Do Community Colleges Respond to Local Needs?

Leigh, Duane E., Gill, Andrew M.

Published by W.E. Upjohn Institute

Leigh, Duane E. and Andrew M. Gill.
Do Community Colleges Respond to Local Needs? Evidence from California.
Project MUSE. muse.jhu.edu/book/17787.

_for additional information about this book_
https://muse.jhu.edu/book/17787

_for content related to this chapter_
https://muse.jhu.edu/related_content?type=book&id=647238
Summary and Policy Implications

This monograph provides an empirical study of the labor market responsiveness of California community colleges. To define what we mean by labor market responsiveness, we borrowed from a definition recently advanced by the U.S. Department of Education’s Community College Labor Market Responsiveness Initiative (MacAllum and Yoder 2004). As described in Chapter 1, this definition emphasizes four key aspects of labor market responsiveness. The first is that responsive community colleges react quickly to changing educational and workforce development needs at the local level. Second, these needs span the educational gamut from remedial training to transfer-oriented academic programs. The third aspect is that local labor markets are dynamic because of changes on the supply side as well as on the demand side. Fourth, the dynamic nature of labor markets requires responsive community colleges to look ahead to anticipate future needs of students and employers.

Our study selects for analysis what we believe to be the two major, and policy relevant, sources of change at the local level—one on the supply side and the other on the demand side. On the supply side, we focus on the impact of massive changes in number and national origin of immigrants to the United States over the past 40 years. In contrast to earlier periods in which immigrants were typically European, since the mid-1960s most immigrants have originated from Latin America and Asia. As newcomers to this country, many immigrants need education and training to gain proficiency in English and to acquire the educational background and occupational skills required for higher-level jobs. Community colleges have traditionally served as the point of entry for immigrants into the U.S. system of higher education.

On the demand side, the major source of change is constantly shifting labor demand conditions brought about by ever improving technology and the competitive pressures generated by globalization. Community colleges are the principal institutional provider of training services for youth and adults looking for employment or seeking to upgrade their skills to retain an existing job or qualify for a better job.
Emphasis on these two sources of change leads us to explore the following two questions of contemporary policy concern:

Research Question 1: Are community colleges meeting the education and training needs of current and recent generations of immigrants?

Research Question 2: Do community colleges respond to changing demand conditions by providing occupational training programs that produce skills marketable in the local economy?

In the context of the first question, education and training needs are typically examined in terms of access and outcomes. As described in Chapter 2, California has historically led the nation in access to higher education through the open-admission and low-tuition policies of its community college system and the convenient locations of community college campuses. In our view, the more important question is whether current and recent generations of immigrants benefit from a successful outcome of their community college experiences. Specifically, we compare the educational outcomes of Latino and Asian community college students to those of white students. Chapter 1 emphasized that the Latino-white gap in educational attainment is an important national problem. Latino students are also found to lag behind whites in the community college outcome variables we measure. Our purpose is to identify those barriers at the community college level that appear to underlie the Latino-white gap in educational attainment.

On the other hand, the educational attainment of Asian community college students often exceeds that of white students. For Asians, consequently, we seek to identify those factors that contribute to their superior outcomes. Our goal is to learn from the experience of Asians those lessons that may be useful for helping community colleges better meet the educational needs of other immigrants.

Turning to Research Question 2, we develop a novel methodology to examine the matches, at the local labor market level, between the occupational distribution of skills supplied by community colleges and the occupational distribution of skills demanded by employers. On the supply side, we look at the distribution of vocational credits completed classified by occupational fields of study. Our demand-side measure is based on employment projections classified by the same occupational codes. We define a measure termed \textit{responsiveness} to assess the quality
of matches at the local labor market level. Our goal is to better characterize community colleges that are labor market responsive.

We begin by reviewing why we chose data for California community colleges for our empirical analysis. Then in the following two sections, we discuss our results for Research Questions 1 and 2 and point out some policy implications. The last section contains some final thoughts.

**CALIFORNIA FIRST-TIME-FRESHMEN DATA**

Conceptually, we could explore our two research questions using any one of a number of data sets containing a nationally representative sample of individuals, only a small fraction of which would have enrolled in a community college at some point in their lives. However, our empirical analysis requires us to have information on a large number of community college students—a larger number than is available in any commonly used national data set. In terms of answering Research Question 1, a large number of community college student observations is needed so that we have enough Latino and Asian students for analysis. Research Question 2 also requires data on a large number of community college students because we need a sufficient number of students enrolled in each community college to accurately measure differences across colleges in occupational fields of study.

The alternative to a nationally representative data set is administrative data for the community college system of a particular state. We take this alternative, and the state we selected is California. As outlined in Chapter 1, there are several reasons for this choice. These include California’s status as the state that receives more immigrants than any other state, the fact that the California Community College System (CCCS) is by far the largest in the nation, and the massive size of the state’s economy. A final, very practical, reason is that we were able to obtain from the Chancellor’s Office student records for all first-time freshmen (FTF) attending any CCCS campus in 1996. This cohort of freshmen students is followed over a six-year interval. The large size of the CCCS means that we have over 300,000 observations in our data extract.
From the perspective of answering Research Question 1, FTF data offer a number of advantages. One advantage is that the data provide a rich source of information on individual student characteristics. These include educational background and citizenship status, academic goals upon entering college, academic progress while attending college, and outcomes of students’ college experience. In addition, a valuable feature of FTF data is that not only is information available on major categories of race or ethnicity, but detailed categories of national origin are distinguished within the broad Latino and Asian categories. The large number of observations in the FTF data set is crucial for taking full advantage of this level of detail on race or ethnicity. We also know from FTF data the particular CCCS community college attended. This information allows us to do two things. First, we can attach characteristics of the college attended to the record for each student; and, second, we can estimate college-specific fixed effects on educational attainment.

At the same time, there are also some disadvantages of FTF data. One of these, which we have noted at various places in the monograph, is that common measures of family background such as family income, parents’ education, and number of siblings are not available in student records. Measures of family background are typically found in national data sets. A second disadvantage, in comparison to the use of national data, is that we are unable to study the decision process that leads some students to attend a community college, while others enroll in four-year institutions and still others opt for immediate employment.

Turning to Research Question 2, FTF data supply information on the credits students complete classified by major field of study along with, as noted, the college attended. This allows us to construct the distribution of new occupational skills supplied over the 1996-2002 period by each community college. As just noted, a large number of observations, such as is available in the FTF data set, is essential to obtain a reasonably accurate representation of the occupational skills supplied by each of the 106 CCCS colleges examined. On the demand side, we match the occupational distribution of skills supplied with employment projections by county using the same breakdown of occupations. These county-level employment projections are provided by the Labor Market Information Division (LMID) of California’s Employment Development Department. Our methodology consists of matching a college’s
distribution of new skills supplied with the occupational distribution of projected new jobs in the county in which the college is located.

RESPONSIVENESS TO MEETING THE NEEDS
OF IMMIGRANTS

Overview of Results

The first thing to note about our data is the high incidence of first-generation immigrants among California community college students. In Chapter 5, we use information on possession of a foreign high school diploma and U.S. citizenship status to estimate that over 30 percent of Latino students and nearly 60 percent of Asian students are first-generation immigrants. At the two-digit level of detail on ethnicity examined in Chapter 6, we find that about 60 percent of students with a national origin of Central American or South America are immigrants. This compares to about 27 percent of Mexicans. Asian students are even more likely to be immigrants than Latinos, and we report in Chapter 6 considerable variation in immigrant status among Asians broken down by ethnicity. Those most likely to be immigrants are students from Southeast Asia (Cambodians, Laotians, and Vietnamese). About three-quarters of Southeast Asian students are immigrants. At the other extreme, immigrants comprise only about one-third of Filipino students.

Our three community college outcome variables include success in transferring to a four-year college, receipt of an AA degree, and total credits earned over a student’s community college experience. Chapter 5 reports that Latino students lag behind whites on each of these measures, with a particularly sizable gap observed for transfer rates. Since Latinos attend postsecondary educational institutions at a rate comparable to whites but disproportionately enroll in community colleges, their lower transfer rate is critical in explaining Latinos’ lower overall level of educational attainment. On the other hand, Asians exhibit a superior performance in comparison to whites on each of our three outcome variables.

We attempt to account for the observed Latino-white and Asian-white gaps in these community college outcomes by looking for differ-
ences in four categories of explanatory variables measured at the individual student level. These categories of explanatory variables include

- background variables, including citizenship status;
- financial need;
- educational goals; and
- community college performance measures.

In addition, we are able to take into account differences in the institutional characteristics of the college attended.

As reported in Chapter 5, factors likely to be helpful in explaining the Latino-white gap in educational outcomes include a lower high school graduation rate (including both U.S. and foreign high school diplomas), a lower average number of courses attempted, less interest in ultimately transferring to a four-year college as opposed to other goals, and poorer academic performance while attending a community college. One factor likely to work in favor of Latinos is their younger average age. At the institutional level, we also observed that community colleges attended by Latinos, in comparison to those attended by whites, tend to be less transfer oriented, to have student bodies that are generally less well prepared for college, and to be located in less affluent communities.

Despite a high proportion of first-generation immigrants, Asian students are at least comparable to white students in terms of many of our explanatory variables. This includes possession of a high school diploma (again including both U.S. and foreign diplomas) and community college progress variables. In addition, Asians tend to be younger, to carry higher average course loads, and to be more interested as entering freshmen in transferring to a four-year college. Community colleges attended by Asian students are closer to UC and CSU campuses and tend to be located in more prosperous communities.

Chapter 5 assesses the importance of these differences in explaining Latino-white and Asian-white gaps in educational outcomes. Looking first at Latinos, we find that controlling for differences across students in our explanatory variables reduced the observed Latino-white gap in transfer rates from about 7.5 percentage points to about 2 percentage points. Smaller observed gaps in AA degree receipt and total credits earned appear to be completely accounted for by our model. The most
important category of explanatory variables in terms of explaining observed Latino-white gaps in outcomes is community college progress variables. In turn, we suggest that the relatively slow academic progress of Latino students is due in large part to weaker academic preparation before entering college, a deficiency that often requires taking a higher proportion of basic skills courses while in college.

Breaking down Latinos by ethnic background, our results in Chapter 6 for Mexican students echoed those for all Latinos, a finding that is not surprising since Mexicans are by far the largest category of Latino students. Similarly, we are able to explain most of the observed gaps in transfer rates of Central American and South American students. (Gaps in AA degree receipt and total credits earned are quite small.) It is troubling to note that the transfer rate gap between Mexicans and whites is as large or larger than the gaps observed for Central and South Americans, despite the fact that Mexican students are much less likely to be first-generation immigrants.

Overall, we are less successful in explaining Asian-white gaps in outcome variables, especially for student transfers. Of the observed gap of about 11 percentage points favoring Asians in transfer rates, adjusting for differences in our explanatory variables resulted in a standardized gap of about 8 percentage points. We do a much better job in explaining the Asian-white gap in total credits earned. Factors that make the most difference in reducing the observed gap in credits earned are the “financial need” of students, which we measure by an older age and average course load attempted per semester, and background variables. Asian students tend to be younger than whites and to carry higher average course loads.

Disaggregating Asian students by ethnicity, we are able to substantially explain observed negative transfer gaps (i.e., gaps favoring whites) for Cambodians and Laotians, and observed positive gaps for Filipinos and the Japanese. We do less well in explaining positive, and typically larger, observed gaps for Chinese, Indian, and Korean students. And we are not successful at all in explaining the observed gap of 9 percentage points for the Vietnamese. Note that the Chinese, Filipinos, and Vietnamese are numerically the largest categories of Asian students enrolled in CCCS colleges.

Once we control for student-level variables, we find that differences in college-level characteristics make little difference in explaining ei-
ther Latino-white or Asian-white gaps in transfer rates. Nevertheless, the importance of institutional characteristics is a question that receives attention in the literature (see, for example, Bailey, et al. 2005), and we pursue this question by estimating individual college fixed effects. Based on evidence of large individual college fixed effects, we explore a hypothesis suggested by Borjas (1999) that the clustering in a college of students of a particular ethnic background might affect that group’s overall transfer rate. Our cross-college regression analysis reveals strikingly opposite results for Latinos and Asians. Clustering is found to negatively affect the transfer rate of Latinos, while positively affecting the transfer rate of Asians. We suggest that the Asian result may help in explaining the transfer rate gap favoring Vietnamese students over whites, a gap we are otherwise unable to explain. Immigration statistics indicate that Vietnamese immigrants in California are concentrated in Orange and Santa Clara Counties, and our data suggests that Vietnamese community college students are similarly clustered in a handful of community colleges located in these two counties.

We also isolate on two subpopulations of students likely to be of particular interest to policymakers: first-generation immigrants and high school dropouts. As expected, first-generation immigrant students are heavily Latino and Asian. Among Asians, outcome measures for first-generation immigrant students are found to be roughly the same as those for nonimmigrants. That is, despite disadvantages including lack of proficiency in English and unfamiliarity with American culture, Asian first-generation immigrant students do very well in California community colleges. On the other hand, first-generation immigrant Latinos perform at a lower level than nonimmigrant Latinos. In fact, first-generation immigrant Latino students lag behind immigrant students of all other ethnic or racial backgrounds. Leinbach and Bailey (2006) reach the same conclusion for foreign-born Latinos attending the City University of New York—a finding they term both important and disturbing.

Our most striking finding concerning high school dropouts is that, regardless of race or ethnicity, dropouts do much more poorly in terms of our outcome variables than high school graduates. This lack of success is understandable given their individual attributes that include an older age, less interest in transferring, and a lighter average course load with a higher proportion of basic skills courses. As noted in Chapter 5, California community college officials are bracing for an influx of
entering students who did not complete high school because they failed the California High School Exit Exam. Our findings do not directly address this concern since they apply to an older population of dropouts than the high school students currently at risk of failing the exit exam. Nevertheless, it is safe to suggest that, should this influx of high school dropouts materialize, community colleges will be required to allocate more resources to teaching basic skills classes. To improve the educational outcomes measured here, in addition, increased effort to retain students through counseling and mentoring programs is likely to be necessary. In what follows, we consider further the design of such programs in the context of assisting Latino students.

**Policy Implications**

Our results indicated that the low level of community college outcomes for Latino students compared to whites is primarily the result of two factors: 1) poorer performance while attending college, which, in turn, is due to 2) weaker academic background on entering college. California community colleges maintain an open-admissions policy for state residents. Hence, college administrators have little leeway in terms of the academic preparation of new students admitted. There is an opportunity, however, for community colleges to improve the academic performance of their Latino students. Indeed, the President’s Advisory Commission (2003) on Educational Excellence for Hispanic Americans issues just such a challenge. Five of the six recommendations of the Advisory Commission are specific to K-12 education. The only recommendation that applies directly to postsecondary institutions is that colleges increase their graduation rates by developing retention programs that keep Latino students in school.

What form might these retention programs take? Our cross-college clustering results provide some general guidance for answering this question. As noted, we find that a clustering of Latino students reduces the adjusted transfer rate of Latinos in that college, where the adjusted transfer rate abstracts from differences in individual student characteristics. The clear implication is that retention programs need to be concentrated in colleges with large Latino enrollments. At the federal level, this point was recognized in 1992 legislation that makes Hispanic-serving institutions eligible for special grants and related assistance.
Hispanic-serving institutions are defined as colleges with student enrollment that is 25 percent or more Latino. Thus, predominantly Latino colleges receive equal treatment with traditionally African American colleges and universities.

Also important is the diametrically opposite effect that, for Asians, clustering increases the adjusted transfer rate. In Chapter 6, we consider three explanations for this result. One possibility is that in the absence of family background variables, clustering of Asians captures unobserved differences in family income. This explanation may have traction for Indian, Japanese, and Chinese students, ethnic groups that enjoy remarkably high average family incomes in California. It makes less sense, however, for other Asian groups, including the Vietnamese, for whom average family income falls well below the average for all Asians, which, in turn, slightly exceeds average family income for whites.

A second explanation seems especially applicable to Vietnamese students because of the high proportion that are first-generation immigrants, and, among immigrants, the high proportion that are refugees. The idea is that immigrants who face a high cost of returning to their homelands, such as refugees, have a strong incentive to invest in U.S. schooling. For Asian parents, this explanation appears to be closely related to the “Asian culture” concept by which parents pass on to their children their strong belief that success in the United States depends on educational attainment.

Going beyond Asian culture is a closely related third explanation based on the observation that immigrants often settle in ethnic enclaves. The argument is that close association with unrelated individuals of the same ethnicity imparts to students valuable “ethnic capital” that contributes to their success in the U.S. labor market.

We suggest that the concept of ethnic capital carries over for community college students in the form of a positive peer effect. That is, exposure to students of the same ethnic background who are academically highly motivated encourages a student to set a high standard for him- or herself. Conversely, exposure to peers of the same ethnicity with generally lower levels of motivation may cause a student to lower his or her expectations. This suggests that colleges should offer the kinds of mentoring, academic and career counseling, and peer support programs that might counteract such negative peer effects.
Laden (1999) provides some useful illustrations of programs that support the educational aspirations of Latino students. These include the following:

- Miami-Dade Community College in Florida has developed a system designed to reduce first-generation college students’ bewilderment and sense of intimidation. New students are greeted warmly upon arrival, given admissions forms, and invited to sit at a table to fill out forms with the help of a bilingual staff member. Once enrolled, students’ attendance and academic progress are monitored, with the goal of heading off problems and maintaining morale and aspirations.

- In California, community colleges including Evergreen College and San Jose City College offer students special articulation transfer contracts with four-year state institutions intended to make the transfer process more seamless.

- Nationally, a number of community colleges maintain transfer centers employing bilingual/bicultural student workers to provide encouragement and tutoring to Latino and other minority students.

- The Puente Project in California, a partnership between the UC system and a number of community colleges, attempts to incorporate Latino students’ cultural experiences into the English curriculum during their first year of college.

While these are interesting examples of what might be done, Wassmer, Moore, and Shulock (2004) note, unfortunately, that there is no currently available comprehensive review of community college programs targeted to minority students.

Deil-Amen and Rosenbaum (2003) take an alternative approach—one based on a study of private occupational colleges—to arrive at suggestions for how community colleges might enhance the chances of success of minority and other disadvantaged students. As we have noted, strengths of community colleges including broad program offerings, low cost, and convenient locations allow easy access and broad choice among fields of study. At the same time, it is easy for students, particularly first-generation college students who attended high schools offering little counseling, to run into difficulties. The result is
that these students often feel lost, fail to make reasonable progress in their programs, and ultimately drop out. In the words of Deil-Amen and Rosenbaum, nontraditional students’ attrition tends to be high because they lack the “social know-how” to succeed in large, impersonal educational institutions.

Private occupational colleges are much more expensive than public community colleges and offer limited choice among programs. Nevertheless, Deil-Amen and Rosenbaum argue that private occupational colleges are able to compete with community colleges by reducing the importance of social know-how. The authors outline four barriers posed by community colleges to students with limited social know-how that appear to be successfully addressed by private occupational colleges. These barriers and the responses of occupational colleges are worth describing in some detail.

1. Bureaucratic hurdles and confusing choices. Community colleges are often large and complex institutions. It is easy for students to be overwhelmed with the available choices, to make poor decisions on the basis of inadequate information, and to find that programs take longer to complete than anticipated. Occupational colleges provide easy access to information on how to enroll and on course requirements for particular majors. Information about financial aid, rather than being the student’s own responsibility, is viewed as an integral part of the registration process.

2. The burden of student-initiated assistance. Although community colleges make guidance available, students are typically expected to initiate the process. Nontraditional students often do not know that guidance is available, or, if they do, are reluctant to make an appointment with an advisor. Rather than expecting students to take the initiative to seek out assistance, occupational colleges automatically assign each student to a specific counselor who monitors the student’s academic progress.

3. Limited counselor availability, poor advice, and costly mistakes. In comparison to community colleges, occupational colleges invest heavily in counseling services and job placement staff. Easier access to counselors, when combined with fewer
program options to learn about, results in more accurate advice and quicker detection of potentially costly mistakes.

4. Conflicts with outside demands. Students and particularly nontraditional students face outside demands that divert their attention from coursework including financial need, work obligations, and child care crises. Deil-Amen and Rosenbaum suggest that community college faculty and administrators often give the impression that the traditional student model is the ideal, and that if working students struggle with their studies the solution is to reduce hours of work. In contrast, occupational colleges recognize that most students need to work and attempt to make work compatible with students’ career goals. This includes blocking courses to reduce commuting time, providing guidance on how to combine education with work, and helping students find career-relevant jobs.

Writing specifically about California community colleges, Shulock and Moore (2007) provide a similar analysis of policies, that while intended to increase access, have the unintended consequence of inhibiting the program completion of increasing under-prepared students. They suggest, in contrast to current CCCS policies, an institutional commitment to student success. Such a commitment would be implemented by proactive and continuous academic counseling, stricter assessment of entering students’ basic skills proficiency, requiring students to remedy basic skills deficiencies before enrolling in higher-level classes, a mandatory freshman orientation course, and assisting students to identify program goals and pathways for meeting these goals.

RESPONSIVENESS TO MEETING THE NEEDS OF LOCAL EMPLOYERS

The cross-college examination of the effects of clustering for Latinos and Asians sets the stage for our analysis in Chapter 7 of the quality of matches between the occupational distribution of credits completed supplied by community colleges and the occupational distribution of projected new jobs in counties in which colleges are located. As de-
scribed earlier in this chapter, we quantify match quality by means of a responsiveness variable (R). Since California community colleges are organized into districts, it is quite possible that labor market responsiveness occurs at the district level, rather than at the individual college level, for colleges in multicampus districts. Hence, we calculate R scores for community college (CC) districts as well as for individual colleges.

For the 106 CCCS colleges we analyze, R scores are found to vary substantially, with the least responsive college receiving a score of 32.4 percent and the most responsive college a score of 81.7 percent. (R scores can range between 1 and 100 percent.) Our analysis reveals that R scores are positively affected by several external constraint measures suggested by Jacobson et al. (2005, Appendix C). These variables include student enrollment, revenue per student, share of local revenue to total revenue, and suburban location. Found not to be important in determining labor market responsiveness is the emphasis a college puts on occupational skills training, which we measure by the share of vocational credits in all credits completed. We also find that it makes little difference whether or not a college is a member of a multicampus CC district.

Our district-level results are distinctly different from these college-level findings. For the 71 districts included in our data set, the R score distribution shifts up in comparison to that for colleges, primarily because of higher scores at the low end of the distribution. Among the external constraint variables, only our measure of local revenue share appears to impact district-level R scores. Holding constant the effects of these external constraints, our major new result is that while membership in a multicampus district had essentially no effect in our college-level relationship, it is strongly positive at the district level, with a coefficient of nearly 6 percentage points.

To draw out the implications of this finding, we argue in Chapter 7 that a simple property of an average would lead to a finding of no effect for the multicampus variable in our district-level relationship. The reasoning is that low-scoring colleges in a multicampus district are likely to have their scores pulled up by other colleges in their district in comparison to low-scoring colleges that comprise their own district. At the same time, R scores for districts that include high-scoring colleges will be drawn down in comparison to high-scoring colleges that are
their own district. We thus interpret the finding that multicampus CC districts are more labor market responsive than single-campus districts as suggesting that, at least within some multicampus districts, member colleges choose to specialize in their occupational education curriculums and, furthermore, that these specializations are complementary within districts.

An example provided in Chapter 7 illustrates this point. Serving Alameda County in Northern California, the Peralta CC district includes four colleges. Merritt College and Vista College are found to rank second and third from the bottom, respectively, in terms of their individual R scores (38.3 percent and 38.6 percent, respectively). Within the district, these two colleges are combined with higher-scoring Alameda College (R = 59.9 percent) and Laney College (R = 64.1 percent). But rather than its score lying between those for the low-scoring and higher-scoring member colleges, the Peralta CC district score is 70.5 percent. Not only is the district score considerably above the highest score of any member college, but we noted in Chapter 7 that it is close to the score that would put the Peralta CC district in the top-five districts measured in terms of labor market responsiveness.

Policy Implications

We draw three policy implications from these findings. The first is that a heavy emphasis on occupational skills training as measured by the share of total credits in vocational fields of study does not necessarily carry over to a high score on our measure of labor market responsiveness. Colleges with a low voc-ed credits ratio can be responsive in the occupational skills programs they do offer. A case in point is Santa Barbara City College, which is known within California as a transfer-oriented college and has a voc-ed credits ratio of only about 20 percent. Nevertheless, Santa Barbara City College ranks second among all 106 CCCS colleges in terms of its R score.

The second policy implication relates to our external constraint variables that measure enrollment and the level and source of funding. Not unexpectedly, we find that size and funding affect a college’s labor market responsiveness, and that share of local funding enhances responsiveness at the district level. Nevertheless, the fit of our estimated relationships is not such that we can provide accurate predictions
of a particular college’s or district’s responsiveness. We interpret these results as indicating that there is plenty of room for administrators interested in increasing the labor market responsiveness of their colleges to exercise initiative and leadership in seizing upon the opportunities offered in their communities.

A final policy implication involves performance evaluation. The issue is whether performance standards applied uniformly to community colleges, as directed by the federal Workforce Investment Act (WIA) and the Carl D. Perkins Vocational and Technical Education Act (VTEA), are appropriate if colleges differ in their academic missions. In Gill and Leigh (2004), we use college-level data to investigate the extent to which California community colleges differ in their missions. Colleges are found to differ in terms of the mix of their curriculums across transferable, nontransferable voc-ed, and adult basic skills credits, and in terms of the level at which voc-ed courses are taught. The main empirical distinction is between colleges that offer a transfer curriculum specialization and colleges that specialize in nontransferable voc-ed. We conclude that in view of important differences in curriculum offerings, a “one-size-fits-all” evaluation strategy may not be appropriate.

Continuing to focus on community colleges’ occupational skills offerings, our analysis in Chapter 7 examines the effectiveness of these offerings as measured by the quality of the matches between the supply of skills colleges provide and the demand for skills by local employers. As already summarized, we find that colleges differ substantially in our measure of match quality. Before labeling low-scoring colleges as non-market responsive, however, we also pointed out that it is important to take into account whether these colleges are members of a multicampus CC district. Based on our evidence, we argue that low-scoring colleges may have low scores because they specialize in the occupational skills training provided, and that when combined with other member colleges that offer complementary specializations, the district is labor market responsive.
QUALIFICATIONS AND OPPORTUNITIES FOR FURTHER RESEARCH

We conclude our discussion of the labor market responsiveness of community colleges with some final thoughts and a few suggestions for further research.

In terms of meeting the needs of immigrants, our first research question, results presented in Chapters 5 and 6 suggest general guidelines that may be helpful to community colleges for designing programs to increase retention of Latino students. Among Latinos, moreover, such targeted programs appear to be especially important for students of Mexican descent and for colleges with a heavy Mexican enrollment. Earlier in this chapter, we mentioned a few examples of community colleges, including those in California, that offer programs targeting assistance to Latino students. However, more research is urgently needed in the form of more comprehensive surveys of targeted programs. With this information in hand, the next step would be to proceed with a formal evaluation of the different types of programs. The barriers to a successful community college experience identified by Deil-Amen and Rosenbaum (2003) could serve as a useful standard against which to evaluate these programs.

To answer Research Question 2, we argue in Chapter 7 that matching a community college’s supply of skills to local employers’ demand for skilled workers represents a simple and intuitive method for assessing the effectiveness of a college’s occupational skills training programs. As emphasized, the labor demand measure we use is projected employment across major occupational categories measured at the county level. On the supply side, we measure a college’s distribution of vocational credits completed classified by the same occupational codes. We view our methodology as a reasonable first approach to providing a quantitative measure of labor market effectiveness that allows individual colleges, and districts, in a state community college system to be directly compared. Nevertheless, there is the possibility that a college that is actually responsive to local employers’ needs might receive a low R score.

An important issue is the use of counties to represent the geographical dimension of the local labor market. While we would argue that
counties represent a reasonable approximation of the labor market relevant to students enrolled in most California community colleges, there are some counties for which this is not likely to be the case. A leading example is Los Angeles County, which has a gross domestic product exceeding that of many small nations. The question is whether a county as large and complex as Los Angeles County really represents the relevant local labor market for a particular community college, or even a community college district, located in the county?

To push this issue one step further, consider the case of a community college that is filling a market “niche” by supplying trained workers to one or a handful of local employers who offer relatively few, but high-paying, jobs. At the level of aggregation we use, the few jobs described in this example are unlikely to be reflected in the occupational distribution of projected job opportunities measured at the county level. Yet, this college might reasonably be considered as labor market responsive.

With the Los Angeles County case and the example of a community college that supplies a particular market niche, we are suggesting that it is important to know how the college itself defines its market, which in turn is likely to depend on how it prioritizes its missions. This kind of information is likely to be accessed only through site visits, indicating the desirability of a case study approach to complement the empirically based approach we implement.

One final thought relates to the relationship between Research Questions 1 and 2. We indicate in Chapter 1 that the two questions are not independent. Yet our analysis in Chapters 5 and 6 does not directly address the question of whether community college students who are current or recent immigrants are obtaining the occupational skills they need to qualify for jobs in the local labor market. Instead, we examine the effect of attending a community college on a broader set of educational outcomes (student transfers, AA degree receipt, and total credits earned) that are known to have positive labor market payoffs. Our analysis in Chapter 7, similarly, does not examine whether the occupational training received by current or recent immigrants attending a community college is a good match for new jobs opening up in the local labor market. Rather, we calculate R scores for colleges using data for all their students.
A few of the results we report in Chapters 5, 6, and 7 give a hint of what one might expect to find for the overlap between our Research Questions 1 and 2. For example, we find in Chapter 7 that colleges that are the most market responsive are often located in suburban areas in Orange County and the San Francisco Bay Peninsula. In Chapters 5 and 6, in turn, we report that Asian and especially Vietnamese immigrants are concentrated in the same suburban areas. The suggestion is that community colleges disproportionately attended by Asian immigrants are responsive to changing local labor market conditions.

Nevertheless, we believe that a direct examination of the intersection between our two research questions would be fruitful. As one example, future research might narrow the scope of our second research question to focus on particular groups of students, say, first-generation Mexican and Asian immigrants, while widening the outcome variables considered in answering Question 1 to include training appropriate to job opportunities in the local labor market. Hence, an interesting research question emerges: Do community colleges provide occupational training to new Mexican and Asian immigrants that gives them the skills necessary to compete in the local economy? It is our hope that the empirical research presented in this monograph will stimulate more questions and additional research that will further illuminate the critical role of community colleges in helping nontraditional students, such as first-generation immigrants, adjust to the demands of the U.S. labor market.

Notes

1. The authors make it clear that their study is based on a restricted, nonrandom set of private occupational colleges. Two criteria were imposed in selecting these occupational colleges. First, selected institutions offer accredited two-year degrees in applied programs such as business, accounting, computer information systems, electronics, and medical technology. This characteristic makes them comparable to community colleges. Second, selected occupational colleges have low loan default rates and, according to the authors, are considered to offer some of the best applied programs available.

2. The five policy barriers identified by Shulock and Moore (2007) are 1) funding based on course enrollment reported early in the semester or quarter; 2) limits on expenditures on staff providing essential student services including advising; 3) restrictions on hiring that limit colleges’ flexibility in offering courses, especially occupational training and basic skills courses; 4) student fee policies that encour-
age students to enroll in classes without much forethought and deprive colleges of needed revenue; and 5) an institutional philosophy that “students have the right to fail.”