chapter, the general lack of impacts that is reported here may have been caused by a number of factors, including the nature of the target group, lack of a sharp contrast between the experiences of the program and control groups, and program implementation problems caused by difficulties meeting enrollment goals for the learning communities.

Chapter 5

Conclusions

Kingsborough Community College's learning communities model was the most advanced of the programs tested in the Learning Communities Demonstration because of its emphasis on close collaboration of the instructor teams and transforming teaching and learning in the classroom. It was also distinct in several additional ways from the other colleges in the Learning Communities Demonstration: Kingsborough was the only college in the demonstration to link only college-level courses — with credits that counted toward a degree — rather than one or more developmental courses, and to target students who had advanced further in their studies. Kingsborough was the only one to include strategies that were explicitly intended to help students make better and more informed decisions about their future careers. The other colleges were focused on getting students through their developmental education sequence to prepare them for college-level courses. It was also the only college in the demonstration to devote a course in the learning communities to reinforcing the integrated learning in the other two courses while building in assignments and activities to help students make more informed decisions about career options.

Despite the sophistication of the model, or perhaps because of it, the main finding of this study is that — at least for the outcomes measured during the study period reported here — the career-focused learning communities on average made no meaningful difference for the outcomes measured: credit accumulation, passing courses, and semester-to-semester persistence, compared with the standard classes and services that the college offered.

While the program had no meaningful impact on average, one subgroup of students did appear to benefit, albeit modestly, from the learning communities. Compared with both returning Kingsborough students and their fellow transfer students in the control group, program group students who had recently transferred from another college and enrolled at Kingsborough earned, on average, 2 more credits than they would have had they not had the opportunity to enroll in a learning community. This finding is consistent with the theory of learning communities, which posits that students who are new to campus and are not connected with other students and instructors will benefit from the learning community experience. The returning students as well as the transfer students in the control group caught up with the transfer students who had experienced the learning communities by the first postprogram semester — a pattern that is emerging in nearly all the rigorous evaluations of learning communities.[1]

[1]Bloom and Sommo (2005); Weiss, Visher, and Wathington (2010); Weissman et al. (2011).

Given these results, it would be reasonable to conclude that career-focused learning communities simply fall short of meeting the expected positive outcomes. Before coming to such a conclusion, however, several extenuating circumstances surrounding the specific context of the program at Kingsborough and a limitation of the study design should be considered.

- **A number of unanticipated circumstances — most notably, difficulty getting enough students to participate in the study — led to a program that was constantly in flux.**

As detailed in previous reports from the Learning Communities Demonstration, all six participating colleges faced significant challenges in implementing and scaling up their programs, even those with designs that were more basic and presumably easier to implement than Kingsborough's. At Kingsborough, it took time for program leaders to figure out which majors had enough students to fill the learning communities and which combinations of courses were needed by enough students to satisfy requirements for the majors. As one college leader put it, it was a continuous process of "trial and error" for most of the five semesters during which the program ran. Other elements of the model that were new for the college, such as the integrative seminar and career exploration activities, were particularly challenging. The biggest challenge, however, turned out to be simply getting enough students to enroll in the study, a challenge that was undoubtedly exacerbated by the need to not only fill the learning communities but also to recruit enough students for the control group. Although the college came close to meeting the overall target in the end, it struggled each semester to fill most of the learning communities. New links were tried, chronically underenrolled links were abandoned, and faculty who were new to learning communities had to be recruited each semester. Despite the energetic and creative efforts of the college, many learning communities ran with smaller-than-intended enrollment, inexperienced faculty, or both.

- **Adding value is difficult in a setting where student needs are already well served.**

Kingsborough has worked hard for years to create a positive learning environment for all its students, whether they are in learning communities or not. As discussed in Chapter 3, the college has invested heavily in improving the quality of teaching as well as counseling, advising, and other services to help students make good progress toward their educational and career goals. All students, whether in learning communities or not, have access to relatively generous support both inside and outside the classroom. The college intentionally encourages high-quality instructional practices throughout the institution. Professional development events are open to all instructors, whether they teach in learning communities or not. To encourage students to form stronger ties with each other, the college scheduled stand-alone courses that were required for several majors (including some in the career-focused learning

communities) back-to-back so that students could talk with each other more readily as they moved from class to class.

These and other practices meant that the control group had experiences with or access to key forms of support and teaching that were not only similar to that of the program group but were also part of an educational experience that is generally more positive and of higher quality than at many community colleges. In a setting like this, it becomes much harder for any intervention to add value and produce significantly better outcomes than "business as usual."

- **The study did not measure some outcomes that the Kingsborough model was designed to improve.**

Just as the college created one of the most ambitious models in the Learning Communities Demonstration, it also set ambitious goals for what it hoped to achieve with the career-focused learning communities. The study was designed to measure a small number of critical academic outcomes such as accumulating credits, persisting from semester to semester, and earning credentials. While it was hoped that the program would make a difference in those outcomes, the college considered other outcomes to be just as important or even more so. Unfortunately, resources did not permit measurement of those other outcomes, which included learning outcomes, career awareness, and institutional transformation, discussed below.

More so than any other program in the demonstration, the Kingsborough model was designed to change how students think and learn and how they make decisions about their careers. As described earlier, the college worked hard to reinforce instructional strategies that helped students engage more intensively with the material, think critically about both academic and social issues, develop problem-solving and other higher-order thinking skills, and work collaboratively with each other. Kingsborough cares deeply about these outcomes and has undertaken its own research to try to measure them.

A second explicit goal of the career-focused learning communities was to shorten the time that students spend settling on a major, by offering experiences both inside and outside the classroom that would inform and solidify their decisions about their educational and career goals. While the study measures the percentage of program and control group students who earn a credential — a rough proxy for choosing a major (although that was less of a focus in this report because of the short follow-up period) — it was beyond the scope of the study to measure other outcomes such as awareness of the types of occupations that are associated with specific majors.

Finally, Kingsborough views learning communities as a way to bring about not only better outcomes for its students, but also institutional improvement. When scaled up, learning communities, the college's leaders often argue, can help to transform the culture of a college by

focusing attention on the needs of students and on instructional quality. It was also not possible to measure those sorts of changes in this study.

To conclude, the results of this latest random assignment evaluation of a learning communities program may be disappointing for community colleges that are hoping to substantially improve the outcomes for large numbers of students with this approach. However, pieces of the story remain to be told. Findings from the evaluations of the two remaining learning communities programs at Merced College and The Community College of Baltimore County, both of which targeted students in need of developmental English, are still forthcoming. Longer follow-up of the students in the study at Kingsborough and the other colleges will be conducted and reported in the final report for the demonstration in 2012. Nonetheless, with five rigorous evaluations of this model now close to complete, the evidence is mounting that single-semester learning communities alone may not be enough to overcome the multiple barriers that many students face in achieving their education and career objectives.

Appendix A

Supplementary Tables

The Learning Communities Demonstration

Appendix Table A.1

Transcript Outcomes for Sample Members, by Gender

KCC Career-Focused Learning Communities Report

Outcome	Males				Females				Difference Between Subgroups
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error	
Program semester									
Registered for any courses (%)	94.1	94.3	-0.2	2.9	94.4	90.3	4.0	2.7	
Enrolled in a learning community (%)	86.7	5.1	81.6 ***	3.8	81.5	4.1	77.4 ***	3.4	
Number of credits attempted									
Including the integrative seminar	14.8	13.8	1.0	0.6	14.9	14.2	0.6	0.6	
Excluding the integrative seminar	13.9	13.8	0.1	0.6	14.0	14.2	-0.1	0.6	
Number of credits earned									
Including the integrative seminar	10.7	10.2	0.5	0.7	12.3	11.3	1.0	0.6	
Excluding the integrative seminar	10.0	10.1	-0.1	0.7	11.6	11.3	0.3	0.6	
Passed all courses (%)	37.3	44.2	-6.9	5.0	55.2	46.3	8.9 **	4.4	††
Withdrew from all courses (%)	7.4	8.2	-0.8	2.7	3.1	3.6	-0.5	1.7	
First postprogram semester									
Registered for any courses (%)	70.6	70.2	0.4	4.5	79.6	76.6	3.0	3.7	
Number of credits attempted	10.6	10.8	-0.3	0.8	11.6	11.5	0.2	0.7	
Number of credits earned	7.7	8.2	-0.5	0.7	8.8	9.0	-0.2	0.6	
Passed all courses (%)	30.9	27.5	3.4	4.2	37.5	38.1	-0.7	4.1	
Withdrew from all courses (%)	4.0	6.6	-2.6	2.2	5.6	2.8	2.8 *	1.5	††
Term GPA (%)									
2.0 to 4.0 (C and above)	43.4	48.6	-5.2	5.3	57.2	55.7	1.4	4.4	
0 to 1.9 (below C)	26.2	19.7	6.4	4.2	18.7	20.0	-1.3	3.3	
No GPA[a]	30.4	31.6	-1.2	4.6	24.2	24.3	-0.1	3.8	
Graduated in first postprogram semester (%)	1.8	1.4	0.4	1.1	2.8	1.3	1.5	1.1	

(continued)

Appendix Table A.1 (continued)

Outcome	Males				Females				Difference Between Subgroups
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error	
Cumulative through first postprogram semester									
Number of semesters registered	1.6	1.6	0.0	0.1	1.7	1.7	0.1	0.1	
Enrolled in a learning community (%)	87.0	5.1	81.9 ***	3.8	81.5	4.1	77.4 ***	3.4	
Number of credits attempted	25.3	24.7	0.7	1.2	26.5	25.7	0.8	1.1	
Number of credits earned	18.4	18.3	0.1	1.3	21.1	20.3	0.8	1.1	
Term GPA (%)									
2.0 to 4.0 (C and above)	55.2	57.8	-2.7	4.7	72.9	65.6	7.4 *	4.3	
0 to 1.9 (below C)	38.6	34.5	4.1	4.8	21.4	25.3	-3.9	3.8	
No GPA[a]	6.3	7.7	-1.4	3.1	5.7	9.1	-3.4	2.6	
Graduated by end of first postprogram semester (%)	1.7	2.1	-0.4	1.2	3.4	1.3	2.0 *	1.1	
Sample size (total = 917)	216	160			321	220			

SOURCE: MDRC calculations from Kingsborough 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.

A two-tailed t-test was applied to differences of impacts between subgroups. Statistical significance levels are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The probability of being assigned to the treatment group varies within random assignment cohorts, and estimates are weighted to account for the different random assignment ratios. Standard errors are clustered by learning community link.

Estimates are adjusted by cohort and declared major at baseline.

[a]The "No GPA" category includes students who did not enroll and students who took only developmental courses, which are not included in GPA calculations.

The Learning Communities Demonstration

Appendix Table A.2

Transcript Outcomes for Sample Members, by Learning Community Enrollment

KCC Career-Focused Learning Communities Report

Outcome	Ever in Learning Community: Program Group	Ever in Learning Community: Control Group	Ever in Learning Community: Difference (Impact)	Ever in Learning Community: Standard Error	Never in Learning Community: Program Group	Never in Learning Community: Control Group	Never in Learning Community: Difference (Impact)	Never in Learning Community: Standard Error	Difference Between Subgroups
Program semester									
Registered for any courses (%)	92.7	89.3	3.4	4.6	94.8	92.6	2.2	2.3	
Enrolled in a learning community (%)	80.3	5.1	75.2 ***	5.7	84.5	4.7	79.8 ***	2.9	
Number of credits attempted									
Including the integrative seminar	14.4	14.3	0.1	0.9	14.9	13.9	1.1 **	0.5	
Excluding the integrative seminar	13.6	14.3	-0.7	0.9	14.1	13.8	0.2	0.5	
Number of credits earned									
Including the integrative seminar	11.1	11.0	0.1	0.9	11.9	10.7	1.2 **	0.5	
Excluding the integrative seminar	10.4	11.0	-0.5	0.9	11.1	10.6	0.5	0.5	
Passed all courses (%)	44.1	45.5	-1.4	6.0	50.1	45.1	5.0	4.1	
Withdrew from all courses (%)	5.0	4.9	0.1	2.5	5.0	6.2	-1.3	1.8	
First postprogram semester									
Registered for any courses (%)	76.3	69.0	7.2	6.3	75.7	74.9	0.8	3.4	
Number of credits attempted	12.0	11.6	0.4	1.2	11.0	10.9	0.1	0.6	
Number of credits earned	8.7	8.8	-0.1	1.0	8.4	8.5	-0.1	0.6	
Passed all courses (%)	33.8	26.1	7.7	6.2	35.9	37.7	-1.8	3.5	
Withdrew from all courses (%)	4.7	4.7	0.0	2.5	4.1	4.5	-0.5	1.5	
Term GPA (%)									
2.0 to 4.0 (C and above)	54.9	53.4	1.6	6.5	50.8	51.3	-0.5	3.9	
0 to 1.9 (below C)	20.6	15.7	4.9	4.7	22.6	21.9	0.7	3.0	
No GPA[a]	24.5	30.9	-6.5	6.3	26.6	26.8	-0.2	3.4	
Graduated in first postprogram semester (%)	0.8	-0.1	0.9	1.0	3.3	1.3	2.0 *	1.1	

(continued)

Appendix Table A.2 (continued)

Outcome	Ever in Learning Community: Program Group	Ever in Learning Community: Control Group	Ever in Learning Community: Difference (Impact)	Ever in Learning Community: Standard Error	Never in Learning Community: Program Group	Never in Learning Community: Control Group	Never in Learning Community: Difference (Impact)	Never in Learning Community: Standard Error	Difference Between Subgroups
Cumulative through first postprogram semester									
Number of semesters registered	1.7	1.6	0.1	0.1	1.7	1.7	0.0	0.0	
Enrolled in a learning community (%)	80.3	5.1	75.2 ***	5.7	84.7	4.7	80.0 ***	2.9	
Number of credits attempted	26.4	25.9	0.5	1.9	25.9	24.7	1.2	1.0	
Number of credits earned	19.9	19.8	0.0	1.8	20.2	19.2	1.1	1.0	
Term GPA (%)									
2.0 to 4.0 (C and above)	64.9	62.0	3.0	6.2	65.7	62.1	3.6	4.0	
0 to 1.9 (below C)	28.7	24.1	4.6	5.7	28.4	30.8	-2.4	3.7	
No GPA[a]	6.4	13.9	-7.5	4.7	5.9	7.1	-1.2	2.3	
Graduated by end of first postprogram semester (%)	1.6	-0.1	1.7	1.1	3.5	1.7	1.9 *	1.1	
Sample size (total = 866)	132	94			374	266			

SOURCE: MDRC calculations from Kingsborough 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.

A two-tailed t-test was applied to differences of impacts between subgroups. Statistical significance levels are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The probability of being assigned to the treatment group varies within random assignment cohorts, and estimates are weighted to account for the different random assignment ratios. Standard errors are clustered by learning community link.

Estimates are adjusted by cohort and declared major at baseline.

[a]The "No GPA" category includes students who did not enroll and students who took only developmental courses, which are not included in GPA calculations.

The Learning Communities Demonstration

Appendix Table A.3

Transcript Outcomes for Sample Members, by Transfer Status

KCC Career-Focused Learning Communities Report

Outcome	Transfer Students				Returning Students				Difference Between Subgroups
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error	
Program semester									
Registered for any courses (%)	99.1	95.4	3.8 *	2.1	91.6	90.1	1.5	2.8	
Enrolled in a learning community (%)	93.2	4.8	88.4 ***	3.2	78.1	4.3	73.8 ***	3.7	†††
Number of credits attempted									
Including the integrative seminar	15.3	13.9	1.4 **	0.5	14.6	14.1	0.5	0.6	
Excluding the integrative seminar	14.4	13.9	0.5	0.5	13.8	14.0	-0.2	0.6	
Number of credits earned									
Including the integrative seminar	12.7	10.6	2.1 ***	0.7	11.1	10.9	0.2	0.6	††
Excluding the integrative seminar	11.8	10.5	1.3 **	0.7	10.4	10.9	-0.4	0.6	††
Passed all courses (%)	58.3	48.8	9.5	5.8	42.0	44.0	-1.9	3.9	†
Withdrew from all courses (%)	3.5	5.7	-2.1	2.3	5.4	5.8	-0.3	1.9	
First postprogram semester									
Registered for any courses (%)	84.4	76.5	7.8 *	4.5	71.2	72.2	-1.0	3.6	
Number of credits attempted	11.7	11.5	0.2	0.8	10.9	11.1	-0.1	0.6	
Number of credits earned	8.7	8.8	-0.1	0.8	8.1	8.6	-0.4	0.6	
Passed all courses (%)	40.9	33.9	7.1	4.8	30.9	33.8	-2.9	3.6	†
Withdrew from all courses (%)	7.6	4.9	2.8	2.3	3.3	4.2	-0.9	1.5	
Term GPA (%)									
2.0 to 4.0 (C and above)	54.6	53.0	1.6	5.4	50.2	52.2	-2.0	4.0	
0 to 1.9 (below C)	24.6	22.8	1.8	4.6	19.7	18.6	1.1	3.1	
No GPA[a]	20.8	24.2	-3.4	4.7	30.1	29.2	0.9	3.7	
Graduated in first postprogram semester (%)	1.0	0.0	1.0 **	0.5	3.3	1.9	1.4	1.2	

(continued)

Appendix Table A.3 (continued)

Outcome	Transfer Students				Returning Students				Difference Between Subgroups
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error	
Cumulative through first postprogram semester									
Number of semesters registered	1.8	1.7	0.1 **	0.1	1.6	1.6	0.0	0.1	
Enrolled in a learning community (%)	93.2	4.8	88.4 ***	3.2	78.4	4.3	74.1 ***	3.7	†††
Number of credits attempted	27.0	25.4	1.6	1.2	25.5	25.1	0.4	1.1	
Number of credits earned	21.4	19.4	2.0	1.3	19.2	19.4	-0.2	1.1	
Term GPA (%)									
2.0 to 4.0 (C and above)	73.1	62.6	10.5 **	5.0	62.0	61.6	0.4	4.0	
0 to 1.9 (below C)	25.6	31.1	-5.5	4.8	29.5	28.7	0.8	3.7	
No GPA[a]	1.3	6.3	-5.0 *	2.5	8.5	9.7	-1.3	2.7	
Graduated by end of first postprogram semester (%)	1.0	0.0	1.0 **	0.5	3.8	2.3	1.5	1.3	
Sample size (total = 917)	198	129			339	251			

SOURCE: MDRC calculations from Kingsborough 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.

A two-tailed t-test was applied to differences of impacts between subgroups. Statistical significance levels are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The probability of being assigned to the treatment group varies within random assignment cohorts, and estimates are weighted to account for the different random assignment ratios. Standard errors are clustered by learning community link.

Estimates are adjusted by cohort and declared major at baseline.

[a]The "No GPA" category includes students who did not enroll and students who took only developmental courses, which are not included in GPA calculations.

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Learning Communities and Student Success in Postsecondary Education: A Background Paper
MDRC, 2005. Derek V. Price, Malisa Lee.

NOTE: All the publications listed above are available for free download at www.mdrc.org.

About MDRC

MDRC is a nonprofit, nonpartisan social 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 Child Development
- Improving Public Education
- Promoting Successful Transitions to Adulthood
- 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.