OPENING DOORS

# PROMOTING STUDENT SUCCESS IN COMMUNITY COLLEGE AND BEYOND

## The Opening Doors Demonstration

Thomas Brock and Allen LeBlanc

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BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

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**with**

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# Overview

Accessible and affordable, community colleges are gateways to postsecondary education, offering students new ways to achieve personal and economic goals. However, many students who begin courses at community colleges end them prematurely. In an effort to confront this problem, the Opening Doors Demonstration is testing the effects of community college programs that are designed to increase student persistence and achievement. The programs include various combinations of curricular reform, enhanced student services, and increased financial aid.

This report describes the background, objectives, and design of MDRC's evaluation of Opening Doors. Six community colleges are participating in the project: Kingsborough Community College (New York), Lorain County Community College and Owens Community College (Ohio), Delgado Community College and Louisiana Technical College-West Jefferson (Louisiana), and Chaffey College (California). These are mostly large, well-established community colleges that offer a range of associate's degree programs and technical or vocational programs. The six colleges make up four Opening Doors study sites, each implementing a unique intervention:

1. Kingsborough: In small learning communities, groups of incoming freshmen take classes together and receive vouchers to cover the costs of their books.

2. The Ohio colleges: New and continuing students who have completed no more than 12 credits receive enhanced counseling/guidance and a small scholarship.

3. The Louisiana colleges: Low-income students who have children under age 18 receive a scholarship that is tied to academic performance; ongoing counseling provides an opportunity to discuss goals and progress and to arrange for tutoring or other help.

4. Chaffey: Probationary students take a College Success course and receive individualized assistance in reading, writing, or math.

The Opening Doors evaluation is the first random assignment study of programmatic interventions in community colleges — making it the most scientifically rigorous test of whether these enhanced programs can make a difference. In addition to examining short-term impacts on course completion, grades, and certificates or degrees from community college, the evaluation will determine whether Opening Doors participants experience longer-term improvements in rates of transfer to four-year colleges and universities and in employment, earnings, personal and social well-being, health, and civic participation. Finally, the study will provide an in-depth investigation into the implementation and cost of Opening Doors programs and into the perceptions and experiences of community college students and faculty in the study sites. A series of publications is planned between 2005 and 2009 to inform education policy and practice.

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# Preface

Community colleges have been in existence in the United States since 1901, but it was the publication of the Truman Commission Report in 1947 that gave shape to the community college as we know it today. The report called for the widespread establishment of affordable public colleges that would serve as cultural centers and offer comprehensive educational programs. In the nearly 60 years since the report's release, the number of community colleges in the country has grown to almost 1,200. The colleges award about half a million associate's degrees each year (along with certificates in dozens of high-quality occupational areas), and, with their open-admissions policies, convenient locations, and lower fees than those of traditional four-year institutions, they are accessible to millions of adults who might otherwise lack the preparation or the means to pursue higher education.

Yet community colleges struggle with a difficult statistic: While almost half of all American undergraduate students attend community colleges, the U.S. Department of Education has reported that 46 percent of students who begin postsecondary studies at a community college do not complete a degree or do not enroll elsewhere within a six-year time frame. And, while they are enrolled, many community college students require remedial classes in English or math. What can be done to help these students?

The Opening Doors demonstration attempts to make a difference. MDRC is working with six pioneering community colleges that are implementing innovative programs to improve curricula and instruction and to offer enhanced student services and financial aid supplements, all designed to help students persist in community college and earn a credential. For example, Kingsborough Community College, in Brooklyn, New York, is implementing a learning-community model in which up to 25 first-semester students form a cohort, together taking three "linked classes" (courses, including one English course, that are closely integrated in terms of scheduling and content) as a way to build a more personalized, supportive learning environment and to improve academic performance. Lorain County Community College and Owens Community College in Ohio are providing enhanced student services, including more intensive advising, proactive counseling, and tutorial support.

Opening Doors is pathbreaking for another reason: The effectiveness of its programs will be evaluated with a random assignment research design, widely considered to be the gold standard in determining whether interventions work. In the evaluation, MDRC will compare students who receive the Opening Doors programs with a randomly selected group of students who do not. The comparison will focus on a broad range of student outcomes, including credit accumulation, retention in college, degree attainment, transfer to

four-year universities, labor market success, and civic engagement. Because of the random assignment design, any differences in outcomes between the two groups of students can be attributed with confidence to the Opening Doors programs. MDRC will use the evidence from this evaluation to inform higher education policy and to improve institutional practice at community colleges throughout the country.

Other reports — such as *Building Learning Communities: Early Findings from the Opening Doors Project at Kingsborough Community College*, which is being published together with this one — will detail the implementation and impacts of Opening Doors at six community colleges around the country. This report, however, paints the initiative in broad strokes, providing context for the forthcoming studies, and profiling the demographic characteristics of the students in the study samples, with the aim of shedding light on ways to help more community college students succeed.

Robert J. Ivry
Senior Vice President
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The demonstration is also made possible by the gracious cooperation and support of presidents or chancellors, deans, program staff, and students at each of the six participating community colleges. These individuals — whose hard work is the essence of Opening Doors — also play a vital role in the success of the research. We thank in particular the following people for their ongoing work with us: Regina Peruggi, Rachel Singer, Peter Cohen, Susan Richards, and Zuleika Rodriguez (Kingsborough Community College); Roy Church, Judith Crocker, and Ray Kneisel (Lorain County Community College); Christa Adams, Bill Ivoska, Donna Gruber, Kita Graham, and Chip Campbell (Owens Community College); Alex Johnson and Estella Lain (Delgado Community College); Toya Barnes-Teamer and Tameka Bob (Louisiana Technical College); and Marie Kane, Craig Justice, and Ricardo Diaz (Chaffey College).

The ambitious and varied work of the Opening Doors evaluation represents a collaborative effort among MDRC, the MacArthur Research Network on the Transitions to Adulthood, and researchers from Princeton University. The MacArthur Research Network on the Transitions to Adulthood is a multidisciplinary team of experts working to advance knowledge about the changing nature of early adulthood and about the policies, programs, and institutions that support young people as they move into adulthood. Network members are Gordon Berlin (MDRC), Mark Courtney (University of Chicago), Sheldon Danziger (University of Michigan), Connie Flanagan (The Pennsylvania State University), Frank Furstenberg (University of Pennsylvania), Vonnie McLoyd (University of North Carolina), Wayne Osgood (The Pennsylvania State University), Jean Rhodes (University of Massachusetts, Boston), Cecilia Rouse (Princeton University), Rubén Rumbaut (University of California, Irvine), Richard Settersten (Case Western Reserve University), and Mary Waters (Harvard University). Christina Paxson of Princeton University is leading the evaluation component focused on health outcomes. She is also a member of the MacArthur Research Network on Socioeconomic Status and Health. The partnerships that formed over the early stages of the evaluation reflect collaboration in the fullest sense of the word. As a result, a diverse and immensely talented team of researchers comes together easily and often to think about how best to study Opening Doors, and the evaluation always benefits.

Robert Ivry has been the lead architect of the Opening Doors demonstration since its inception, and the MDRC team benefits greatly from his ongoing guidance. Many MDRC staff

contribute to the project, and we especially thank those who reviewed full drafts or sections of this report: Dan Bloom, Fred Doolittle, John Hutchins, Charles Michalopoulos, Rogéair Purnell, Janelle Sagness, Susan Scrivener, and Melissa Wavelet. We also want to recognize those who provided technical and administrative support: Jenny Au, Kathryn Ferreira, and Colleen Sommo. Cecilia Rouse (Princeton University) and Lashawn Richburg-Hayes (MDRC) contributed Appendix A, on analytic methods for estimating program impacts. Robert Weber edited the report, and Stephanie Cowell prepared it for publication.

The Authors

## Chapter 1

# Introduction and Review of the Literature

If postsecondary education offers the path to economic and personal opportunity, then, for many students, community colleges are the gateway. According to the U.S. Department of Education, nearly half of all students who begin postsecondary education start at a community college.[1] Community colleges serve students in urban, suburban, and rural locations and are located in all 50 states and the District of Columbia. Because of their open admissions policies and low cost relative to most four-year institutions, they are accessible to millions of adults who might lack the preparation or the financial means to pursue higher education. Community colleges also tend to be geared to serving part-time and working students.

Despite the accessibility and relative affordability of community colleges, however, many students who begin programs at them end their formal education prematurely. Longitudinal research on postsecondary students indicates that 46 percent of those who begin at community colleges do not complete a degree or do not enroll elsewhere within a six-year time frame.[2] To be sure, some students who leave community college without completing a degree or transferring to another institution never intended to do more than take a few classes, or they soon discovered that they were not really committed to attending college. Many others, however, strive to earn a college degree, but their efforts are derailed when the competing demands of school, work, and family become impossible to meet. While some may lack the basic aptitude or skills to perform successfully in college-level courses, others may confront institutional barriers to persistence, such as inadequate financial aid or lack of access to advisors and mentors who will take the time to work with them toward their academic and personal goals. In short, some students experience barriers that prevent entry to college, while others feel ignored or unsupported after they arrive on campus.

MDRC launched the Opening Doors demonstration to learn how community colleges can implement reforms that help greater numbers of students achieve their academic and career goals. Specifically, the demonstration is examining how various programs or interventions that represent enhancements to community college instruction, student services, and financial aid might affect student persistence and other outcomes, including degree attainment, labor market experiences, and personal and social well-being. Opening Doors will measure the effects of these enhancements by randomly assigning students who participate in the research to either a *program group* that receives the enhanced services or a *comparison group* that receives the

[1]U.S. Department of Education, 2002a.
[2]U.S. Department of Education, 2002a.

standard services offered by the college. By comparing the two groups' experiences over a period of several years, the evaluation team will be able to measure the difference, or *impact,* that the interventions make on students' lives, both in the short term and in the long term.

This report describes the background, objectives, and design of the Opening Doors evaluation. It begins below with a brief review of the research on community college students and their experiences. Chapter 2 then provides a general description of the six colleges that are participating in the demonstration and the four interventions that are being evaluated. Chapter 3 presents details about the Opening Doors research design, the research questions that will be addressed, the types of data that will be gathered, and the strengths and limitations of the evaluation. Chapter 4 describes the targeted population and the characteristics of the first group of students to enroll in the demonstration. Chapter 5 concludes the report with a summary of the publications that MDRC plans to produce over the course of the evaluation.

## A Review of Relevant Research

There is a considerable body of research on community college students, the benefits of a community college education, and why some students persist and graduate while others drop out. The following review, which is far from exhaustive, gives an overview of the data and theoretical perspectives that have most influenced the design of Opening Doors.

### A Profile of Community College Students

The American Association of Community Colleges (AACC) reports that 11.6 million people are enrolled in nearly 1,200 community colleges nationwide. Most of these students are older than what is normally considered "college age," having an average age of 29 years.[3] Minority students account for 30 percent of all community college enrollments nationally — which is higher than the percentage of minority students attending four-year colleges and universities — and 80 percent of community college students balance their studies with full- or part-time work.[4]

People decide to enroll in community colleges for a variety of reasons. Data from the U.S. Department of Education indicate that nearly 60 percent of the students who enroll in community colleges say that their primary goal is to earn a two-year degree or certificate or to transfer to a four-year institution; 23 percent state they are mainly striving to obtain particular job skills and credentials; and 19 percent are primarily seeking personal enrichment from the community college experience. Nonetheless, although it may not be the foremost goal for all

[3]See the AACC Web site: http://www.aacc.nche.edu.
[4]Phillippe and Patton, 1999.

community college students, earning a degree or certificate is desired by the vast majority: Only 16 percent of enrollees say that they have no such expectation.[5]

Despite their hopes of obtaining postsecondary degrees, many who enroll do not continue. For example, more than a quarter of all students who enter public, four-year institutions do not persist beyond their first year of study. Among students beginning at public, two-year institutions, almost half of those enrolled part-time leave without a degree after one year. Nearly a fifth of those enrolled full-time depart after a year.[6] A number of personal and situational barriers contribute to these low rates, particularly among community college students. It has been shown that high percentages of enrollees are not fully prepared for college-level study. For example, more than 40 percent of the high school students who, on graduation, enter community colleges have basic reading comprehension skills but cannot understand or evaluate abstract concepts or make complex inferences or judgments that require piecing together multiple sources of information. Similarly, about 30 percent of graduating high school students can perform simple arithmetic operations on whole numbers but cannot perform basic operations on decimals, fractions, or roots.[7] In addition, over half of those who enter two-year institutions have two or more "risk factors" known to adversely affect the odds of meeting their postsecondary educational goals. These factors include, for example, completion of high school by a General Educational Development (or GED) certificate, delayed or part-time attendance when first starting college, full-time employment when first enrolled, and being or becoming a parent — especially a single parent — while enrolled.[8]

### The Benefits of a Community College Education

Ample evidence suggests that the accomplishment of completing a community college degree program pays off in the labor market. Data from the Current Population Survey of the U.S. Bureau of the Census, for instance, show that, from 1997 to 1999, the annual earnings for people between the ages of 25 and 64 who hold an associate's degree were $33,020, as compared with annual earnings of $25,909 for those who did not advance beyond a high school diploma or GED certificate.[9]

Studies of annual earnings that control for gender, race/ethnicity, parental income, and other factors more convincingly illustrate significant economic benefits for students who attend community college. For example, using data from the National Longitudinal Survey of the High School Class of 1972, Kane and Rouse found that those who attended a two-year college earned

[5]U.S. Department of Education, 2003a.
[6]U.S. Department of Education, 2002a.
[7]U.S. Department of Education, 2003a.
[8]U.S. Department of Education, 2002a.
[9]Day and Newburger, 2002.

about 10 percent more income than those without any college education. Moreover, their results suggest that, for every two semesters of community college successfully completed, earnings increased by 4 percent to 6 percent.[10] Grubb's analysis of the Survey of Income and Program Participation (SIPP) from 1984 to 1990 similarly found that individuals who had a community college certificate or degree earned more than those with fewer years of education. He also found that people who spent two years in a college or university without receiving a credential experienced lower economic returns than people who had an associate's degree.[11]

Because studies show that bachelor's degrees confer even greater economic benefits than two-year degrees — and because a major function of community colleges is to prepare students for transfer to four-year institutions — an important question is whether students who attend community college later enter and succeed in four-year colleges or universities. Recent analysis conducted by the U.S. Department of Education suggests that 25 percent of all students who enter a community college subsequently transfer to a four-year institution within five years. Among students who begin community college with *the stated expectation* of earning a bachelor's degree or higher, the transfer rate is 36 percent within five years.[12] Research suggests that community college students who transfer to four-year institutions have similar rates of persistence as those who start at four-year institutions but that they require more time to finish their degrees.[13] Among community college students who transferred to four-year schools, 36 percent attained a bachelor's degree within six years of starting their postsecondary education; by comparison, 51 percent of students who started out at four-year colleges or universities completed a bachelor's degree within this time frame.[14]

Although more difficult to document than educational and employment outcomes, there are a host of other potential benefits associated with greater educational attainment, and some of these may be particularly important in the lives of low-income and minority students who pursue postsecondary education in community colleges. First, the college experience can create sources of social support and opportunity through relationships with fellow students, faculty, and staff. A large body of research suggests that people who enjoy strong and supportive relationships with others are better able to handle stressful life events and circumstances and, consequently, to preserve their emotional and physical well-being.[15] The college experience can prove to be pivotal in the lives of many students because it facilitates access to role models and mentors who are uniquely qualified to support and guide them toward their personal goals. Studies show that stu-

[10]Kane and Rouse, 1995.
[11]Grubb, 1995.
[12]U.S. Department of Education, 2001.
[13]U.S. Department of Education, 2001.
[14]U.S. Department of Education, 2002a.
[15]Thoits, 1995; Turner and Turner, 1999.

dents who have mentors may have a greater sense of self-worth, be better able to weather personal crises, become more aware of educational and career opportunities, and ultimately set higher goals for themselves.[16] Finally, to the extent that colleges successfully create a supportive and "bonding" environment, students — younger students especially — may be less likely to engage in behaviors that compromise their own and the community's well-being.[17]

Second, longstanding research literature documents a strong positive association between education and health. Individuals with higher levels of education have lower mortality and morbidity rates from many types of disease and display better health behaviors, including lower levels of smoking and binge drinking and a lower prevalence of obesity.[18] The relationship between education and health can be seen as part of a more fundamental relationship between socioeconomic status (SES) and health, which is especially relevant to any discussion of the circumstances faced by low-income populations. The research has consistently identified a "SES health gradient,"[19] wherein each incremental step upward in SES — as measured by social class, education, income, and occupational prestige — is associated with better health. If the college experience has the direct effect of exposing people to more and better health information and other resources,[20] as well as ultimately providing greater avenues for raising SES through improved educational and employment options,[21] then it may play an important role in the long-term health of students, particularly low-income students who have more ground to gain.

Finally, greater educational attainment is also believed to promote greater civic engagement and awareness, as assessed by voting behaviors, volunteerism, newspaper readership, and involvement in community groups and clubs (for example, political clubs, youth groups, and church service groups). Education is also thought to be associated with fundamental civic values and tolerance, such as an ethic of participation in the larger community and attitudes toward free speech.[22] In a recent analysis of data sets from both the High School and Beyond and the General Social Survey, Dee found that education has large effects on voter participation and support for free speech. Educational attainment also appears to increase the quality of civic knowledge, as measured by the frequency of newspaper readership.[23] Because of their critical place in the country's postsecondary educational system, community colleges may play an important role in producing these outcomes.

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[16]Rhodes, 2002.
[17]Eccles and Gootman, 2001; Neumark-Sztainer, Story, French, and Resnick, 1997; Resnick et al., 1997.
[18]Christenson and Johnson, 1995; Deaton and Paxson, 2001; Elo and Preston, 1996.
[19]Adler and Newman, 2002; Marmot and Wilkinson, 1999.
[20]Grossman, 1972; Kenkel, 1991.
[21]Grossman, 1972.
[22]Delli Carpini and Keeter, 1996; Sullivan and Transue, 1999; Uslaner, 2002.
[23]Dee, 2004.

### Student Persistence and Departure

Given the foregoing apparent benefits of earning a two- or four-year college degree, researchers have long sought explanations for why so many students end their studies prematurely. Much of the early research focused on the background and personal characteristics of students and their families, such as gender, race/ethnicity, high school performance, the timing of college entrance, parental education, and family income. For example, Gates and Creamer used the National Longitudinal Survey of the High School Class of 1972 to study retention in community colleges, and they built a predictive model that focuses on students' backgrounds and personal characteristics — such as high school grades and the decision to delay college entry — as explanatory factors. That model explained just 4.3 percent of the observed variation in community college retention,[24] highlighting the need for broader theoretical frameworks for understanding student persistence and completion rates in community colleges.

Tinto has theorized that three primary sets of factors influence students' decisions to stay in or leave college. In addition to the background and personal characteristics of students and their families, he draws attention to students' interactions with faculty and college staff as well as to their relationships with fellow students. Such an "interactionalist" perspective emphasizes the significance of "fitting in" or "feeling at home" on campus,[25] and empirical studies have demonstrated the value of such a focus. In one national study that tracked 825 community college students for nine years, Pascarella and colleagues concluded that "student-environment fit" — which is partly attributable to the frequency and quality of students' interactions with faculty and peers — was the most important determinant of persistence and degree completion.[26] Similarly, in a study of 569 students enrolled in the Ford Foundation's Urban Community Colleges Transfer Opportunities Program, Nora and Rendon found that students who were better integrated into the academic and social life of the campus were more likely to transfer to four-year institutions.[27]

Recently, scholars have reevaluated Tinto's theory, attempting to delve deeper into the processes through which student commitment increases via integration into the academic and social communities of the college or university.[28] These efforts reflect current demographic, cultural, and organizational perspectives on student engagement and success. A fundamental contribution of this research — and one that is most relevant to Opening Doors — is that it highlights the role that colleges themselves can play in fostering student persistence and program completion. In short, by shifting the focus from what students bring to the college experience to

[24]Gates and Creamer, 1984.
[25]Tinto, 1993.
[26]Pascarella, Smart, and Ethington, 1986.
[27]Nora and Rendon, 1990.
[28]Braxton, 2002.

what happens to them after they begin their studies, the field is moving toward a deeper and more policy-relevant understanding of the social and institutional factors that contribute to students' departure from community college.

### Reforming Community Colleges

Evolving discourse about institutional responsibility for student departure from postsecondary studies holds a range of perspectives, particularly when the discussion turns to community colleges. Cohen and Brawer, for example, argue that community colleges are already doing their best to encourage students who might otherwise have been excluded from higher education and that students who discontinue their studies often do so because of problems or challenges that are simply beyond the reach of institutional supports.[29] In contrast, Dougherty contends that community colleges must consider profound organizational changes — perhaps going so far as to convert themselves into branches of the state universities or even into four-year colleges — to address their essential failure to deliver on the educational and occupational opportunities that they promise.[30]

There is consensus, however, that community colleges are complex organizations that have multiple, and sometimes competing, missions, which include the provision of:

- Instruction leading to associate's degrees or transfers to four-year institutions
- Developmental education for adults who lack the skills required for college-level work
- English as a Second Language (ESL) education
- Vocational education leading to certification for work in specific industries
- Noncredit instruction in a wide range of substantive areas

Every one of these programs has a constituency and may or may not be available at institutions other than community colleges. Therefore, while some have suggested that community colleges lack the resources to deliver all the programs that they attempt to provide,[31] it is important to recognize that there are often strong political and financial pressures or incentives for community colleges to be comprehensive.[32]

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[29]Cohen and Brawer, 2003.
[30]Dougherty, 1994.
[31]Brint and Karabel, 1989; Cohen and Brawer, 2003; Dougherty, 1994.
[32]Bailey and Morest, 2004.

Because more fundamental institutional changes are unlikely in the near term, analysts have suggested a range of practical strategies that may improve student persistence in community colleges and may help more students realize their academic goals. Matus-Grossman and Gooden outline three sets of approaches, focusing on the curriculum and instruction, student support services, and financial aid.[33] With regard to curricular and instructional reform, for example, colleges can integrate developmental education or English language instruction into occupational or academic programs to contextualize learning and speed progress toward degrees. Another solution that might better accommodate the needs of working and parenting students is to break a single credential program into a sequence of modules that may be completed in intensive, short periods. Finally, colleges can make scheduling more flexible by offering more classes in the evenings and weekends, on-line, in neighborhood centers, or at worksites for major employers.[34]

The educational approaches outlined above are structural in nature, and thus they do little to address what happens inside the classroom. Some studies suggest that community colleges pay insufficient attention to teaching quality and that good teaching emerges only in isolated and idiosyncratic ways.[35] Developmental English and mathematics courses are particularly prone to "skills and drills" models of instruction that rely heavily on completing exercises in workbooks or on computers, make little effort to tie basic skills to practical uses in students' lives, and involve little meaningful interaction between students and teachers. As Grubb notes:

> The problem with this approach is not just that these classes are deadly, with low levels of student engagement. They also violate all the maxims for teaching in adult education. . . . And their tactic is simply "more of the same": they take students who have not learned well in 10 or 12 years of standard didactic instruction, and then put them through an additional 15 weeks of similar instruction.[36]

Grubb also observes that "skills and drills" teaching is not limited to developmental courses but also emerges in college-level classes that are essentially converted into remedial classes when students are not ready for what the instructor considers college-level work.[37]

Various proposals have been put forward or implemented to improve teaching and learning in community colleges. One approach is to offer supplemental instruction, in which students work collaboratively to integrate course content and study skills through regularly

[33]Matus-Grossman and Gooden, 2002.
[34]Kazis and Liebowitz, 2003.
[35]Grubb and Associates, 1999.
[36]Grubb, 2001a, p. 11.
[37]Grubb and Associates, 1999; Grubb 2001b.

scheduled, peer-assisted study sessions linked to difficult courses.[38] Another is to create small learning communities, in which a group of students takes two or more classes together (often including at least one remedial course) and teachers for these classes coordinate their lesson plans and review student progress.[39] A more broad-based approach is to give college administrators and faculty direct feedback from students about their experiences in the classroom — as the Community College Survey of Student Engagement is doing — which provides a means for promoting campuswide dialogue on academic standards and strategies for improving instruction.[40] The Carnegie Foundation for the Advancement of Teaching has also recently launched an initiative with 11 community colleges in California to design effective models for teaching students who come to campus unprepared for college-level work.

Revamping or strengthening student support services may be another strategy to increase student persistence and academic achievement. Purnell and Blank identify five distinct but interrelated components of a student services program: academic guidance and counseling, personal guidance and counseling, career counseling, academic tutoring and supplemental supports such as child care and transportation assistance, and vouchers or stipends to cover books and supplies. While few colleges can afford to offer these services to all students, the authors provide examples of programs that are targeted to low-income or nontraditional students who are in greatest need of help.[41] Academic guidance and counseling is arguably the most important student service and an area where most students receive minimal help. Nationally, the average community college counselor has a caseload of nearly 1,000 students.[42] While there is tremendous variety in how these counselors deliver services and what topics they cover, large caseloads tend to drive them toward a traditional problem-solving approach in which students present an issue and the counselor offers a quick response. The National Academic Advising Association (NAcAdA) urges community and four-year colleges and universities to provide sufficient staffing — so that students and counselors can have ongoing, interactive relationships — and to adopt a developmental approach that helps students clarify personal goals and objectives, rather than simply approving their choice of courses.[43]

Finally, some have suggested that financial aid policies need to be revised in order to increase access to, and persistence in, higher education.[44] Rising tuition and fees, coupled with a general policy shift toward loans and away from grants, have forced students at all income lev-

[38]University of Missouri-Kansas City, 1997.
[39]Tinto, 1998.
[40]Community College Survey of Student Engagement Web site: www.ccsse.org.
[41]Purnell and Blank, 2004.
[42]Grubb, 2001b.
[43]Gordon, Habley, and Associates, 2000.
[44]American Association of State Colleges and Universities Web site, 2005; Western Interstate Commission for Higher Education, 2003.

els to take on increasing amounts of debt in order to pursue postsecondary studies. These trends may adversely affect community college students, particularly in light of research suggesting that many low-income students are "loan averse" — perhaps because they are uncertain that their education will "pay off" in the future and allow them to repay those debts.[45] Further, students who have defaulted on loans in the past may be ineligible for future grants or loans. One study found that coming from a low-income family, being Native American or African-American, having a GED, having a composite score of less than 16 on the ACT Assessment, or being over 25 years old were characteristics associated with high default rates for student loans in community colleges.[46] To improve student persistence and accelerate completion of community college degrees and certificates, Choitz and Widom propose four possible solutions: (1) providing more intensive financial aid counseling to ensure that students apply for and receive all the aid to which they are entitled, (2) more fully covering the direct price of attendance by providing more generous grants, (3) encouraging part-time students who are working to increase their enrollment by supplementing their wages while they are in school, and/or (4) offering financial incentives for students to complete key academic milestones or earn good grades.[47]

## A Guiding Framework

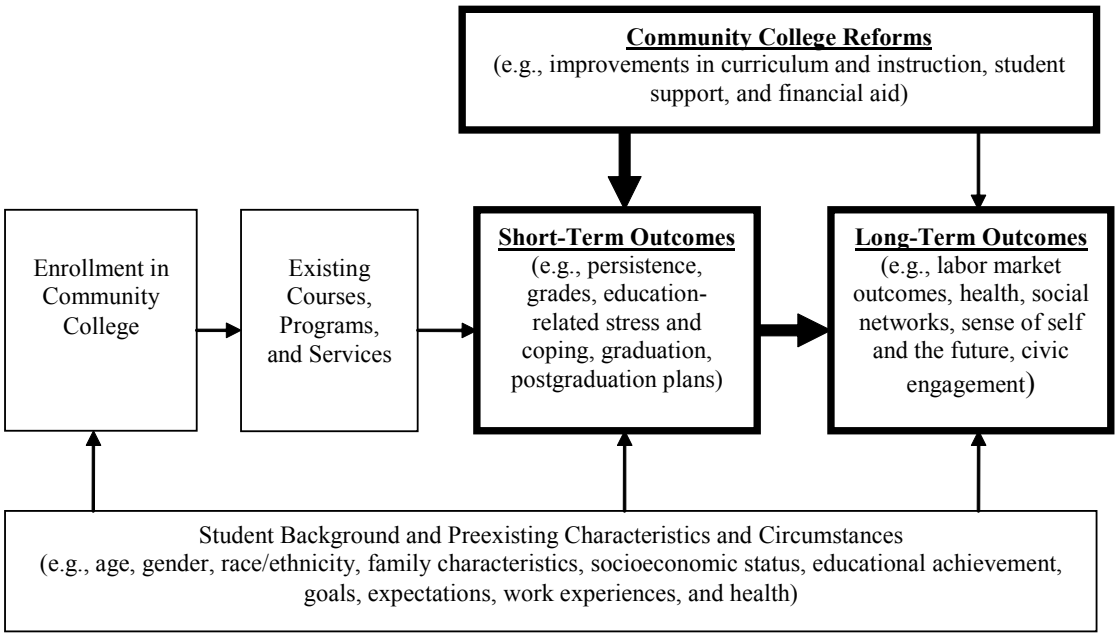
While each of the foregoing proposed solutions to increase student persistence and achievement in community colleges has merit, few have been subject to rigorous evaluation to determine whether they would lead to better outcomes than students would experience within existing programs. The Opening Doors study will test this proposition. Based on the preceding review of the literature, the general conceptual model shown in Figure 1.1 provides a useful guiding framework that links community college reforms to outcomes that reflect a successful educational experience and transition to a better life. As illustrated in the figure, community college reforms theoretically affect educational outcomes like persistence and grades in the short term, which, in turn, influence labor market outcomes and other indicators of personal and social well-being in the long term. This conceptual model shows that there are many theoretical linkages between these concepts, but it highlights the primary relationships — distinguishable by the bolded arrows linking community college reforms to short-term outcomes, which subsequently are linked to long-term outcomes — on which the Opening Doors demonstration is built. These bolded arrows portray the causal pathway wherein educational gains can serve as a lever for more enduring, positive rewards in young adulthood.

[45]Matus-Grossman and Gooden, 2002; U.S. Department of Education, 2002b.
[46]Christman, 2000.
[47]Choitz and Widom, 2003.

**The Opening Doors Demonstration**

**Figure 1.1**

**Conceptual Model for Evaluating the Effects of Community College Reforms**




NOTE: Bolded arrows illustrate the primary relationships on which Opening Doors is built.

Other important linkages are shown with unbolded arrows. It is possible, for example, that, in addition, some reforms may have direct and independent effects on long-term outcomes, such as social networks or civic engagement. Figure 1.1 also demonstrates that the effects of a student's background and preexisting characteristics and circumstances must be considered — alongside reforms — as determinants of community-college enrollment and both short- and long-term outcomes that occur with the passage of time. Chapter 2 describes the Opening Doors colleges and interventions in detail.

## Chapter 2

# The Opening Doors Colleges and Interventions

Beginning in 2000, MDRC began a nationwide search for community colleges that were both interested in, and had the capacity to participate in, a demonstration project to test the effectiveness of programs designed to increase the academic success of their students and that would lead to longer-term success in the labor market and in life. Because there was little evidence to suggest what type of interventions would make the most difference for students, MDRC sought out programs that emphasized one or more of the three approaches outlined in Chapter 1: curricular and instructional reforms, enhanced student services, and increased financial aid. As noted earlier, the evaluation design that MDRC proposed was to assign students randomly into one of two groups: a *program group* that would receive the Opening Doors intervention and a *comparison group* that would receive all the regular programs and services offered by the college but not the Opening Doors program. A random assignment design is best suited to situations where (1) there is clear contrast between the intervention and the status quo; (2) there is genuine uncertainty about whether the benefits of the intervention will outweigh its costs; and (3) the intervention cannot accommodate everyone who might be eligible, making random assignment a fair and ethical way to allocate scarce program slots.

The nationwide search led to the following six community colleges that were interested in participating in the demonstration and that met the conditions necessary for a random assignment study:

- Kingsborough Community College in Brooklyn, New York
- Lorain County Community College in Elyria, Ohio (west of Cleveland)
- Owens Community College in Toledo, Ohio
- Delgado Community College in New Orleans, Louisiana
- The West Jefferson campus of the Louisiana Technical College in Harvey, Louisiana (a suburb of New Orleans)
- Chaffey College in Rancho Cucamonga, California (in San Bernardino County, east of Los Angeles)

MDRC worked closely with the colleges to create the interventions that would be tested, building on existing programs and goals at each college. MDRC also raised funds to provide grants that each college could use to develop or enhance its Opening Doors program. This chapter describes the colleges and the interventions that will be tested.

## The Opening Doors Colleges

This section presents four tables that describe the Opening Doors colleges in terms of their location, student body and faculty characteristics, and completion rates (Table 2.1); their largest academic and vocational programs (Table 2.2); their costs (tuition and fees) and the primary sources of financial assistance for their students (Table 2.3); and their budgets (Table 2.4). Comparisons are made both among these six public institutions and between them and their counterparts nationally. Data are drawn primarily from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS). While at times the discussion focuses on the unique characteristics of Lorain and Owens in Ohio and of Delgado and the West Jefferson campus of Louisiana Technical College, these two pairs of institutions are treated as single study sites for the purposes of the impact evaluation.

Kingsborough, Lorain, Owens, Delgado, and Chaffey are well-established, prototypical community colleges that offer a range of programs leading to an associate's degree or to a technical or vocational certificate. In contrast, the West Jefferson campus of Louisiana Technical College is newer and smaller and concentrates on providing technical and vocational education; the large majority of its students are seeking to acquire job skills and training certificates and generally are not pursuing an associate's degree or the opportunity to transfer to a four-year institution. Also, because Lousiana Technical College-West Jefferson is part of a 40-campus, statewide system, statistics are not always available to compare this campus with the other Opening Doors colleges.

As Table 2.1 shows, both urban and suburban institutions are participating in the Opening Doors evaluation. These are relatively large community colleges that represent a diverse set of geographic locales. Kingsborough, Owens, Delgado, and Chaffey are located in or near large cities, and each has a full-time equivalent (FTE) enrollment of around 10,000 students. Lorain's student body is smaller, with an enrollment of almost 5,200 FTE students. All five of these colleges are relatively large in comparison to national averages.[1] Louisiana Technical College-West Jefferson, however, has an FTE enrollment of only 147 students.

Community colleges in the United States have more part-time than full-time students,[2] and, like most of their counterparts nationally, the more traditional community colleges participating in Opening Doors serve a greater proportion of part-time students (Table 2.1). This is especially true for Owens and Chaffey, each with approximately 70 percent of its students attending on a part-time basis. Kingsborough is the exception, with a slim majority of full-time students. At Louisiana Technical College-West Jefferson, 61 percent of the students are enrolled full time.

[1]Phillippe and Patton, 1999.
[2]Phillippe and Patton, 1999.

**The Opening Doors Demonstration**

**Table 2.1**

**Comparison of Community College Locations, Enrollment Data, Faculty Compositions, and Completions Data, School Year 2002-2003**

| | Kingsborough | Lorain | Owens | Delgado[a] | Louisiana Technical-West Jefferson[b] | Chaffey |
|---|---|---|---|---|---|---|
| Location | Brooklyn, NY | Elyria, OH | Toledo, OH | New Orleans, LA | Harvey, LA | Rancho Cucamonga, CA |
| Degree of urbanization | Large city | Mid-size city | Large city | Large city | Urban fringe of large city | Urban fringe of large city |
| **Fall enrollment, 2002** | | | | | | |
| Full-time equivalent (FTE) enrollment | 10,280 | 5,185 | 9,353 | 9,746 | 147 | 9,853 |
| Total enrollment | 15,132 | 8,898 | 17,921 | 15,121 | 713 | 18,480 |
| Full-time students (%) | 51.7 | 37.2 | 28.0 | 46.5 | 60.8 | 29.7 |
| Part-time students (%) | 48.3 | 62.8 | 72.0 | 53.5 | 39.2 | 70.3 |
| Men (%) | 40.3 | 34.2 | 52.7 | 31.1 | 63.3 | 38.1 |
| Women (%) | 59.7 | 65.8 | 47.3 | 68.9 | 36.7 | 61.9 |
| Foreign/nonresident (%) | 4.7 | 0.7 | 0.5 | 3.8 | 0.0 | 1.3 |
| Black, non-Hispanic (%) | 30.5 | 7.7 | 11.9 | 40.7 | 56.0 | 11.9 |
| American Indian or Alaskan Native (%) | 0.1 | 0.7 | 0.6 | 0.6 | 0.1 | 0.6 |
| Asian or Pacific Islander (%) | 9.1 | 0.8 | 0.7 | 1.8 | 6.2 | 7.5 |
| Hispanic (%) | 13.6 | 6.7 | 3.8 | 3.5 | 11.5 | 40.2 |
| White, non-Hispanic (%) | 41.9 | 81.8 | 81.2 | 37.6 | 26.2 | 33.0 |
| Race/ethnicity unknown (%) | 0.0 | 1.6 | 1.4 | 12.0 | 0.0 | 5.3 |
| Under age 25[c] (%) | 73 | 56.2 | 48 | 50 | 42 | 57 |

(continued)

**Table 2.1 (continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Faculty**[d] | | | | | | |
| Total faculty | 814 | 571 | 187 | 805 | 76 | 687 |
| Full-time faculty | 255 | 121 | 187 | 336 | 16 | 205 |
| Part-time faculty | 559 | 450 | NA | 469 | 60 | 482 |
| Men (%) | 49.5 | 43.8 | 50.8 | 42.1 | 71.1 | 46.7 |
| Women (%) | 50.5 | 56.2 | 49.2 | 57.9 | 28.9 | 53.3 |
| Foreign/nonresident (%) | 0.0 | 0.2 | 2.1 | 0.0 | 0.0 | 0.3 |
| Black, non-Hispanic (%) | 7.5 | 2.5 | 1.1 | 21.1 | 35.5 | 7.9 |
| American Indian or Alaskan Native (%) | 0.4 | 0.0 | 1.1 | 0.1 | 0.0 | 1.3 |
| Asian or Pacific Islander (%) | 3.2 | 1.4 | 0.5 | 2.1 | 0.0 | 6.4 |
| Hispanic (%) | 4.2 | 3.5 | 1.6 | 1.5 | 1.3 | 10.6 |
| White, non-Hispanic (%) | 84.8 | 88.4 | 93.6 | 74.0 | 63.2 | 72.9 |
| Race/ethnicity unknown (%) | 0.0 | 4.0 | 0.0 | 1.1 | 0.0 | 0.6 |
| Average equated 9-month salary, full-time ($) | 62,927 | 54,005 | 45,160 | 44,684 | 36,765 | 75,901 |
| **Completions, 2002** | | | | | | |
| Awarded an associate's degree | 1,448 | 707 | 949 | 912 | 14 | 1,186 |
| Awarded an associate's degree or certificate | 1,464 | 801 | 1,210 | 1,077 | 40 | 1,713 |
| Graduation rate[e] (%) | 17.1 | 9.0 | 12.6 | 2.3 | NA[f] | 23.4 |
| Transfer-out rate[g] (%) | 10.5 | 18.5 | NA | 13.5 | 11.6 | 20.1 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).
NOTES: NA = not available. Rounding may cause slight discrepancies in sums and differences.

[a]Delgado's figures include the City Park, West Bank, and Charity School of Nursing campuses. Opening Doors is operating at the main campus (City Park) and West Bank.

[b]Louisiana Technical College-West Jefferson data referring to total enrollment, gender, and race/ethnicity are based on a 12-month enrollment period. Data on full-time/part-time status and age are based on fall enrollment data.

[c]Age distribution is collected in odd years. Consequently, age data refer to 2001-2002 enrollments.

[d]Faculty data are taken from the 2003-2004 school year, as 2002-2003 was an optional reporting year.

[e]Graduation rates are for cohort year 2000. Graduation rates are determined by completers within 150 percent of the normal time to complete a degree.

[f]Louisiana Technical College-West Jefferson calculates graduation rates differently than the other institutions and cannot be compared.

[g]Transfer-out rates are for cohort year 2000. Transfer-out rates are determined by students known to have transferred to another postsecondary institution within 150 percent of the normal time to complete a degree.

The student populations at these colleges can be further described in terms of their gender, race/ethnicity, and age composition (Table 2.1). Generally speaking, community colleges in the United States enroll more women than men, although the gender differential is not large.[3] Among the large community colleges participating in Opening Doors, only Owens reports a majority of male students (53 percent). Delgado's student population has the largest proportion of women (69 percent). The student population at Louisiana Technical College-West Jefferson comprises significantly more men than women.

According to national statistics, non-Hispanic whites account for more than 60 percent of the country's community college population. Hispanics and blacks or African-Americans each represent sizable minority groups within this population, accounting for approximately 11 percent each.[4] The Opening Doors colleges diverge from this demographic profile in a couple of important ways (Table 2.1). Some have exceptionally large non-Hispanic white populations; for example, more than 80 percent of students at the two Ohio colleges are predominantly non-Hispanic whites. In contrast, other colleges in the study serve larger minority populations: Chaffey's student population is more than 40 percent Hispanic; Kingsborough's and Delgado's are each more than 30 percent black or African-American; and more than half (56 percent) of the student body at Louisiana Technical College-West Jefferson are black or African-American.

People under age 25 account for close to half the community college student population in the United States, and the traditional colleges in Opening Doors generally reflect this.[5] However, Kingsborough appears to have an exceptionally young student body, with close to 75 percent being under age 25. Louisiana Technical College-West Jefferson reaches an older student population, with approximately 60 percent of its students being over the age of 25.

Table 2.1 also presents data on the faculty at the Opening Doors colleges. Because IPEDS data do not support the calculation of FTEs for faculty members, the analysis cannot include faculty-to-student ratios. What is clear, however, is that, like many of the students they teach, most of these faculty members — and their counterparts nationally[6] — have only part-time involvements with the colleges. In all these Opening Doors colleges, part-time faculty members far outnumber their full-time counterparts, typically by a factor of greater than two.

The gender composition of the faculty at the Opening Doors colleges is fairly balanced, with virtually even splits at two of the colleges and small majorities of women at three others. Louisiana Technical College-West Jefferson has a predominantly male faculty. Non-Hispanic whites are more prevalent than individuals of color among the faculty of the Opening Doors

[3]Phillippe and Patton, 1999.
[4]Phillippe and Patton, 1999.
[5]Phillippe and Patton, 1999.
[6]Cohen and Brawer, 2003.

colleges — although, in the Louisiana site, substantial proportions of the faculty are black or African-American. At Chaffey, more than 10 percent of the faculty are Hispanic.

Additionally, Table 2.1 shows that the equated nine-month average salaries of full-time faculty members vary considerably across the Opening Doors colleges, which is partly a function of regional economic differences and institutional type. For instance, the salaries at Kingsborough and Chaffey — located near heavily populated and coastal urban centers — are higher than at the others and are substantially higher than the national average for faculty at public community colleges. Chaffey has the twelfth-highest faculty salary level among two-year public institutions nationally.[7] The nine-month average salary at Louisiana Technical College-West Jefferson is the lowest among the Opening Doors sites.

Table 2.1 also shows how many associate's degrees and certificates are awarded by these colleges, and it presents their graduation and transfer rates. The numbers of degrees and certificates conferred in 2002 by the Opening Doors colleges partly reflect institutional size, with the largest colleges awarding the most degrees and certificates. They also mirror institutional type, with the Louisiana Technical College-West Jefferson campus awarding far more certificates than associate's degrees.

The graduation rates — which reflect the percentage of students who earn a degree within 150 percent of the time expected for that degree — vary considerably among the traditional community colleges in the study (Table 2.1). Chaffey has a graduation rate of close to 25 percent, while Delgado has a rate of just over 2 percent. Readers who are unfamiliar with the IPEDS graduation rates should know that they are not necessarily a good measure of institutional performance, in part because community colleges do not have control over the characteristics of students who enroll and in part because many students take longer than three years to earn an associate's degree.

Many community college students transfer to other schools complete a degree. Lorain has a transfer rate of nearly 20 percent — almost 10 percentage points higher than its graduation rate — suggesting that many of its students transfer to another postsecondary institution before attaining an associate's degree. Chaffey has the highest transfer rate, at just over 20 percent. The graduation and transfer rates for two-year public institutions nationally are 24 percent and 15 percent, respectively.[8]

Table 2.2 presents the most commonly pursued academic and vocational programs offered by each of the Opening Doors colleges, ranked in descending order for each institution, based on the number of graduates in school year 2002-2003. The two most commonly chosen

[7]Based on MDRC calculations using IPEDS data on equated nine-month average salaries for full-time instructional faculty at two-year public institutions during school year 2002-2003.

[8]Personal correspondence with Andrew Mary, U.S. Department of Education, National Center for Education Statistics, October 21, 2004. The graduation rate is based on cohort year 1999.

## Table 2.2

## Top Academic and Vocational Programs at the Opening Doors Colleges, School Year 2002-2003

| Kingsborough | Lorain | Owens | Delgado[a] | Louisiana Technical-West Jefferson | Chaffey |
|---|---|---|---|---|---|
| Business, Management, Marketing, and Related Support Services | Liberal Arts and Sciences, General Studies, and Humanities | Health Professions and Related Clinical Sciences | Health Professions and Related Clinical Sciences | Health Professions and Related Clinical Sciences | Liberal Arts and Sciences, General Studies, and Humanities |
| Liberal Arts and Sciences, General Studies, and Humanities | Health Professions and Related Clinical Sciences | Business, Management, Marketing, and Related Support Services | Business, Management, Marketing, and Related Support Services | Business, Management, Marketing, and Related Support Services | Business, Management, Marketing, and Related Support Services |
| Health Professions and Related Clinical Sciences | Business, Management, Marketing, and Related Support Services | Engineering Technologies / Technicians | Liberal Arts and Sciences, General Studies, and Humanities | Mechanics and Repair Technologies / Technicians | Health Professions and Related Clinical Sciences |
| Education | Engineering Technologies / Technicians | Security and Protective Services | Education | | Family and Consumer Sciences / Human Sciences |
| Computer and Information Sciences and Support Services | Computer and Information Sciences and Support Services | Liberal Arts and Sciences, General Studies, and Humanities | Engineering Technologies / Technicians | | Security and Protective Services |

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

NOTES: [a]Delgado's information includes the City Park, West Bank, and Charity School of Nursing campuses. Opening Doors is operating at the main campus (City Park) and West Bank. Data are based on degrees conferred between July 1, 2002, and June 30, 2003.

areas of study are in the Health Sciences and Business. These two fields account for the first- or second-ranked program across these institutions. Liberal Arts and Sciences is also a highly ranked area of study and is the one most frequently sought at Lorain and Chaffey. The rankings also highlight some of what distinguishes the Opening Doors colleges from one another. For example, programs in Engineering have large enrollments at both Ohio schools. Programs in Security and Protective Services are popular at Owens and Chaffey, as are programs in Computer and Information Sciences at Kingsborough and Lorain. The programs chosen by students at the Opening Doors colleges generally mimic the national data for completions of associate's degrees. The five largest programs of study among community colleges nationwide during school year 2001-2002 were, in descending order, Liberal Arts and Sciences, Nursing, General Studies, Business Administration and Management, and Business (General).[9]

Table 2.3 summarizes information about the costs and sources of financial aid at the Opening Doors colleges. The six institutions vary dramatically in this regard. The average student at Chaffey paid just $264 for tuition and fees in school year 2002-2003. In comparison, the average student at Kingsborough, Lorain, and Owens paid between $2,000 and $2,800. The current national norm for in-state tuition and fees at two-year public institutions is $1,927.[10]

Table 2.3 also presents data that illustrate the proportions of students receiving various forms of financial aid across the Opening Doors colleges. These statistics are indicative of how many low-income students these colleges serve, though they also reflect the expense of attending a particular institution. Nationally, 57 percent of full-time, first-time students at two-year colleges receive some form of financial aid.[11] In comparison, 69 percent of the full-time, incoming students at Kingsborough — which has the highest costs among the Opening Doors colleges — receive some form of grant or loan. This percentage is just over a third at Chaffey and Delgado, which have the lowest tuition and fees of the Opening Doors sites.

The largest sources of student aid at the Opening Doors colleges are federal and state or local grants. This is also the case for community college students nationwide,[12] although the proportions of full-time students receiving aid vary considerably by location. New York and California have large and relatively generous state tuition assistance programs. Thus, for example, Kingsborough reports that 62 percent of its full-time students receive state or local grants, while just 2 percent of full-time students at Delgado receive such aid. Institutional grants are generally less common, although 15 percent of the students at Lorain receive them. Student

[9]U.S. Department of Education, 2003b. This government report adopts the 1990 version of the Classification of Instructional Programs.

[10]U.S. Department of Education, 2003b.

[11]U.S. Department of Education, 2003c.

[12]U.S. Department of Education, 2003c.

**The Opening Doors Demonstration**

**Table 2.3**

**Comparison of Community College Costs and Financial Aid, School Year 2002-2003**

| | Kingsborough | Lorain | Owens | Delgado[a] | Louisiana Technical-West Jefferson | Chaffey |
|---|---|---|---|---|---|---|
| Published in-state tuition and fees ($) | 2,780 | 2,457[b] | 2,080 | 1,404 | 484 | 264 |
| Federal grant aid received (%) | 59 | 29 | 36 | 30 | 23 | 18 |
| State/local grant aid received (%) | 62 | 23 | 34 | 2 | 0 | 33 |
| Institutional grant aid received (%) | 1 | 15 | 6 | 5 | 0 | 3 |
| Student loan aid received (%) | 4 | 9 | 25 | 18 | 0 | 0[c] |
| Any financial aid received[d] (%) | 69 | 47 | 57 | 36 | 77 | 35 |
| Average federal grant aid ($) | 3,260 | 2,437 | 2,909 | 1,796 | 3,938 | 2,841 |
| Average state/local grant aid ($) | 1,753 | 983 | 1,076 | 702 | 0 | 554 |
| Average institutional grant aid ($) | 200 | 1,741 | 1,624 | 571 | 0 | 877 |
| Average student loan aid ($) | 2,583 | 2,128 | 2,811 | 1,400 | 0 | 1,783 |

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

NOTES: Financial aid data refer to full-time, first-time, degree/certificate-seeking undergraduate students.

[a]Delgado's figures include the City Park, West Bank, and Charity School of Nursing campuses. Opening Doors is operating at the main campus (City Park) and West Bank.

[b]Lorain College offers an in-district rate of $2,038.

[c]Zero due to rounding. A small number of students (less than 1 percent) receive student loans.

[d]Any financial aid includes grants, loans, assistantships, scholarships, fellowships, tuition waivers, tuition discounts, veteran's benefits, employer aid (tuition reimbursement), and other monies (other than from relatives/friends) provided to students to meet expenses.

loans are also a prevalent source of financial aid and are more frequently received among students at Owens and Delgado. The average amounts of these grants and loans vary across the colleges (Table 2.3).

Table 2.4 presents budget data for Fiscal Year 2002/03 for the traditional community colleges participating in Opening Doors. These are complex institutions with large budgets, ranging from over $66 million for Lorain to over $92 million for Kingsborough. Of the traditional community colleges, Lorain and Kingsborough have the smallest and largest student bodies, respectively. For all the colleges, state appropriations are an important source of revenue. Local appropriations are significant as well for Chaffey, Lorain, and Kingsborough. Also, tuition and fees account for sizable portions of total revenue, especially for Owens and Delgado. In contrast, tuition and fees account for relatively little of the total revenue at Chaffey, where the cost of attendance is exceptionally low. Federal grants and contracts are another significant source of revenue for these colleges, particularly at Kingsborough, Lorain, and Delgado. National data suggest that these colleges are generally representative of two-year public institutions in the United States, where the largest sources of revenue are state and local appropriations, followed by tuition and fees.[13]

As Table 2.4 shows, the largest category of expenditures for these traditional community colleges is instruction — accounting for between 35 percent and 47 percent of total expenditures — and these statistics parallel the national average for two-year public institutions (43 percent).[14] However, the mixture of expenditures is unique from campus to campus, and this variation is telling with regard to the institution's priorities. For example, Lorain devoted 16 percent of its expenditures to public service,[15] and Delgado appropriated 19 percent of its total to scholarships and fellowships. Finally, the colleges' expenditures per FTE student are suggestive of their capacity to hire more faculty and staff and build a resource-rich campus. Four of the traditional community colleges in Opening Doors are roughly comparable in their expenditures per student, ranging from $7,691 (Delgado) to $8,977 (Kingsborough). Lorain stands apart from the others, at $11,716 per FTE student, but this difference may be accounted for partly by the fact that the college offers substantial noncredit instruction, customized training, and business services to individuals who are not enrolled and thus are not reflected in FTE statistics. Lorain also counts some $2.9 million in scholarship funds as part of its total expenditures.

[13]U.S. Department of Education, 2003c.

[14]U.S. Department of Education, 2003c.

[15]Public service includes conferences, institutes, general advisory services, reference bureaus, and similar services provided to particular sectors of the community. This function includes expenses for community services, cooperative extension services, and public broadcasting services.

**The Opening Doors Demonstration**

**Table 2.4**

**Comparison of Community College Revenues and Expenses, Fiscal Year 2002/03**

| | Kingsborough | Lorain | Owens | Delgado[a] | Chaffey |
|---|---|---|---|---|---|
| **Revenues** | | | | | |
| Total revenues ($) | 92,613,640 | 66,694,790 | 83,441,420 | 77,504,232 | 82,925,086 |
| Tuition and fees (%) | 15.4 | 14.6 | 21.3 | 21.3 | 7.8 |
| Federal operating grants and contracts (%) | 1.3 | 1.8 | 2.8 | 32.5 | 9.3 |
| State operating grants and contracts (%) | 9.7 | 3.3 | 0.4 | 3.8 | 10.7 |
| Local/private operating grants (%) | 2.3 | 6.3 | 0.0 | 0.5 | 0.0 |
| Sales and services of auxiliary enterprises (%) | 1.5 | 8.3 | 8.0 | 0.4 | 6.8 |
| Other operating sources (%) | 1.4 | 2.1 | 22.2 | 0.4 | 0.0 |
| State appropriations (%) | 34.4 | 25.6 | 37.7 | 38.1 | 24.3 |
| Local appropriations (%) | 15.5 | 20.1 | 0.0 | 0.0 | 33.5 |
| Federal nonoperating grant (%) | 17.6 | 15.0 | 0.0 | 0.0 | 0.0 |
| Capital appropriations (%) | 0.0 | 0.0 | 7.1 | 1.7 | 2.4 |
| All other sources[b] (%) | 0.9 | 2.8 | 0.5 | 1.1 | 5.0 |
| **Expenses** | | | | | |
| Total expenses and deductions[c] ($) | 92,284,641 | 60,748,767 | 79,241,154 | 74,961,031 | 78,521,066 |
| Instruction (%) | 43.9 | 31.1 | 41.3 | 47.4 | 35.4 |
| Research (%) | 0.4 | 0.0 | 0.2 | 0.0 | 0.0 |
| Public service (%) | 1.8 | 16.4 | 3.5 | 0.0 | 0.8 |
| Academic support (%) | 2.8 | 5.5 | 5.1 | 4.8 | 9.2 |
| Student services (%) | 11.1 | 7.1 | 7.0 | 8.8 | 7.4 |
| Institutional support (%) | 15.7 | 9.0 | 12.4 | 6.7 | 17.4 |
| Operations maintenance (%) | 11.3 | 6.1 | 10.2 | 10.7 | 6.1 |
| Scholarships and fellowships expenses (%) | 12.0 | 11.6 | 8.4 | 18.9 | 0.5 |
| Nonoperating expenses and deductions (%) | 0.0 | 0.4 | 0.0 | 0.3 | 22.3 |
| All other expenses[d] (%) | 1.0 | 12.8[e] | 11.9 | 2.4 | 0.8 |
| Total expenses per full-time equivalent (FTE) enrollment ($) | 8,977 | 11,716 | 8,472 | 7,691 | 7,969 |

(continued)

**Table 2.4 (continued)**

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

NOTES: Rounding may cause slight discrepancies in sums and differences. GASB reporting standards were used for each depicted institution. The Louisiana Technical College-West Jefferson campus budget is aggregated into the statewide technical college system. Consequently, comparative institutional budget information is not possible.

[a]Delgado's figures include the City Park, West Bank, and Charity School of Nursing campuses. Opening Doors is operating at the main campus (City Park) and West Bank.

[b]All other sources include capital grants, other revenues and additions, gifts, investment income, other nonoperating revenue, state nonoperating grants, and federal appropriations.

[c]Revenues and expenses do not match due to yearly budget changes.

[d]All other expenses include auxiliary enterprises, depreciation and other operating expenses, and deductions.

[e]Lorain's figure for all other expenses does not include other operating expenses and deductions.

## The Opening Doors Interventions

The Opening Doors demonstration is examining the implementation and effects of the four interventions described below.

### Learning Communities and a Book Voucher (Kingsborough Community College)

Since the mid-1990s, Kingsborough Community College in Brooklyn — a branch of the City University of New York (CUNY) — has been operating small learning community programs for students who require English as a Second Language (ESL) services or who are majoring in specific occupational fields. As Tinto describes, learning communities, in their most basic form, are a kind of co-registration or block scheduling that enables students to take courses together.[16] With the Opening Doors project, Kingsborough has begun offering the learning communities to a much larger number of incoming freshmen who are enrolling full time in an associate's degree program.

The Opening Doors Learning Communities consist of three classes that groups of approximately 25 freshmen take together as a block during their first semester. The classes include (1) a college orientation course, taught by a counselor, that covers college policies, study skills, time management, and other topics; (2) an English course, most often at the developmental level; and (3) a standard college course such as sociology, history, or health. The instructors for each block are expected to coordinate their syllabi before the semester begins and to meet regularly during the semester to discuss student progress. Students in the Opening Doors Learning Communities also receive vouchers that cover the cost of their books at the student store, and they have access to a dedicated tutor who can assist them with English and other course assignments.

Students in the comparison group are not assigned to the Learning Communities and do not take classes that are intentionally linked. Rather, these students take whatever courses are available, and they are likely to encounter different students in every class. Comparison group students can take the college orientation class and an English course if they wish, but they are not required to do so (although most students will eventually need to take English to graduate). Comparison group students do not receive book vouchers. Finally, comparison group students do not have a dedicated tutor, although they can access tutoring on their own initiative through the college's tutoring labs.

[16]Tinto, 1998.

### Enhanced Advising Services and a Scholarship (Lorain County Community College and Owens Community College)

Lorain County Community College and Owens Community College are testing a similar program that offers students enriched counseling and guidance services and a modest scholarship. Unlike Kingsborough — which is targeting only incoming freshmen who enroll full time — the Opening Doors projects at Lorain and Owens are targeted to new and continuing students who have completed no more than 12 credits and who have shown indications of academic difficulties, as determined by low grades or withdrawal from courses. The program is open to students who enroll half time and full time. The linchpin of the program is an advisor with whom students are expected to meet at least once a month for two semesters, to discuss academic progress and any other issues that may be affecting their schooling. The advisor is expected to carry a caseload of no more than 125 students and to be available evenings. In contrast, students in the comparison group see whichever advisor is available and rarely meet with an advisor more than once a semester. The regular advising staff do not normally keep weekend or evening hours. Moreover, the ratio of counseling staff to students who are not enrolled in Opening Doors is about 1 to 1,000.

To support the work of the Opening Doors advisors and to make them more effective in meeting students' needs, Lorain and Owens have designated staff members from other student services departments — including financial aid and career services — to function as a team.[17] In practical terms, this means that at least one staff member from each of these departments has agreed to serve as a point person for the Opening Doors program and to meet with students who are referred by the Opening Doors advisor. Students in the comparison group can access these same departments, but they generally do this on their own rather than through referrals.

Finally, for each of two consecutive semesters, students in the Opening Doors groups at Lorain and Owens are given a $150 scholarship that they can use for any purpose. The scholarship payments are approved by the academic advisor and are made at the beginning and middle of the semester, as a way of ensuring that students stay in contact with the advisor. Students in the comparison group do not receive these scholarships.

[17] At Owens, the Opening Doors team also includes staff members from the student records and academic tutoring departments and from the bursar's office.

### A Scholarship Predicated on Academic Performance (Delgado Community College and Louisiana Technical College-West Jefferson Campus)

In 2001, Louisiana was one of eight states that began using federal welfare dollars to help low-income adults access higher education through the state's community and technical college system. Specifically, the state offered a tuition waiver and child care assistance to low-income parents who had a high school diploma or General Educational Development (GED) certificate and who met other eligibility requirements. After learning of research findings on the positive effects of programs that offered welfare recipients a financial incentive for moving into work,[18] state officials became interested in the idea of a similar program that offered a financial incentive to low-income parents for completing postsecondary education.

The Opening Doors project at Delgado Community College[19] and at the Louisiana Technical College-West Jefferson campus is offering a $1,000 scholarship to parents with children under age 18 whose family incomes are below 200 percent of the federal poverty level. Students do not need to be on welfare to qualify. The scholarship is targeted mainly to new students, though current students who are shifting from developmental to college-level courses are also eligible. The scholarship is tied to academic performance: An initial payment of $250 is made after students enroll at least half time; a second payment of $250 is made after midterms, for students who remain enrolled at least half time and earn at least a C average; and a final payment of $500 is made after students have passed all their courses. The scholarship is in addition to any other financial aid that students receive and is offered for up to two semesters, for a total of up to $2,000. Each student is assigned to a counselor and is required to meet with him or her at the beginning and middle of each semester to discuss academic goals and progress. The counselors are expected to monitor the students' grades and arrange tutoring or other help as needed. The counselor-to-student ratio ranges from approximately 1 to 100 or 150 at Delgado's campuses and from 1 to 75 at the Louisiana Technical College-West Jefferson campus.

The most obvious difference for students in the comparison group is that they do not receive a $1,000 scholarship; nor do they have an assigned counselor who monitors their academic performance. The general counseling staff at the Delgado campuses are each responsible for 500 to 750 students. The Louisiana Technical College-West Jefferson campus does not employ any counselors outside the Opening Doors project.

[18]Bloom and Michalopoulos, 2001; Morris et al., 2001.

[19]Delgado Community College has three campuses: City Park, West Bank, and the Charity School of Nursing. Only the City Park and West Bank campuses are participating in the Opening Doors study.

### Basic Academic Instruction and College Survival Skills for Students on Probation (Chaffey College)

Chaffey College initiated a campuswide Basic Skills Transformation Project in fall 2000. The primary outcome of this project was to establish writing, math, reading/ESL, and multidisciplinary "Success Centers" that offer individualized and small group instruction to students in each of these areas and also provide resources and instructional support to faculty. The Success Centers are operated by full-time faculty and a large group of tutors so that students can get help either by scheduling an appointment with a staff member or by dropping in from early morning through late evening on weekdays and during designated times on weekends. Computer-assisted instruction and other resource materials are also available in the Success Centers. Research by the college suggests that there is a strong, positive correlation between the amount of time that students spend in the Success Centers and their academic performance.

Chaffey's Opening Doors program is targeted to probationary students who have attempted at least 12 credits but have completed no more than 30 credits and either have not completed at least half the courses in which they enrolled or have an overall grade point average below 2.0. If the students are receiving financial aid, their ability to continue receiving grants and loans may be in jeopardy. The Opening Doors program will, for the first time, require probationary students to take a College Success lecture course that will teach them skills in time management, note-taking and test-taking, critical thinking, and communication. The instructor will be a member of the college's counseling department who will meet with the students individually, assess their academic abilities, and help them create an educational plan that includes a weekly requirement to attend one of the college's Success Centers in the area in which they are weakest — reading, writing, or math. An instructor at the Success Centers will be designated as a contact person who will monitor students' progress and help them raise their academic skill levels. In addition, in their second semester in Opening Doors, students will take a one-unit course to continue the counseling and guidance through the applied learning experience.

The comparison group will continue to be treated as probationary students are currently treated. Specifically, students will receive a letter informing them that they are at risk of dismissal from the college and of losing their financial aid (if they are receiving it), and they will be urged to attend a Student Success Seminar for probationary students and to see an academic counselor. Chaffey's large counseling caseloads — a ratio of 1 counselor to approximately 1,500 students — make it difficult for most students to receive individualized or intensive assistance from the counseling office. Comparison group members can enroll in the college's general guidance course and can utilize the Success Centers if they choose, but they will not be required to do so and will not be assigned to a specific counselor or Success Center staff member who will work with them over time. The college's experience indicates that most students on probation do not take advantage of either the college's guidance courses or the Success Centers' resources.

## Chapter 3

# The Design of the Opening Doors Evaluation

The Opening Doors sites differ in terms of which students they are targeting and what services they offer, but they have the same objectives: to improve students' chances of acquiring a postsecondary education and earning a degree, with the longer-range objective of helping students find rewarding careers and lead productive, satisfying lives. The evaluation team — led by MDRC, members of the MacArthur Research Network on the Transitions to Adulthood,[1] and researchers from Princeton University[2] — will examine how and to what extent students achieve these objectives in each site. Specifically, the team will examine the program's *implementation* (operations and service delivery), its *impacts* (differences between outcomes for the program group and the comparison group), and its *costs*. The primary evaluation questions follow:

- How have the colleges designed their Opening Doors programs, and how do these programs operate in practice? What are the differences between the educational experiences, student services, and financial assistance provided to the program group and the comparison group?
- What are the short-term impacts of Opening Doors on students' academic performance in community college, as measured by certificate or degree completions, semester-to-semester persistence, grades, and other outcomes?
- What are the long-term impacts of Opening Doors on students' persistence in community college or other institutions of higher education? Specifically, what are the program impacts on certificate or degree completion and on transfer to four-year colleges and universities?
- What are the long-term impacts of Opening Doors on students' experiences in the labor market, social behaviors and networks, health, and civic engagement?
- What are the costs of running Opening Doors programs, and do the long-term economic benefits outweigh the costs?

[1]The names and affiliations of the members of the MacArthur Research Network on the Transitions to Adulthood are listed in the Acknowledgments. For more information about the network, see the Web site: http://www.pop.upenn.edu/transad/.

[2]Christina H. Paxson of Princeton University is leading the component of this evaluation that is focused on health outcomes. She is also a member of the MacArthur Research Network on Socioeconomic Status and Health.

The evaluation will address the last two questions only if Opening Doors leads to significant, positive impacts on educational outcomes. This is because advancement in college and the attainment of degrees are presumed to be the primary pathways to improvements in job quality, wages, and other measures of personal development and well-being. Moreover, benefit-cost analysis is worth doing only if the programs lead to positive effects.

The community colleges participating in the Opening Doors study are responsible for identifying students who meet the targeting criteria for their programs (discussed in Chapter 4). Eligible students are informed about the study — including random assignment to program and comparison groups — and are given the option to participate. Students who give their consent are asked to complete a baseline form that asks about their educational background and goals, current and recent employment experiences, and sociodemographic characteristics. In addition, they are asked to complete a short questionnaire that assesses their physical and mental health, including their smoking and drinking habits. In appreciation for their time, students receive a $20 gift card for use at a local store or the public transit system. Baseline data will be used to describe the sample and to identify which subgroups benefit most and least from the Opening Doors interventions — for example, younger or older students, or those who begin the study with higher or lower educational aspirations. The random assignment to program and comparison groups is performed by MDRC; afterwards, the colleges are responsible for notifying students of their research status and providing them with the appropriate services for their designated group.

## Components of the Evaluation

### The Implementation Study

The Opening Doors implementation study has several objectives:

- To describe the institutions where the evaluation is taking place and the interventions that are being tested
- To understand the differences in the nature or level of services that are provided to the program group and the comparison group
- To compare and contrast the sites in terms of important institutional and operational dimensions
- To document the experiences of students, faculty, and staff in their own words

All these objectives are in pursuit of a larger goal: to explain how the Opening Doors programs are leading to changes in students' lives. Equally important, the implementation research will be used to identify lessons that policymakers and college administrators across the

country can use in designing and operating better programs to help community college students achieve their goals.

The implementation study will rely principally on qualitative data gathered during field visits to each participating college. Specifically, the evaluation team will conduct open-ended interviews with college administrators, faculty, and staff throughout the study to learn how the college is serving both the program group and the comparison group. In addition, Opening Doors classes, counseling sessions, and other program activities will be observed. At selected campuses, in-depth qualitative interviews will be conducted with students in the study sample — including members from both groups — to gain a deeper understanding of factors on and off campus that facilitate or hinder their progress in school.

The implementation study will incorporate quantitative data as well. Most important are the 12- and 36-month surveys, which will include numerous questions for program and comparison group members about their classroom experiences, interactions with college faculty and staff, use of college services, and so forth. The surveys will be conducted over the telephone or in person, and a small financial incentive will be offered to achieve a minimum response rate of 80 percent. The 12-month survey has been developed to emphasize questions about students' educational experiences at the community college, both in and out of the classroom and on and off campus, and asks about the nature and quality of students' interactions with faculty, staff, and fellow students.

At selected campuses, the 12- and 36-month surveys may be supplemented by brief questionnaires or attendance records for sample members. Data on institutions — including enrollments, student and faculty characteristics, course offerings, revenues, and expenditures — will be obtained through the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS). Finally, MDRC is partnering with the Community College Survey of Student Engagement (CCSSE) to administer a survey to a randomly selected group of faculty at several of the Opening Doors colleges.[3] The faculty survey will provide measures of the instructional climate at the college, including how much and in what ways teachers interact with students, the nature of assignments they give, the time they spend teaching and preparing for class, and their perceptions of the college's support for instructional activities.

### The Impact Study

In order to measure the impacts of Opening Doors programs on individuals, the evaluation will collect data on outcomes for sample members for at least three years. (If program ef-

[3]Kingsborough, Lorain, Delgado, Louisiana Technical-West Jefferson, and Chaffey community colleges have agreed to participate in the faculty survey.

fects are large and significant — and if sufficient funds are raised — the analysis may be extended beyond three years.) In the short term, the evaluation team will look for differences in community college course enrollment, student persistence, and degree completion between members of the program group and the comparison group. In the long term, the focus will be on program effects on attainment of community college certificates or degrees, transfer to four-year colleges and universities, employment and earnings, family structure (including marriage and childbearing), peer networks and social connections, health, and civic engagement.

Two primary data sets will be used to measure the impacts of Opening Doors programs. First, MDRC will acquire community college transcripts and other administrative records data for all program and comparison group members. The transcripts will be analyzed to determine what courses students take, what grades they earn, how many semesters they enroll, and whether they complete a certificate or degree.[4] MDRC will also acquire financial aid data from the colleges to determine the amount of scholarships and loans received by program and comparison group members. Finally, state unemployment insurance records will be accessed in order to track sample members' employment and earnings.

The second data source for the impact study will comprise the follow-up surveys administered at 12 and 36 months after random assignment. In addition to the questions about students' educational experiences, the 12-month survey will touch on other aspects of life — employment experiences, transfer to other colleges or universities, personal relationships, social networks, health, attitudes, and civic behavior — that Opening Doors may influence in the short term. The 36-month survey will devote even greater attention to this latter set of issues, as changes in the more distal outcomes are not expected until after students have had an opportunity to complete their community college studies.

Appendix A describes the types of analyses that will be conducted to determine program impacts. The primary analytic method will use standard statistical tests to determine whether average outcomes for program and comparison group members are significantly different. In addition, as detailed in Appendix A, nonexperimental methods may be used to supplement the experimental analysis. For example, because participation in Opening Doors is voluntary, some members of the program group may not participate in or receive Opening Doors services. Nonexperimental techniques provide a way to estimate program effects on those sample members who receive the full Opening Doors treatment.

[4]Although transcripts will be available for every sample member, one limitation is that they will not reflect courses taken or degrees earned at institutions other than the current community college. MDRC will rely on surveys to capture such information.

### The Cost Study

MDRC will gather financial data from the colleges to document the overall cost of Opening Doors and the cost of individual program components, such as the scholarships and counseling services. These figures will be compared with the expenses incurred for each college's standard services, in order to determine the added costs of running Opening Doors. The cost data provide a useful measure of the intensity of each site's interventions and will inform policymakers and college administrators who want to expand or replicate Opening Doors programs. If the evaluation team detects significant impacts in the Opening Doors sites, it will also conduct a benefit-cost analysis to determine whether the financial benefits of the program — such as increased earnings for participants, increased tax payments for participants who go to work, reduced public assistance benefits, and so on — are greater than the expense of operating the interventions. The benefit-cost analysis will take into account the perspectives of participating colleges and students, governments and other funding agencies, and society at large.

## Strengths and Limitations of the Evaluation's Design

The literature reviewed in Chapter 1 suggests that postsecondary education and training programs run by community colleges have the potential to help young adults increase their educational attainment, obtain better employment, and achieve other positive outcomes. To date, however, there is no hard evidence to back such claims. All the postsecondary studies cited are nonexperimental; they reveal only positive *associations* between college attendance and earnings or other outcomes. The literature also does not show whether changes in curriculum, student services, and financial aid policies at community colleges help low-income adults who have low levels of skills do better than they otherwise would. The use of random assignment methods in community college research — for the first time, to the authors' knowledge — will demonstrate whether the Opening Doors interventions yield benefits over and above the programs and services that the colleges normally provide. The random assignment design will also enable the evaluation team to determine whether there are *causal relationships* between community college attendance and employment, earnings, or other outcomes (for example, increased social connections, improved health status, and greater civic participation). To the extent that such impacts are detected, the study will lend considerable force to arguments in favor of increased public and private investments in interventions like Opening Doors, specifically, and in community colleges, generally.

Because the interventions that are being tested in Opening Doors were developed with a random assignment research design in mind, they attempt to create a sharp contrast between the services received by the program group and the comparison group. And because students face many different challenges in achieving their academic goals, the interventions also tend to have multiple components. Such bundled treatments, however, make it difficult to know whether all

the components of the intervention are equally important. For example, if Kingsborough Community College's Learning Communities program (described in Chapter 2) is effective, should that be attributed to the block scheduling of courses, the specific inclusion of a college orientation course, the book voucher, the tutor, or all the above?

The implementation and impact studies will shed light on such questions by examining whether all the program components are actually delivered as intended and by measuring differences between program and comparison group members in actual service receipt or program participation. As described in Appendix A, instrumental variables models will be used to estimate the effect of the "treatment on the treated." In order to learn precisely the added value of each program component, however, the experiment would need to compare alternative interventions side by side — for instance, randomly assigning students to subgroups that receive block scheduling only or block scheduling plus a book voucher. Such a design was considered but rejected, out of concern that the colleges could not meet the necessary sample sizes and would have difficulty running two interventions simultaneously. Nevertheless, future studies should consider such methods to disentangle the effects of individual program components.

The intensive and generous nature of the Opening Doors interventions — particularly in the sites offering scholarships — raises another question: Are these "boutique" programs that can benefit only a few students, or can they be operated on a large scale? In most cases, the Opening Doors interventions grew out of programs or ideas that college staff had before the study began. College administrators in each of the sites have expressed a strong commitment to continuing or expanding the programs if the results are positive. In some cases, colleges may be able to reallocate existing resources to keep their Opening Doors programs going; in other cases, to serve more students, they may be able to tap such external funding sources as Temporary Assistance for Needy Families (TANF) and workforce development monies.

While MDRC has led random assignment studies in a number of institutional contexts, community colleges have posed some particular challenges for recruiting a research sample. Community colleges often allow students to register in several ways, including coming to the admissions office, mailing in applications, or signing up for classes on-line. Such procedures make it difficult to provide information about the study to everyone who might be eligible and to obtain their written consent to participate, particularly when hundreds (or thousands) of incoming students show up immediately before school starts. Of the Opening Doors colleges that have begun random assignment thus far, Kingsborough's enrollment process was the most centralized — students had to enroll on campus and in person on designated days — which provided MDRC and college staff with an efficient means of informing most eligible students about the study. The Ohio and Louisiana colleges had no comparable central intake point, thereby necessitating the use of phone calls, mailings, flyers, and news media to inform eligible students about the Opening Doors program. Such efforts were extremely labor intensive and

had to be repeated every semester. Whether the message did not register or students were too busy or simply were not interested, the marketing efforts at these colleges have not yielded the numbers of students that were hoped for, and the buildup of research sample groups has proceeded more slowly than desired.

The fact that participation in the Opening Doors study is voluntary raises another important limitation. On the face of it, there seems little reason for eligible students *not* to participate in the research — the risks are minimal, and the possible benefits (particularly in sites that offer a scholarship to the program group) seem quite large — and yet some students in every site have declined the offer. The number of eligible students that chose not to participate at Kingsborough appears very small, again because nearly everyone who qualifies for the study hears about it during a centralized registration process. By contrast, at the Ohio and Louisiana sites, students learn about the study only if they make time to meet with Opening Doors staff or to attend an orientation session. It seems likely that the students who attended such a meeting or orientation differ from those who did not attend, in terms of motivation, need for services, or other characteristics. While the random assignment process ensures that the students who give their consent to participate in the study are similar at baseline, it is impossible to know how the research sample may differ from students who never attended an Opening Doors orientation or who declined to participate in the study.

In large measure, the limitations of the study reflect the challenges of conducting social research in real institutional settings. Recruitment and enrollment for the Opening Doors study have to fit into the colleges' regular enrollment processes. Neither MDRC nor the colleges want to create obstacles that will keep students from taking classes or receiving regular services — even if it means a less "pure" test than is optimal from a research standpoint. In this regard, Opening Doors represents a test case for conducting random assignment studies on community college campuses. Just as studies of welfare reform programs in the early 1980s led to more sophisticated social experiments in the late 1980s and 1990s,[5] so may Opening Doors yield methodological and programmatic lessons that will inform the design of future community college evaluations.

[5]See, for example, Hamilton, 2002.

## Chapter 4

# The Opening Doors Target Population and Research Sample

From its inception, Opening Doors has been generally concerned with the needs and experiences of low-income community college students age 34 and younger, and each of the four study sites demonstrates that focus. However, as the individual sites have worked to refine their interventions and identify adequate research samples, each has also developed specific eligibility criteria for Opening Doors that make it unique. For example, Kingsborough targets only first-time, incoming freshman who attend school full time; Chaffey concentrates only on students who have been placed on academic probation; the Ohio site excludes continuing students who have completed more than 12 credits; and the Louisiana site focuses only on parents. Appendix B provides an overview of the criteria for program participation, by site.

The enrollment of students into the Opening Doors research began in summer 2003 at Kingsborough, followed by Lorain in fall 2003, the Louisiana colleges in winter 2004, and Owens in summer 2004. Chaffey will begin random assignment in fall 2005. MDRC negotiated sample recruitment goals with each college, based on an assessment of the numbers of students the colleges could reasonably serve in Opening Doors over a one- or two-year time frame and on the numbers needed to detect policy-relevant impacts. For example, a sample of 1,000 students — evenly divided between the program group and the comparison group — would allow the evaluation team to determine whether the Opening Doors intervention led to roughly a 2 to 5 percentage point increase in graduation rates. This "minimum detectible effect" varies with the anticipated graduation rate among comparison group members at each site. A somewhat larger sample of 1,400 students would enable the researchers to detect a smaller percentage point increase in graduation rates, ranging approximately from 1.5 to 4.0 percentage points. MDRC encouraged the colleges to aim for samples of 1,400 or more if possible, since this will also make it easier to detect effects among subgroups of the sample defined by gender, age, prior educational experience, or other characteristics. Kingsborough agreed to a sample goal of 1,400; the Ohio colleges agreed to a sample goal of at least 1,350; and the Louisiana colleges and Chaffey College each agreed to a sample goal of 1,000.

Table 4.1 presents descriptive statistics on the research samples for the institutions that had begun enrolling sample members at the time that this report was being written. While studying these numbers, it should be kept in mind that sample enrollment is still in progress. Readers are also reminded that, at each college, half the sample will receive the Opening Doors

**The Opening Doors Demonstration**

## Table 4.1

## Characteristics of Research Sample Members at Baseline, by Intervention and Site

| Characteristic | New York | Ohio | | | Louisiana | | |
|---|---|---|---|---|---|---|---|
| | Kingsborough | **Both Colleges** | Lorain County | Owens | **Both Colleges** | Louisiana Technical | Delgado |
| Gender (%) | | | | | | | |
| Men | 43.8 | **20.2** | 20.3 | 19.8 | **5.9** | 12.4 | 4.4 |
| Women | 56.2 | **79.8** | 79.7 | 80.2 | **94.1** | 87.6 | 95.6 |
| Age (%) | | | | | | | |
| 17-20 years old | 80.1 | **21.5** | 16.1 | 34.9 | **17.3** | 10.4 | 18.9 |
| 21-25 years old | 14.3 | **37.4** | 39.6 | 31.8 | **36.7** | 29.2 | 38.4 |
| 26-30 years old | 3.1 | **26.3** | 27.9 | 22.4 | **30.5** | 35.7 | 29.3 |
| 31-34 years old | 2.4 | **14.8** | 16.4 | 10.9 | **15.5** | 24.7 | 13.4 |
| Average age (years) | 19.6 | **24.9** | 25.4 | 23.6 | **25.3** | 26.9 | 24.9 |
| Marital status (%) | | | | | | | |
| Married, living with spouse | 2.3 | **18.7** | 20.5 | 14.1 | **8.6** | 14.5 | 7.3 |
| Married, living apart from spouse | 1.1 | **5.2** | 5.9 | 3.6 | **10.7** | 17.8 | 9.1 |
| Unmarried, living with partner | 7.0 | **17.8** | 19.3 | 14.1 | **5.9** | 5.3 | 6.1 |
| Unmarried, not living with partner | 89.6 | **58.3** | 54.3 | 68.2 | **74.8** | 62.5 | 77.6 |
| Race/ethnicity (%) | | | | | | | |
| Hispanic | 20.2 | **12.7** | 14.2 | 8.9 | **2.6** | 1.3 | 2.9 |
| Black | 37.4 | **23.4** | 20.8 | 30.0 | **84.5** | 82.8 | 84.9 |
| White | 28.1 | **56.3** | 57.7 | 52.6 | **11.0** | 13.9 | 10.3 |
| American Indian or Alaskan Native | 0.2 | **0.5** | 0.4 | 0.5 | **0.5** | 1.3 | 0.3 |
| Asian or Pacific Islander | 7.4 | **0.6** | 0.4 | 1.1 | **0.5** | 0.7 | 0.5 |
| Other | 6.7 | **6.5** | 6.4 | 6.8 | **0.9** | 0.0 | 1.1 |

(continued)

**Table 4.1 (continued)**

| Characteristic | New York | Ohio | | | Louisiana | | |
|---|---|---|---|---|---|---|---|
| | Kingsborough | **Both Colleges** | Lorain County | Owens | **Both Colleges** | Louisiana Technical | Delgado |
| Number of children (%) | | | | | | | |
| None | 92.5 | **26.5** | 17.8 | 47.9 | **0.0** | 0.0 | 0.0 |
| One | 5.4 | **32.7** | 36.7 | 22.9 | **49.9** | 37.3 | 52.8 |
| Two | 1.1 | **21.7** | 24.1 | 15.6 | **28.7** | 34.0 | 27.5 |
| Three or more | 1.1 | **19.1** | 21.4 | 13.5 | **21.3** | 28.8 | 19.6 |
| Among sample members with children: | | | | | | | |
| Average age of youngest child (years) | 3.1 | **3.4** | 3.3 | 3.6 | **3.1** | 3.6 | 3.0 |
| Average household size (excluding roommates or boarders) | 3.8 | **3.5** | 3.5 | 3.6 | **3.6** | 3.8 | 3.6 |
| Household receiving any of the following benefits (%): | | | | | | | |
| Unemployment/dislocated worker benefits | 3.7 | **6.5** | 6.5 | 6.3 | **4.8** | 6.5 | 4.4 |
| Supplemental Security Income (SSI) or disability | 9.9 | **10.8** | 10.3 | 12.1 | **13.6** | 15.7 | 13.1 |
| Cash assistance or welfare (TANF) | 5.9 | **15.5** | 16.4 | 13.2 | **10.4** | 12.4 | 9.9 |
| Food stamps | 8.0 | **38.3** | 40.8 | 32.1 | **62.6** | 58.8 | 63.5 |
| None of the above | 79.8 | **50.2** | 47.7 | 56.3 | **29.4** | 29.4 | 29.4 |
| In public or Section 8 housing (%) | 12.8 | **18.7** | 19.2 | 17.4 | **17.7** | 20.9 | 16.9 |
| Financially dependent on parents (%) | 74.5 | **14.3** | 10.3 | 24.5 | **16.7** | 13.1 | 17.5 |
| Ever employed (%) | 78.5 | **99.4** | 99.8 | 98.4 | **97.7** | 97.4 | 97.8 |
| Among those ever employed: | | | | | | | |
| Number of months employed at least half time in the past year (%) | | | | | | | |
| None | 24.9 | **21.1** | 21.8 | 19.1 | **17.5** | 15.1 | 18.0 |
| 1-3 months | 24.5 | **16.0** | 17.4 | 12.2 | **21.2** | 19.2 | 21.7 |
| 4-6 months | 21.3 | **13.6** | 13.2 | 14.4 | **17.0** | 17.8 | 16.8 |
| 7-9 months | 9.4 | **10.4** | 10.7 | 9.6 | **10.2** | 11.6 | 9.8 |
| 10-12 months | 19.9 | **39.0** | 36.8 | 44.7 | **34.2** | 36.3 | 33.7 |

(continued)

**Table 4.1 (continued)**

| Characteristic | New York | Ohio | | | Louisiana | | |
|---|---|---|---|---|---|---|---|
| | Kingsborough | **Both Colleges** | Lorain County | Owens | **Both Colleges** | Louisiana Technical | Delgado |
| Number of hours worked per week at current or last job (%) | | | | | | | |
| 1-10 hours | 13.4 | **4.7** | 4.7 | 4.9 | **4.8** | 4.8 | 4.8 |
| 11-20 hours | 23.4 | **19.8** | 17.9 | 24.9 | **14.5** | 11.6 | 15.2 |
| 21-30 hours | 28.4 | **25.3** | 25.5 | 24.9 | **25.0** | 21.8 | 25.8 |
| 31-40 hours | 25.6 | **36.3** | 37.0 | 34.6 | **46.7** | 49.7 | 46.0 |
| More than 40 hours | 9.2 | **13.7** | 14.9 | 10.8 | **9.0** | 12.2 | 8.2 |
| Average hourly wage at current or last job[a] ($) | 7.20 | **7.98** | 8.15 | 7.57 | **7.09** | 7.43 | 7.01 |
| Currently employed (%) | 36.3 | **55.7** | 54.0 | 59.9 | **51.6** | 53.2 | 51.3 |
| Among those currently employed: | | | | | | | |
| Number of hours worked per week in current job (%) | | | | | | | |
| 1-10 hours | 9.9 | **4.4** | 4.7 | 3.6 | **4.0** | 5.0 | 3.7 |
| 11-20 hours | 24.9 | **23.0** | 21.7 | 25.9 | **17.2** | 16.3 | 17.4 |
| 21-30 hours | 30.7 | **26.0** | 26.8 | 24.1 | **23.7** | 22.5 | 24.0 |
| 31-40 hours | 25.9 | **35.2** | 33.9 | 38.4 | **48.9** | 48.8 | 48.9 |
| More than 40 hours | 8.6 | **11.5** | 13.0 | 8.0 | **6.2** | 7.5 | 5.9 |
| Average hourly wage at current job[a] ($) | 7.50 | **8.12** | 8.28 | 7.79 | **7.17** | 7.33 | 7.14 |
| Respondent or household member receiving (%): | | | | | | | |
| Unemployment/dislocated worker benefits | 3.5 | **4.1** | 3.9 | 4.4 | **1.7** | 2.5 | 1.5 |
| Supplemental Security Income (SSI) or disability | 6.7 | **6.8** | 7.0 | 6.2 | **9.4** | 11.1 | 9.0 |
| Cash assistance or welfare (TANF) | 3.2 | **9.2** | 9.0 | 9.7 | **5.6** | 8.6 | 4.8 |
| Food stamps | 7.4 | **27.9** | 30.1 | 23.0 | **56.0** | 51.9 | 57.1 |
| Highest grade completed (%) | | | | | | | |
| 8th grade or lower | 1.3 | **1.2** | 1.0 | 1.6 | **0.7** | 1.3 | 0.6 |
| 9th grade | 3.9 | **4.3** | 4.6 | 3.6 | **3.3** | 1.9 | 3.6 |
| 10th grade | 7.5 | **5.8** | 6.7 | 3.6 | **4.7** | 3.9 | 4.8 |
| 11th grade | 10.6 | **10.0** | 12.2 | 4.7 | **7.0** | 5.2 | 7.4 |
| 12th grade | 76.8 | **78.6** | 75.5 | 86.5 | **84.3** | 87.7 | 83.6 |

(continued)

**Table 4.1 (continued)**

| Characteristic | New York | Ohio | | | Louisiana | | |
|---|---|---|---|---|---|---|---|
| | Kingsborough | **Both Colleges** | Lorain County | Owens | **Both Colleges** | Louisiana Technical | Delgado |
| Diplomas/degrees earned (%) | | | | | | | |
| High school diploma | 73.5 | **75.5** | 72.0 | 84.4 | **77.7** | 80.5 | 77.0 |
| GED | 26.9 | **23.3** | 27.0 | 14.1 | **19.1** | 18.8 | 19.1 |
| Occupational/technical certificate | 2.2 | **15.5** | 15.7 | 15.1 | **10.1** | 15.6 | 8.8 |
| Date of high school graduation/GED receipt (%) | | | | | | | |
| During the past year | 71.1 | **16.4** | 13.5 | 23.6 | **11.0** | 6.8 | 12.1 |
| Between 1 and 5 years ago | 22.5 | **31.6** | 30.8 | 33.5 | **32.2** | 23.6 | 34.3 |
| Between 5 and 10 years ago | 3.8 | **28.7** | 29.5 | 26.7 | **33.0** | 30.4 | 33.6 |
| More than 10 years ago | 2.6 | **23.3** | 26.2 | 16.2 | **23.8** | 39.2 | 20.1 |
| Main reason for enrolling in college (%) | | | | | | | |
| To complete a certificate program | 2.9 | **8.7** | 11.1 | 2.6 | **13.6** | 22.9 | 11.5 |
| To obtain an associate's degree | 28.4 | **52.4** | 55.6 | 44.3 | **56.3** | 41.2 | 59.8 |
| To transfer to a 4-year college/university | 50.7 | **21.6** | 20.7 | 24.0 | **15.6** | 7.2 | 17.5 |
| To obtain/update job skills | 11.4 | **12.7** | 9.8 | 19.8 | **13.3** | 26.1 | 10.3 |
| Other | 8.1 | **6.3** | 4.8 | 9.9 | **6.3** | 8.5 | 5.7 |
| Completed any college courses/credits (%) | 8.4 | **45.1** | 47.9 | 38.0 | **32.5** | 26.8 | 33.9 |
| Among those who completed any college courses/credits: | | | | | | | |
| Average number of courses completed | 2.4 | **3.2** | 3.1 | 3.4 | **4.3** | 5.8 | 4.1 |
| First person in family to attend college (%) | 32.5 | **36.8** | 37.4 | 35.3 | **42.4** | 46.3 | 41.5 |
| Working personal computer in home (%) | 80.1 | **67.9** | 68.9 | 65.4 | **50.2** | 54.9 | 49.1 |
| Own or have access to a working car (%) | 27.1 | **90.3** | 90.6 | 89.6 | **70.0** | 77.1 | 68.3 |
| Language other than English spoken regularly in home (%) | 46.4 | **8.7** | 9.9 | 5.7 | **7.5** | 9.8 | 6.9 |
| U.S. citizen (%) | 71.7 | **99.0** | 99.0 | 99.0 | **98.9** | 98.1 | 99.1 |
| Respondent and parents born in U.S.[b] (%) | 24.3 | **91.9** | 92.5 | 90.5 | **93.8** | 92.2 | 94.2 |

(continued)

**Table 4.1 (continued)**

| Characteristic | New York | Ohio | | | Louisiana | | |
|---|---|---|---|---|---|---|---|
| | Kingsborough | **Both Colleges** | Lorain County | Owens | **Both Colleges** | Louisiana Technical | Delgado |
| Respondent and parents not born in U.S.[b] (%) | 39.4 | **1.6** | 1.3 | 2.6 | **2.1** | 4.6 | 1.5 |
| Respondent only born in U.S.[b] (%) | 24.0 | **1.2** | 0.6 | 2.6 | **0.7** | 0.0 | 0.8 |
| Sample size = 2,643 | 1,147 | **670** | 478 | 192 | **826** | 154 | 672 |

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

NOTES: Calculations for this table used all available data for the 2,643 sample members who completed a BIF and were randomly assigned through August 31, 2004. The Opening Doors study has not begun recruiting sample members from Chaffey College.

Louisiana Technical College refers only to the West Jefferson campus.

Missing values are not included in individual variable distributions. Distributions may not add to 100 percent because of rounding.

[a]These calculations are presented only for respondents who reported earning an hourly wage.

[b]"Born in U.S." includes both the United States and Puerto Rico.

intervention and half will receive the regular college services. As noted earlier, the random assignment process ensures that there are few or no statistically significant differences in the baseline characteristics of program and comparison group members.

## Kingsborough's Research Sample

Fitting with the site's focus on first-time freshmen, the Kingsborough sample is predominantly young, unmarried, and without children. As shown in Table 4.1, almost three-quarters are financially dependent on their parents.[1] Small minorities of this sample reside in households that receive government benefits — such as Temporary Assistance for Needy Families (TANF), food stamps, or Social Security disability benefits — suggesting that this may be a low-income population but not one in which most individuals live below poverty. Approximately one-third of these students are the first in their family to attend college.

Because Kingsborough is targeting new freshmen, it is not surprising that the large majority of the sample (71 percent) earned a high school diploma or a General Educational Development (GED) certificate within the past year. Half the students who have enrolled to date are planning to transfer to a four-year college or university, and more than a quarter (28 percent) are working toward an associate's degree or certificate. Over one-third of the students (36 percent) are currently employed, although about two-thirds of these employed students work part time, that is, 30 hours or less per week.

About 30 percent of the Kingsborough sample are not U.S. citizens. Moreover, almost 40 percent are from families in which both the students and their parents are foreign born. Therefore, it is not surprising that almost half come from homes where a language other than English is spoken regularly. These foreign-born students and their families come from many regions of the world, but most commonly they are from Latin America and the Caribbean (21 percent), the Commonwealth of Independent States[2] (10 percent), and Asia (6 percent).[3] However, one criterion for program eligibility in Kingsborough is that students not be taking courses in English as a Second Language (ESL), so presumably these students are comfortable working in English. Finally, Table 4.1 shows that this sample has slightly more women than men and that the most prevalent racial/ethnic groups are, in descending order, blacks or African-Americans (37 percent), non-Hispanic whites (28 percent), and Hispanics (20 percent).

[1]Due to rounding, some numbers in the text differ slightly from the corresponding numbers in Table 4.1.

[2]This region comprises Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

[3]These statistics reflect baseline survey data that are not presented in Table 4.1.

## Ohio's Research Sample

Table 4.1 shows that the Ohio sample consists primarily of women (80 percent) who have delayed their entrance to college, with many bearing and raising children during their late teens and early twenties. The average age is 24.9 years, and 74 percent have at least one child. Over 40 percent have two children or more. The average age of the youngest child is 3.4 years. A large majority of this sample (76 percent) are unmarried. Only 16 percent completed high school or a GED certificate in the past year, and over half (52 percent) did so five or more years ago. In contrast to the Kingsborough sample, relatively few sample members in Ohio (14 percent) are financially dependent on their parents. A majority (56 percent) are currently employed, and these are almost evenly split between part- and full-time workers. A large proportion of the Ohio sample (52 percent) are planning to work toward an associate's degree, and more than a fifth (22 percent) are working toward transferring to a four-year institution.

More than half of the Ohio sample are non-Hispanic whites, although there are also significant numbers of blacks or African-Americans (23 percent) and Hispanics (13 percent). Virtually all are U.S. citizens, and the vast majority (92 percent) are at least the second generation of their families to be born in the United States. Therefore, it is not surprising that, for the large majority (91 percent), English is the only language spoken regularly in the home.

Finally, nearly half the students in the Ohio sample (45 percent) have completed some college, but the average number of courses completed is only three, in keeping with the site's requirement that students have not previously completed more than 12 credits. In addition, they come from very low-income backgrounds, with significant proportions reporting that they or members of their household currently participate in government programs designed for people living below the poverty level, in particular the Food Stamp Program (38 percent) and TANF (16 percent). Almost a fifth of the sample (19 percent) live in public housing. Many of these students (37 percent) are the first person in their family to attend college.

## Louisiana's Research Sample

The Louisiana sample that has been recruited to date suggests that the site is reaching its targeted population. First and foremost, all the sample members are parents — and are about evenly split between those who have a single child and those who have more than one (Table 4.1). The Louisiana students are almost exclusively female (94 percent), and the large majority (81 percent) are unmarried; only 9 percent are married and living with a spouse. In addition, they are poor. Fewer than one-third (30 percent) come from a household in which neither they nor anyone else participates in at least one of the government programs listed in Table 4.1, and more than 17 percent live in public housing. Over 40 percent are the first in their family to pursue a college education, and just about half have a working personal computer at home.

Heavily represented in the Louisiana sample are students who have delayed college entry — many of them women who presumably have done so partly in order to bear and rear children. Well over half of them finished high school or a GED certificate at least five years ago. A majority (52 percent) are currently employed, and most of those (56 percent) work full time. A large proportion of these sample members (56 percent) are planning to work toward an associate's degree. More than a quarter (27 percent) are seeking to complete a certificate program or to gain job-specific skills, which reflects in part that one of the Louisiana colleges is primarily a technical and vocational institution.

Finally, the Louisiana sample predominantly comprises students who are either black or African-American (85 percent). Most of the remaining sample members are non-Hispanic white students (11 percent). Nearly all are U.S. citizens, and the vast majority (94 percent) were born in the United States of parents who were also born here. Similarly, for 93 percent, English is the only language spoken regularly in the home.

## Chapter 5

# The Opening Doors Publications and Dissemination Plan

The Opening Doors evaluation team will produce a series of documents over the course of the demonstration and will adopt multiple strategies to communicate the evaluation's lessons as efficiently and as broadly as possible. Because it takes considerable time to enroll the research sample and follow up sample members, MDRC will make special efforts along the way to share findings in the form of briefings and memos. Targeted audiences include higher education policymakers at the state and federal levels, philanthropic foundations, higher education researchers, and professionals from community colleges and workforce development agencies. All publications will also be posted on MDRC's Web site (www.mdrc.org). At present, the following documents are planned. The projected years of publication are shown in parentheses and may change as the study progresses.

- ***Building Learning Communities: Early Results from the Opening Doors Demonstration at Kingsborough Community College* (2005).** Kingsborough was the first site to begin random assignment for the Opening Doors study, and it is the first to have impact findings. This report describes the program, examines educational outcomes (including grades, course completion rates, and semester-to-semester levels of student persistence) for the first cohorts to enroll, and presents data from qualitative interviews conducted with a small group of students during the first year of the study.

- **Research Briefs on the Ohio Colleges, the Louisiana Colleges, and Chaffey College (2005-2006).** As soon as sufficient numbers of students have enrolled in the study and enough time has elapsed to examine short-term academic impacts, the evaluation team will produce research briefs on each college's (or site's) findings. The briefs will describe the programs and present early effects on students' grades, course completion rates, and semester-to-semester persistence.

- **Young Adults' Engagement in Community College Programs (2006).** This report will be based on in-depth, one-on-one interviews with 40 students between the ages of 18 and 25 who are enrolled at Kingsborough and Lorain. The focus of the interviews will be on factors that contribute to or impede students' academic progress. Both program and comparison group students will be included in the research sample.

- **Program Implementation and 12-Month Impacts (2006-2007).** This report will use field research and survey data to describe how the Opening Doors programs were implemented in each site and what differences in educational and other experiences were found between the program and comparison groups. The report will examine impacts on educational outcomes at 12 months after random assignment and will examine early impacts — if any — on students' employment, peer networks, health, and civic engagement.

- **Program Impacts and Costs at 36 Months (2009).** This report will examine the longer-term impacts of Opening Doors in the lives of community college students and will present findings from the cost study.

In sum, the Opening Doors demonstration will produce a considerable body of evidence on the operations and effects of interventions designed to help community college students achieve their academic, employment, and personal goals. The study will also provide insights into the opportunities and challenges facing low-income young adults who attend community colleges. As the first random assignment test of programs in community colleges, the Opening Doors evaluation will set a new standard for research rigor within this sector. MDRC and its collaborators welcome advice and support on how to maximize the learning opportunities from the study and how to ensure that the evaluation's lessons help to strengthen educational policies and programs for community college students nationwide.

Appendix A

# Analytic Methods for Estimating the Impacts of Opening Doors

**Cecilia Rouse**
**Lashawn Richburg-Hayes**

The primary analytic method to determine program impacts will be comparing average outcomes for sample members randomly assigned to the program group or the comparison group, using standard statistical tests such as the t-test and chi square test. More formally, the plan is to estimate ordinary least squares (OLS) regressions of the form

$$E_i = \alpha + \beta R_i + \varepsilon_i \quad (1)$$

where $E_i$ represents the (eventual) educational attainment of individual *i* or other (eventual) outcomes, such as civic participation

$R_i$ indicates whether the individual was randomly assigned to an Opening Doors intervention

$\varepsilon_i$ is a random error term

$\alpha$ and $\beta$ are coefficients to be estimated

The coefficient of interest is $\beta$, as it represents the effect of assignment to the Opening Doors intervention on the outcome of interest. Because the students are randomly assigned to receive the treatment (or not), the background characteristics (including unobserved characteristics, such as motivation and determination) of the two groups are about the same, on average. As a result, ordinary least squares estimation of $\beta$ will provide an unbiased estimate of the "intent to treat" effect, and it is not necessary to control for other student characteristics.[1] Note that the intent to treat estimates the effect, on the outcome in question, of assigning a student to the treatment group. While it estimates the gains that a policymaker can realistically expect to observe from implementing the program (since one cannot fully control for whether students actually take advantage of the enriched services and financial aid), it does not necessarily represent the effect of the reforms for those who actually use them.[2]

[1]The "intent to treat" refers to the mean difference between the outcomes of the program and comparison groups in experiments where strict compliance to receiving the treatment (or not receiving it) cannot be ensured (Bloom, Forthcoming, 2005). Since participation in Opening Doors is voluntary, one cannot be assured that all program group members will receive the intervention. In other words, there may be no-shows, and such no-shows reduce the experimental contrast by reducing the difference between the program group and the comparison group with respect to exposure to treatment. Therefore, while the analysis will not be able to answer "What is the average effect of the intervention if all members of the target group receive it?" it can answer "What is the average effect of making the intervention available to its target group members?" However, including baseline characteristics may reduce the variability of the point estimates, so the analysis will include models both with and without such characteristics.

[2]While the measure of the intent to treat is policy-relevant, it is a complex combination of the treatment effects for participants and the effects for nonparticipants. Further, it is not the way that most people think about program effectiveness. Usually, program effectiveness is thought of in terms of how the treatment affects the people who receive it. This more intuitive notion of an impact is often referred to as the average effect of "treatment on the treated."

Since the Opening Doors interventions are voluntary, at least some noncompliers can be expected. These mainly include program group members who do not receive the intervention (no-shows), but they could also include comparison group members who are mistakenly served by the program (crossovers). When there are noncompliers, the average effect of the treatment on the treated must be estimated through nonexperimental techniques.[3] Two such techniques will be used, depending on the nature of noncompliance. If noncompliance is solely due to no-shows among the program group, Bloom's no-show correction technique will be used; it allocates the difference between the outcomes for program group members and comparison group members to the fraction of the program group members who received the treatment.[4] While this technique works well for noncompliance due to no-shows, it cannot be used in situations of noncompliance due to crossovers. This is because people who receive the treatment may differ from those who do not, in ways that are related to the outcomes of interest.

Therefore, the analysis will also estimate instrumental variables (IV) models in which a dummy variable indicating whether the student was randomly assigned to an Opening Doors intervention is used as an instrument for truly receiving the Opening Doors services or scholarships.[5] The random assignment is correlated with actual participation in Opening Doors, but it is uncorrelated with the error term in the outcome equation, since it was determined randomly. Under plausible assumptions, these models yield consistent estimates of the effect of "treatment on the treated." In this case, the outcome equation is represented by models such as

$$E_i = \alpha' + \gamma OD_i + \varepsilon'_i \qquad (2)$$

where $OD_i$ indicates whether the individual actually received an Opening Doors intervention (or the level of intervention)

$\gamma$ provides a consistent estimate of the intervention(s) in question on the outcome

In addition, if assignment to the Opening Doors interventions has the effect of increasing educational attainment among participants (as hypothesized in Equation 1; that is, $\beta > 0$), then the causal effect of additional community college credits on student outcomes will be estimated. Initial placement into an Opening Doors intervention will be used as an instrumental

[3]When there are no-shows or crossovers, one cannot confidently determine which control group members are the counterparts of the program group members who receive the treatment. Therefore, nonexperimental techniques are necessary.

[4]Bloom, 1984.

[5]This technique — used by Angrist, Imbens, and Rubin (1996) — is called the "local average treatment effect." Using the random assignment to Opening Doors as an instrument for actual treatment receipt solves the problem of estimating the average effect of the treatment on the treated when there is noncompliance, because randomization leaves the $OD_i$ variable uncorrelated with every variable at the time of random assignment, including the error term $\varepsilon$.

variable for educational attainment. In this case, Equation 1 provides the first-stage equation, and the outcome equation of interest is

$$Y_i = \alpha'' + \delta E_i + \varepsilon''_i \quad (3)$$

where $Y_i$ represents the outcome in question (for example, labor market wages, health, civic engagement) and the other variables are as defined above

In this case, the estimate of $\delta$ provides a consistent estimate of the causal effect of additional educational attainment on the outcome in question.

**Appendix B**

# Characteristics That Define Students' Eligibility to Participate in Opening Doors, by Community College

**The Opening Doors Demonstration**

## Appendix Table B.1

## Characteristics That Define Students' Eligibility to Participate in Opening Doors, by Community College

| Criterion | Kingsborough | Lorain County and Owens | Delgado and Louisiana Technical-West Jefferson | Chaffey College |
|---|---|---|---|---|
| Age | 17-34 | 18-34 | 18-34 | 18-34 |
| Household income | Not screened[a] | Below 250 percent of federal poverty level | Below 200 percent of federal poverty level | Below 250 percent of federal poverty level[b] |
| Enrollment status | | | | |
| New or continuing | Only new freshmen | Both | Both | Only continuing |
| Half time or full time | Only full time | Both | Both | Both |
| Other factors | English as a Second Language (ESL) students are excluded. | Continuing students must not have completed more than 12 credits and need to show indications of academic difficulties (determined by low grades or withdrawal from courses). | Students must be a parent of at least one dependent under age 19; must have a high school diploma or GED and pass a college entrance exam; must not have an occupational certificate or college degree. | Students must be on probation due to a grade point average below 2.0 or completing less than half of credits attempted. |

NOTES: [a] The majority of students who are enrolled at Kingsborough live in low-income households, so the Opening Doors study did not require additional income screening.

[b] Chaffey's income criteria for the Opening Doors study are still under discussion.

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# About MDRC

MDRC is a nonprofit, nonpartisan education and social policy research organization. We are dedicated to learning what works to improve the well-being of low-income people. Through our research and the active communication of our findings, we seek to enhance the effectiveness of social policies and programs. MDRC was founded in 1974 and is located in New York City and Oakland, California.

MDRC's current projects focus on welfare and economic security, education, and employment and community initiatives. Complementing our evaluations of a wide range of welfare reforms are new studies of supports for the working poor and emerging analyses of how programs affect children's development and their families' well-being. In the field of education, we are testing reforms aimed at improving the performance of public schools, especially in urban areas. Finally, our community projects are using innovative approaches to increase employment in low-income neighborhoods.

Our projects are a mix of demonstrations — field tests of promising program models — and evaluations of government and community initiatives, and we employ a wide range of methods to determine a program's effects, including large-scale studies, surveys, case studies, and ethnographies of individuals and families. We share the findings and lessons from our work — including best practices for program operators — with a broad audience within the policy and practitioner community, as well as the general public and the media.

Over the past quarter century, MDRC has worked in almost every state, all of the nation's largest cities, and Canada. We conduct our projects in partnership with state and local governments, the federal government, public school systems, community organizations, and numerous private philanthropies.