

California Counts

POPULATION TRENDS AND PROFILES

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California's Community College Students

By Ria Sengupta and Christopher Jepsen

Summary

The California community college system describes itself as the largest postsecondary education system in the world (CCCCO, 2006a), with more than 2.5 million mostly part-time students enrolled in more than 100 colleges around the state. These institutions offer a broad variety of courses for their students, including academic coursework for an associate's degree or transfer to four-year colleges and universities, vocational training, basic skills, English as a second language (ESL), and enrichment courses.

In this issue of *California Counts*, we examine the community college population in California. Why do students attend, and how do their goals differ in relation to their demographics? Which students achieve their objectives for attending community college? Who returns for a second year, who transfers to a four-year institution, and who obtains a degree or certificate? Answers to these questions provide a basic yet essential backdrop for understanding how community colleges serve California's diverse population.

Given such a large student body, it should be no surprise that community college students are an extremely diverse set of people. In 2003, half of all students were aged 17 to 20, but almost two out of five students were over age 25. The share of younger students has grown in recent years, while the share of older students has dropped. Females outnumbered males, and this difference increased with age. About 40 percent of entering community college students were white, about 30 percent were Latino, and almost 15 percent were Asian/Pacific Islander (API). Most had high school diplomas, but substantial numbers of students without diplomas or with postsecondary degrees also attended.

We identified students' reasons for attending community college according to the classes they took in their first year. Students took a majority of their classes in one of five areas:

... only about a quarter of students who were focused on transfer courses in their first year eventually transferred to a four-year institution.

classes that are transferable to a four-year institution, vocational education, basic skills or ESL courses, noncredit classes, and miscellaneous courses (which often include associate's degree courses). Nearly half of community college students took primarily transfer classes, about 15 percent took primarily vocational classes, and fewer than 10 percent took noncredit classes. Almost 15 percent of students took a majority of basic skills and/or ESL classes, and another 15 percent took miscellaneous classes or classes that are only associate's degree eligible.

However, there was much diversity in course-taking patterns across different categories of students. Younger students usually enrolled in transfer courses, while older students focused on vocational education and noncredit courses. As one might expect, students without a high school diploma and students with a foreign diploma were much more likely to take basic skills classes than were students with higher educational levels.

Students of every racial/ethnic group were more likely to take transfer-eligible courses than other types of courses. However, a greater percentage of Latinos took basic skills classes (which are often ESL classes) than did students of other racial/ethnic groups. A much greater percentage of the community college student population was Latino than in the University of California (UC) or California State University (CSU) systems. Yet, Latinos were still underrepresented in community college, compared with their share of the state population.

Community colleges have very high turnover. Half of the students did not attend after their first year. However, transfer-focused students were more likely to return for a second year than were vocational, basic skills, or noncredit students. Most of those who stayed for a second year maintained the academic focus they had begun in their first year. Aside from the large number who left in their first year, students showed no other clear patterns of attendance duration.

Most students did not earn a degree or transfer to a four-year institution. Providing associate's degrees is a major function of community colleges, yet less than one-tenth of students earned an associate's degree. In addition, only about a quarter of students who were focused on transfer courses in their first year eventually transferred to a four-year institution. Associate degree and transfer rates were highest for younger students and those with either a traditional U.S. or foreign high school diploma.

Transfer rates differed enormously by race/ethnicity, even when looking at the group most likely to transfer to a four-year institution—U.S. high school graduates between 17 and 20 years of age. The transfer rate for APIs

was double the rate for black, Latino, and American Indian students, even though they were all of comparable age and previous educational level.

State policymakers acknowledge the range of community college functions by requiring multiple measures of accountability. Our findings suggest that policymakers should continue to consider multiple outcomes. We also identify three ongoing challenges in the California community college system. The first is the declining age of students, which raises the question of whether older students are losing access to community college. The second challenge is the pervasive attrition of the student population, which results in students leaving the system without a degree or transfer completion. Lastly, older students, Latinos and blacks, and students without a high school diploma have substantially lower transfer rates and degree completion than other students. If community college continues to be the dominant form of higher education for these students, achievement rates for these students must improve.

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Introduction

Community college is the most common form of postsecondary education in California, comprising over 70 percent of all public higher education enrollment in the state.¹ California's 110 community colleges serve 2.5 million students a year (California Community College Chancellor's Office [CCCCO], 2006a). Although most students attend community college part time, this number still translates to more than a million full-time-equivalent students. In contrast, the California State University (CSU) system enrolls about 400,000 students, and the University of California (UC) system enrolls about 200,000 students (California Postsecondary Education Commission [CPEC], 2006).²

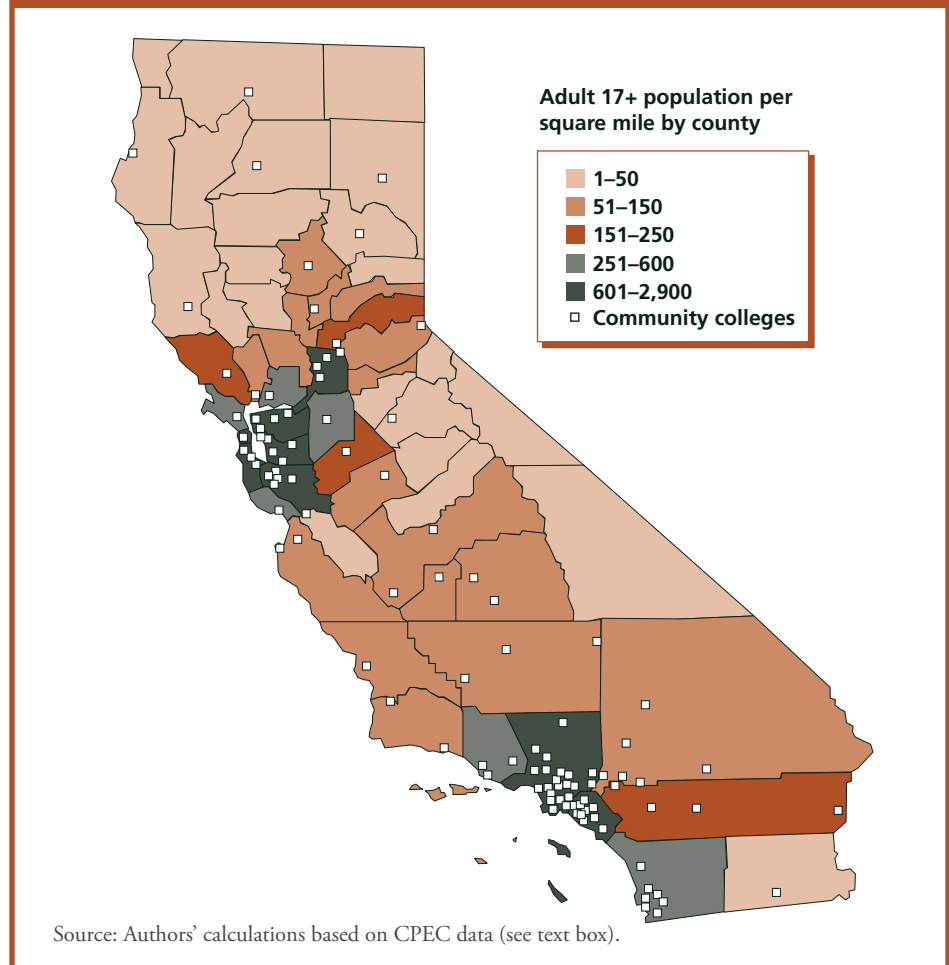
The California community college (CCC) system differs from other higher education systems because of its numerous educational functions. California's Master Plan for Higher Education, adopted in 1960, designates several community college missions. The primary one is to provide "academic and vocational instruction at the lower division level to both younger and older students, including those persons returning to school" (California Education Code, 2005). Other missions include workforce training, remedial education, English as a second language (ESL) instruction, adult noncredit instruction, and

Anyone who is a high school graduate, is over the age of 18, or can benefit from instruction is eligible to attend community college.

community service courses and programs (University of California Office of the President, 2006). In contrast, the CSU and UC systems have fewer and more focused missions. CSU's mission is to provide undergraduate, graduate, and professional education, while the UC system provides undergraduate, graduate, and professional education and conducts academic research.

Community colleges are located throughout California and range from large urban institutions to small rural ones. Figure 1 maps California's 110 community colleges, along with the adult (17 years and older) population density in each county. Anyone who is a high school graduate, is over the age of 18, or can benefit from instruction is eligible to attend community college (CCCCO,

Figure 1. Distribution of California's Community Colleges



2006c). Providing both precollegiate and transfer-level courses, the system offers affordable options for students preparing to transfer to a four-year institution. About one-third of UC and two-thirds of CSU graduates began their higher education at a community college (EdSource, 2005a). The CCC system also offers two-year associate's degrees in a variety of subjects

such as liberal arts and accounting, as well as certificates and licensing courses in professions such as nursing and real estate.

An increasingly common goal of community college students is to improve basic skills, including command of English. Many students also enroll to finish coursework for a General Educational Development (GED) test or to

prepare for a citizenship exam. Others enroll in nonacademic enrichment courses in topics such as gardening, knitting, and self-defense. In addition, the system's flexibility often allows students to remain in the workforce while taking classes. In fact, almost 80 percent of community college students also work (CCCCO, 2006c).

Although some colleges focus on a particular mission, such as Santa Barbara City College's transfer focus and Los Angeles Trade-Tech College's vocational focus, the majority of community colleges have no such well-defined or articulated objective. Instead, they try to serve many types of students—focusing on breadth rather than depth. The missions emphasized at each college vary according to their physical proximity to UC and CSU campuses and the needs of the surrounding community (Gill and Leigh, 2004).

The multiple missions of community colleges provide several avenues for them to improve labor-market outcomes. Kane and Rouse (1995) show that many forms of postsecondary education lead to higher earnings. The highest increases are for four-year degrees, but substantial returns also exist for two-year degrees. In fact, the authors find an 8- to 10-percent increase in annual earnings for students who attend a community college but do not complete a degree. Jacobson, LaLonde, and Sullivan (2005)

also find substantial returns for community college credits in their study of displaced workers in the state of Washington. Thus, simply attending community college is associated with higher earnings.

The CCC system's wide-ranging functions also make it difficult to establish optimal per-pupil funding levels. California's community college student fees and state funding have changed considerably in recent years. From the spring of 1993 to the spring of 2003, student fees ranged from \$10 to \$13 per unit (Perry, 2005a). California's recent budget crisis resulted in a fee increase to \$18 per unit for the 2003–04 school year, and another increase to \$26 per unit for the following year. However, California lawmakers recently approved a state budget that reduces student fees to \$20 per unit starting in the spring of 2007 (\$600 a year for a full-time student). Although the fee hike from \$11 in the 2002–03 school year to \$20 in 2007 translates into an 82 percent increase, California's community college tuition is still significantly lower than the national community college average of \$2,155 for the 2003–04 school year (EdSource, 2005b).

The CCC system's state funding has also recently changed. Student enrollment fees make up a small share of community college funding, typically less than 5 percent. Most of the system's revenue comes from the state general fund

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and from local property taxes (Murphy, 2004). For the first time in nearly a decade, funding per full-time-equivalent student (FTE) fell from \$4,634 in 2001–02 to \$4,443 in 2002–03.³ Course availability and student services dropped as well (Perry, 2005a). State funding and course offerings have fluctuated in the years since. The estimated FTE funding level for the recently approved 2006–07 state budget is \$5,346, although the exact amount varies by college. Still, community colleges receive much lower funding per FTE than do the UC, CSU, or K–12 education systems.

Opinions differ about whether current funding for California's community colleges is sufficient. The California Legislative Analyst's Office (LAO) asserts that because actual enrollment has

declined since 2002, current funding outpaces enrollment growth (LAO, 2005). Furthermore, because CCC student fees are the lowest in the country and financially needy students qualify for fee waivers, LAO has questioned the idea that fee hikes negatively influence enrollment (LAO, 2006). However, the CCCCCO and many individual colleges consider enrollment decline as a reflection of increased student fees, the 2002 budget crunch, and subsequent decreased course availability. While the system's missions and student composition have expanded and diversified considerably, college officials contend that funding has not correspondingly increased.

All community colleges must comply with a variety of federal and state accountability regulations. For instance, the federal Student Right-to-Know (SRTK) policy requires colleges to collect and report annual transfer, associate's degree, and certificate completion rates for full-time, degree-seeking freshmen (CCCCO, 2006d). These SRTK rates are intended to give students a measure by which to compare prospective colleges. In addition, the Workforce Investment Act requires community colleges to meet performance levels for labor market indicators such as employment placement and retention rates and wages (Gill and Leigh, 2004). The Perkins Vocational

and Technical Education Act mandates colleges to report vocational education students' completion, transfer, and employment rates (Gill and Leigh, 2004).

As a product of California State Assembly Bill 1417 (Pacheco, R-Walnut), in 2005 the state established its own set of community college accountability standards. Specifically, these standards require the CCCCCO to compile and submit college- or district-level performance indicators such as degrees and certificates earned, credits earned, transfer rates, retention rates, vocational and workforce development course completion, and basic skills and ESL course completion and improvements (CCCCO, 2006e). The report must also include annual improvements and comparisons to similar colleges and districts. The first annual report is due to the legislature and the governor in March 2007. Because colleges can face delayed or reduced state funding for missing deadlines for data submission, this mandate significantly affects the entire CCC system. The legislature has not determined how the accountability reports will be used at the state level to improve the system. Nevertheless, the report will give communities and college boards detailed information about the effectiveness of individual colleges.

Given the arrival of the first state accountability report in 2007, now is a crucial time to

understand who attends community college in California and why. How do these goals change according to student demographics? Which students achieve their objectives for attending community college and which do not? Answers to these questions provide a basic yet essential backdrop for understanding how community colleges serve California's diverse population.

Why Do Students Enroll in Community College?

Upon entering the California community college system, many students identify their principal educational reasons for attending (see Table 1). Of the students who began college in 2003–04 and answered administrative questions regarding their education goals, one in five indicated indecision on a goal when entering the system.⁴ One-third of students identified transferring to a four-year institution (with or without an associate's degree) as their educational goal. One-fifth of students indicated their goals were discovering or formulating career interests, preparing for a new career, or engaging in educational development. For these students, community college is an avenue to explore new career options. Almost one in ten students

Description of California Community College Data

In this issue of *California Counts*, we analyze the course-taking characteristics, transfer rates, and degree outcomes of students who entered the California community college system for the first time during the 2003–04 school year. We use administrative data from the California Community College Chancellor's Office, which contain students' demographic, course-taking, and academic-standing records for each term. To identify student demographic changes over time, we compare the 2003–04 students to those who entered the system during the 1997–98 school year.⁵ The 1997–98 cohort is also used to analyze long-term outcomes such as transfer rates and degree completion.

We omit several schools and student groups from our analysis. First, we exclude seven institutions that are part of a community college district, but are actually adult schools that focus only on adult education. Adult school is offered in some areas through the community college district and in others through the K–12 school district, so we exclude all adult schools to be consistent across regions. Second, we omit Copper Mountain College, Folsom Lake College, and West Hills College–Lemoore because they did not exist during the two years of our analysis (1997–98 and 2003–04).⁶ Finally, we exclude students who are currently enrolled in high school because they are primarily served through the K–12 system. Providing high school students with classes that are unavailable in the K–12 system is an important function of community colleges, but our report focuses on the educational objectives and outcomes of postsecondary students. For the same reason, we also omit students under the age of 17. Our final sample includes 107 community colleges, resulting in 539,241 students from the 1997–98 cohort, and 561,078 from the 2003–04 cohort.

The records for each student and term are linked by a student identifier. For more than 90 percent of students, the identifier is the student's Social Security number. However, the Social Security number is self-reported. Identifiers that are not Social Security numbers are college specific and cannot be matched to transfer data.

We use data from several other sources to compare community college students to other populations. We use CPEC college address information to map community colleges, and we use CPEC enrollment data to contrast community college student enrollment figures with UC and CSU enrollment. To compare the community college age distribution to that of California's adult population, we employ California Department of Finance demographic data. Lastly, to analyze racial/ethnic composition, we use both CPEC data (to assess representation in each higher education system) and American Community Survey data (to assess representation in the state population).

wanted to update job skills or maintain a certificate or license (such as in nursing or real estate) as a primary goal. These students view community college education as a way to maintain or advance an existing career. Few students chose the sole goal of obtaining an associate's degree; earning a vocational education degree or certificate; improving English, reading, and other basic skills; or completing credits for a high school diploma or GED. This does not necessarily mean that few students attend community college for these discrete goals. Rather, these results show that not many students acknowledge these goals as their sole purpose for enrolling.

Students' initial stated goals are closely related to future course-taking patterns and outcomes (Bers and Smith, 1991; Driscoll, 2006). However, more than one

in ten students did not state an initial goal; many more are undecided about their goal, and others change their goal during their first year after discovering course requirements. A more reliable measure of students' intentions is the pattern of courses they take in their first year. For example, if a student took a majority of transfer-eligible classes in her first year, it is likely that her objective is to transfer to a four-year institution, even if she does not designate a transfer goal upon entering the system.

To identify students' objectives in community college, we grouped students into one of five course-taking categories: transfer, vocational education, basic skills or ESL (BS-ESL), noncredit, or miscellaneous (see Table 2). These categories all encompass specific missions of the CCC system. Transfer and vocational education

both have long traditions in California's community colleges. Basic skills classes, ESL, and noncredit instruction are also common CCC focuses. The fifth and final category is a combination of classes, often encompassing classes that are associate's degree eligible but are not transfer eligible. Each of these categories is mutually exclusive, meaning students fell into only one of these five course-taking groups.

Students who took a majority of UC- and/or CSU-transferable classes during their first year at community college were placed in the transfer category. These transferable courses, such as introductory psychology or political science, are nonvocational and are taken for credit. The second category includes students who took a majority of nonbasic vocational or occupational classes, such as classes to train as an administrative assistant or to learn electrical technology. Some vocational education classes are also transfer eligible, and we categorized these as vocational, rather than transfer. Students in the BS-ESL course-taking category enrolled primarily in classes such as GED preparation, literacy, basic math, remedial coursework, or ESL during their first year. The noncredit category includes students who took classes such as cooking or time management for enrichment, rather than for academic or occupational purposes. Lastly, the miscellaneous category consists of students who

Table 1. Percentage Distribution of Community College Students by Educational Goal, 2003 Cohort

Stated Educational Goal	% with Goal
Transfer to a four-year institution	33
Associate's degree only	4
Vocational education degree or certificate	4
Career interests and preparation, educational development	21
Career advancement, certificate, or license maintenance	9
Basic skills	4
Complete credits for high school diploma or GED	3
Undecided	21

Source: Authors' calculations based on CCCCCO data (see text box).
Note: Column does not sum to 100 because of rounding.

Table 2. Percentage Distribution of First-Year Course-Taking Categories, 2003 Cohort

Course-Taking Category	%	Category Description	Example Courses
Transfer	48	Students who took a majority of UC/CSU transferable courses (nonvocational)	Introduction to psychology, calculus
Vocational	16	Students who took a majority of vocational/occupational courses	Dental assisting, electrical technology
BS-ESL	14	Students who took a majority of precollegiate BS-ESL courses	ESL, basic math, tutoring
Noncredit	7	Students who took a majority of enrichment or community-oriented courses not for credit	Cooking, self-defense, traffic school
Miscellaneous	15	Students who took a majority of nontransferable associate's degree-eligible courses or did not take a majority of courses in any other group	Geometry, introduction to sports medicine

Sources: Authors' calculations based on CCCCCO data and authors' interpretations of individual CCC catalogues.

did not take a majority of courses in any one of the other categories. This included students who took associate's degree-level classes not transferable to a four-year institution, or some combination of classes from the other categories. There is some overlap between students in the transfer category and those in the miscellaneous category because all transfer-eligible courses are also associate's degree eligible. Table 2 shows that almost half of all community college students in the 2003 cohort took a majority of UC/CSU transferable courses in their first

year. Sixteen percent took primarily vocational classes, and another 15 percent were categorized as miscellaneous. BS-ESL (14%) and noncredit (7%) students represented smaller, but still substantial shares.

Students' objectives differed by age, race/ethnicity, and other student characteristics. The next subsections discuss these patterns.

How Do the Reasons for Attending Community College Vary with Age?

Students of all ages attend community college (see Table 3). While

While half of students were of traditional college age (between 17 and 20 years old) in 2003, substantial numbers of students were 21 years or older.

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Overall, the 2003 entering class was younger than in 1997 (as shown in Table 3). The share of community college students between the ages of 17 and 20 grew from 39 percent in 1997 to 49 percent in 2003, while the three oldest age groups shrank during the same time period. This decline in older students is likely due to the reduction in course offerings. Budget cuts in 2002 resulted in decreased evening and weekend vocational and nontransfer classes throughout the state (Perry, 2003; Perry, 2005b). Older students are more likely than younger students to take these types of courses because their daytime hours are more constrained by work and family obligations. Thus, they are more likely to be affected by a drop in course offerings.

Table 3. Percentage Distribution of Community College Students by Age and Year

Age Group	Community College Population		State Population (17 and older)	
	1997	2003	1997	2003
17-20	39	49	8	8
21-25	12	13	10	9
26-34	16	12	20	18
35-54	24	18	38	39
55 and older	9	7	24	26

Source: Authors' calculations based on CCCCO and California Department of Finance data (see text box).
 Note: Columns may not sum to 100 because of rounding.

The changing age composition of community colleges is not a reflection of a demographic shift throughout the state. During the years of our analysis, 17- to 20-year-olds have consistently constituted 8 percent of California's total adult (17 and older) population, and the 26-and-older group about 80 percent (see Table 3).

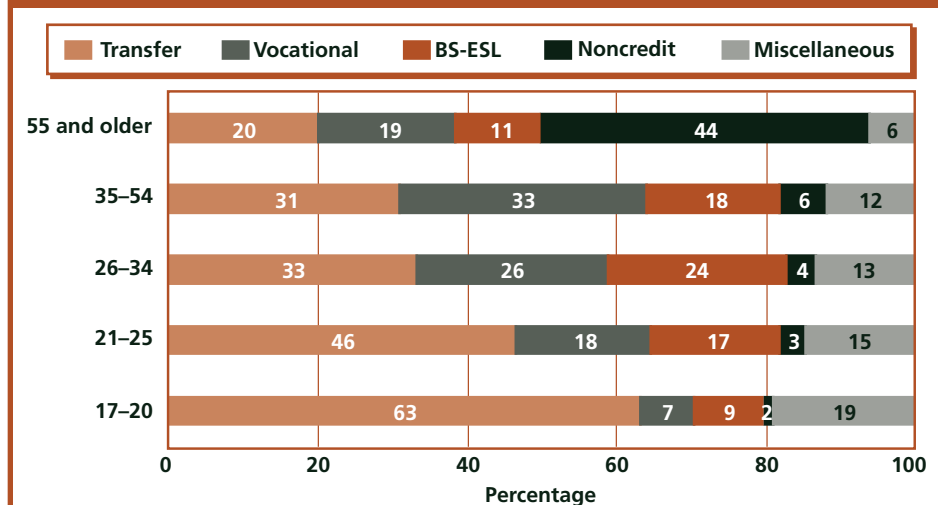
Students' motivations for attending community college also varied considerably by age (see Figure 2). The youngest students were most likely to attend community college with the intention of transferring or of obtaining an associate's degree. Eighty-two percent of 17- to 20-year-olds took a majority of transfer-eligible or miscellaneous courses during their first year. The proportion of older students in the same category, however, was considerably lower. The older the student was during her first year of community college, the less likely she was to

display the objective of transferring or receiving an associate's degree. It is important to note that although older students were less likely than younger ones to take a majority of transfer-eligible or miscellaneous courses in their first year, many still did.

Older students were most likely to attend community college for noncredit enrichment courses. Indeed, many community colleges offer a number of non-credit courses exclusively for senior citizens. Forty-four percent of students 55 years and older took a majority of noncredit classes in their first year, while less than 10 percent of each of the other age groups did.

The middle age groups were most likely to enroll in community college for vocational education. One-third of 35- to 54-year-olds took a majority of vocational courses in their first year. Lower but still substantial shares of 21-to-25, 26-to-34, and 55-and-older age groups concentrated on vocational education. Only 7 percent of the youngest

Figure 2. Percentage Distribution of First-Year Course Taking by Age, 2003 Cohort



Source: Authors' calculations based on CCCCO data (see text box).

age group took a majority of vocational courses in their first year. However, because the number of students in this age group was so large (half of all students in our sample), the actual number of 17- to 20-year-old vocational students was still substantial.

Basic skills and ESL instruction are key to the mission of community colleges. The three middle age groups had the greatest shares of students attending community college for this purpose. Only about one in ten students in the oldest and youngest age groups concentrated on BS-ESL courses in their first year.

More women than men attend California's community colleges, as is the case in the UC and CSU systems.⁷ Approximately 54 percent of all community college students in our dataset were women, and 46 percent men. However, shares of men and women in the 17-to-20 and 21-to-25 age groups were almost equal. Women represented a much larger share of the student population in the older age groups, creating the overall difference in gender representation. In fact, more than 60 percent of students aged 55 and older were women. Perhaps the longer life expectancy of women or greater interest in noncredit courses explains this result. A possible explanation for the gender gap at the middle age ranges is that women are more likely than men to interrupt their own schooling

to take care of young children and may reenter the education system at a later age (Gronau, 1988; Sandell and Shapiro, 1980). In general, older women were more likely to take noncredit classes and less likely to take vocational or transfer classes in their first year, compared with men in their age group.

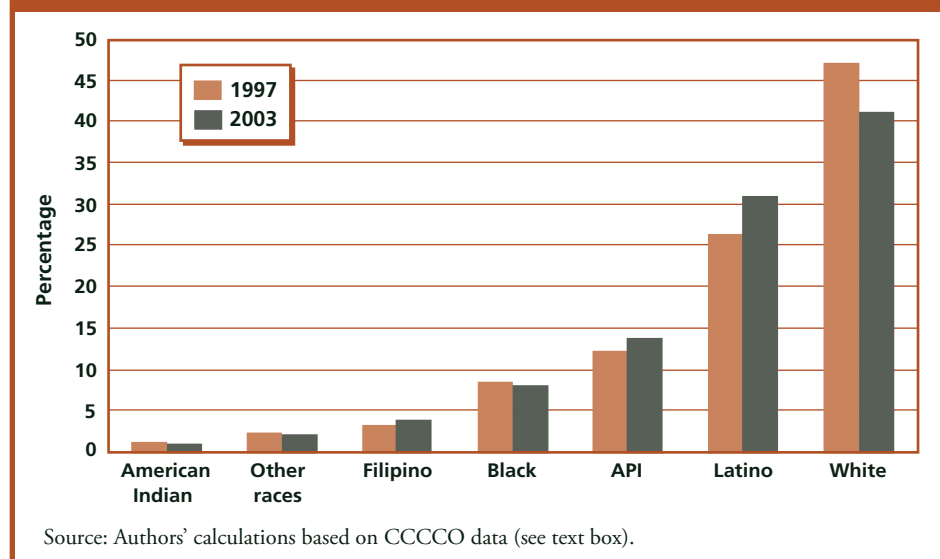
How Do the Reasons for Attending Community College Vary with Race/Ethnicity?

Community college students have a variety of racial and ethnic backgrounds (see Figure 3), with white and Latino students representing the largest shares of the student population. In 2003, four out of ten students were white, and three out of ten were Latino. The third

largest group was API students (15%), followed by black students (8%).⁸ Filipinos, American Indians, and students of other races each made up less than 5 percent of the total community college student population.⁹

The racial and ethnic compositions of California's community college population shifted from 1997 to 2003. The percentage of new Latino community college students grew by five percentage points while the share of white students dropped by six percentage points during the same time period. The share of API students grew very slightly from 12 to 14 percent, and black, American Indian, Filipino, and students of all other races remained stable. These changes coincide with a

Figure 3. Percentage Distribution of New Students by Race/Ethnicity and Year



Because community colleges serve groups that are underrepresented in other higher education systems, they are essential for reducing racial/ethnic disparities in educational attainment.

similar change in demography throughout the state. According to Department of Finance data, the share of Latinos in the state's 17-and-older population grew by 15 percent from 1997 to 2003, whereas the share of whites dropped by 10 percent.

There are notable racial/ethnic differences between the youngest and oldest students. Thirty-eight percent of all 17- to 20-year-olds were white, and only a slightly lower share, 34 percent, were Latino. By contrast, 70 percent of students 55 years and older were white, and only 12 percent were Latino. Because students in the oldest age group were most likely to enroll in noncredit courses, this imbalance could indicate that many more white students attend community college for noncredit purposes than do Latino students.

Because community colleges serve groups that are underrepre-

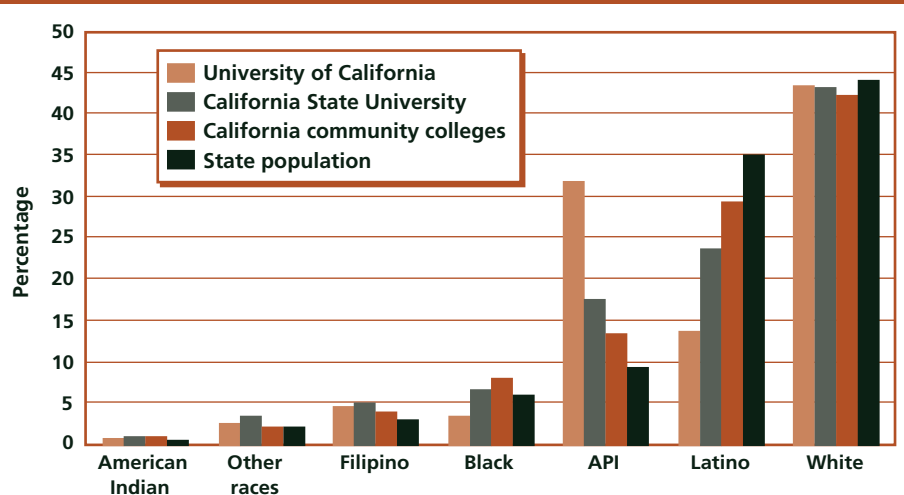
sented in other higher education systems, they are essential for reducing racial/ethnic disparities in educational attainment. The differences in racial/ethnic enrollment in higher education were most apparent for Latino, black, and API students (see Figure 4).¹⁰ Although in 2003 Latinos represented 29 percent of all students enrolled in community colleges (and 31 percent of new incoming community college students), they represented 24 percent of all CSU students and only 14 percent of UC students. These shares were all less than the Latino share of the overall state population, 35 percent. Similarly, black students represented 8 percent of enrolled students in community colleges in

2003, but 6 percent of CSU and only 3 percent of UC students. Compared with their share of the total state population (6%), blacks were slightly overrepresented in the CCC system and underrepresented in the UC system.

Conversely, API students were overrepresented in all three higher education systems, compared with their share of the state population (9%). Much greater proportions of enrollees were API students in the UC system (32%), in the CSU system (17%), and the community college system (13%), compared with their state population.

American Indians, Filipinos, and students of other races were consistently represented in each higher education system. These

Figure 4. Percentage Distribution of Higher Education Enrollment and State Population by Race/Ethnicity



Source: Authors' calculations based on CCCCCO, CPEC, and American Community Survey data (see text box).

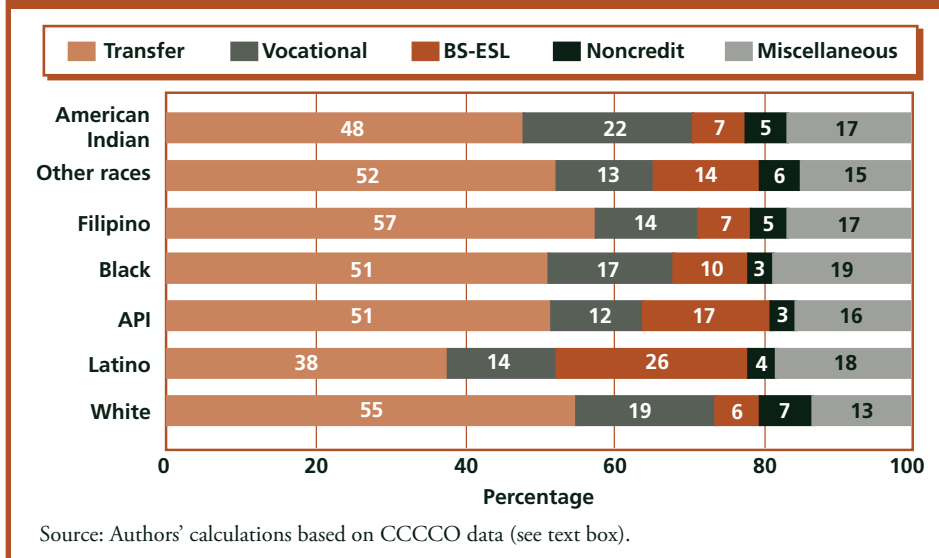
three student groups represented five percent or less of students in each higher education system and in the state. The percentage of white students in each higher education system and the state was also stable.

Latino underrepresentation extended to patterns in first-year courses taken (see Figure 5).¹¹ About half or more of Filipino, white, API, black, American Indian, and other race students took a majority of transfer classes in their first year. A much smaller share of Latino students attended community college for transfer purposes, with only 38 percent taking a majority of transfer courses in their first year.

These differences persisted even when age is accounted for. Seventeen- to 20-year-olds were most likely to attend community college in their first year for transfer purposes, but while 71 percent of white students in this age group focused on transfer courses, 51 percent of Latino students of the same age did so.

In contrast, Latinos were overrepresented in the BS-ESL category. Twenty-six percent of Latinos focused on BS-ESL courses in their first year, more than any other group, followed by API students with 17 percent. Differences in citizenship status could explain this overrepresentation. Greater shares of students in the Latino and API racial/ethnic groups were non-U.S. citizens

Figure 5. Percentage Distribution of First-Year Course Taking by Race/Ethnicity, 2003 Cohort



than were those in other groups, and non-U.S. citizens were overrepresented in the BS-ESL category compared with their share in the state population.¹² While only 18 percent of total students in our 2003 cohort were noncitizens, they made up more than half of BS-ESL students.

American Indians and whites had the highest shares of students who attended community college for vocational education. Approximately one-fifth of each group took a majority of vocational education classes in their first year. White students were also most likely to take a majority of noncredit courses (7%), and black and API students were least likely (3%). The shares of miscellaneous

students did not differ substantially by race or ethnicity.

How Do the Reasons for Attending Community College Vary with Previous Educational Background?

Community college students enter the system with a range of educational backgrounds (see Table 4).¹³ In 2003, a traditional U.S. high school diploma was the highest educational level of the majority (63%) of students entering the community college system. These results are fairly consistent across racial/ethnic groups, except for APIs. Only 51 percent of APIs had at most a traditional U.S. high school diploma because many API students had foreign

high school diplomas or postsecondary degrees (associate's degrees, bachelor's degrees, or higher).

API and white students were more likely than other racial/ethnic groups to have a postsecondary degree (associate's degree, bachelor's degree, or higher) before entering the system. Black, American Indian, and Latino students were more likely than others to have less than a high school diploma or to be concurrently enrolled in adult school and community college (presumably without a high school diploma).

Five percent of all students had not received a traditional high school diploma but had passed the GED high school equivalency exam. This was most common for American Indian students (10%) and least common for API students (3%).

Age plays a large role in the highest previous educational level of community college students as well. More than eight out of ten students between the ages of 17 and 20 had as their highest educational attainment a high school diploma, while half of 21- to 25-year-olds, and fewer than two-fifths of the three oldest age groups had the same. Similarly, students aged 55 and older had the highest share of postsecondary degree holders, 33 percent. Almost 30 percent of 26- to 54-year-olds, and 16 percent of 21- to 25-year-olds had this educational background.

Students' previous educational levels varied greatly in terms of

their first-year choice of courses (see Table 5). Students who graduated from a U.S. high school, passed the GED exam, or had a postsecondary degree were much more likely to take transfer-eligible courses than students who graduated from a foreign high school or had not graduated from high school. Non-high school graduates were more likely than most other students to take BS-ESL or noncredit courses. These students likely attend community college to finish a high school equivalency program or to complete remedial coursework before working toward a higher education degree. Similarly, students with a foreign high school diploma were also more likely than others to take BS-ESL courses. These students might have aspirations of transferring to a four-year university or obtaining a vocational degree, but they must first learn basic skills or improve their English.

Students with a postsecondary degree and students with a GED were more likely than all other students to attend community college for vocational education purposes. In addition, almost half of community college students who already had a postsecondary degree took a majority of transfer-eligible courses. Perhaps this means that many students who already had an associate's degree reentered community college to transfer to a four-year institution. Alternatively, many working professionals with

a postsecondary degree enroll in community college transfer-eligible classes to maintain licenses or build new job skills.

Outcomes After the First Year in Community College

This section looks at variation in students' outcomes after their first year in community college. Specifically, we examine how length of community college attendance, second-year course taking, transfer rates, and degree or certificates earned changed according to students' first-year course taking. In this section, we report results only for the 1997 cohort because the 2003 cohort data are too recent for long-term analysis. We find that large shares of students leave after their first year in community college, but for those who stay for a second year, most remain in the same course-taking category. In addition, very small shares of students earn degrees or certificates, or transfer, but rates vary considerably by age, previous educational level, and race/ethnicity.

How Long Do Students Attend Community College?

California's community colleges have high turnover (see Figure 6).¹⁴ Four out of ten community college students stayed in the sys-

Table 4. Percentage Distribution of Community College Students by Previous Educational Level and Race/Ethnicity, 2003 Cohort

Previous Educational Level	Racial/Ethnic Category							All Students
	American Indian	Other Races	Filipino	Black	API	Latino	White	
No high school diploma/concurrent adult school and community college enrollment	17	10	8	16	10	22	10	14
GED high school equivalency	10	5	4	7	3	5	5	5
Foreign high school diploma	1	8	10	2	17	6	3	6
U.S. high school diploma	66	66	63	67	51	63	66	63
Postsecondary degree	7	12	15	7	20	4	17	13

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Table 5. Percentage Distribution of First-Year Course-Taking Categories by Previous Educational Level, 2003 Cohort

First-Year Course-Taking Category	Previous Educational Level					All Students
	No High School Diploma/Concurrent Adult School and Community College Enrollment	GED High School Equivalency	Foreign High School Diploma	U.S. High School Diploma	Postsecondary Degree	
Transfer	30	46	33	59	48	48
Vocational	17	24	13	14	31	16
BS-ESL	30	9	36	7	6	14
Noncredit	11	2	3	2	4	7
Miscellaneous	12	19	15	18	11	15

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

tem for a year or less and did not return for at least seven years. The majority of first-year noncredit (63%), vocational (53%), and BS-ESL (52%) students left community college after their first year. Transfer and miscellaneous students were more likely to attend for more than a year. Sixty-five percent of miscellaneous students and 68 percent of transfer students stayed in the CCC system

for longer than a year. After completing their first year, however, relatively equal percentages of students left after each year.

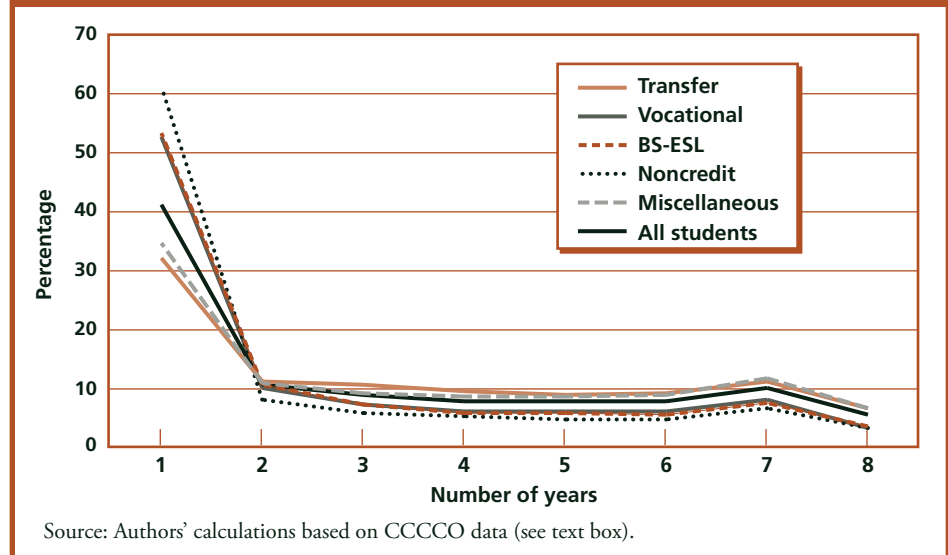
How Does First-Year Course Taking Influence Second-Year Course Taking?

We grouped students into the five original course-taking categories, based on their second-year characteristics, adding two alternative

categories if they were not in the system in the next year (see Table 6). Among those who did not attend the following year, we separated those who had transferred or earned an associate's degree or other degree or certificate from those who did not. It is likely that the former group stopped attending community college because they achieved their goal, while the latter may have left for other reasons.

Transfer-oriented students who either did not finish high school or had a GED were less likely to stay in the system in their second year than those with a foreign or traditional U.S. high school diploma.

Figure 6. Percentage Distribution of the Number of Years Between First and Last Terms in Community College, 1997 Cohort



Half of all students were not in community college during the following year even though they had not transferred or earned a degree or certificate. These students either left the system permanently after their first year or left and returned after at least a one-year hiatus. However, this does not necessarily mean that half of students did not achieve their goals for attending community college. Many students enroll with the intent of attending for only one year, taking, for example, an enrichment course or citizenship exam preparation class. Consequently, it is more informative to look at second-year course taking according to the reasons students first attended (which is measured by first-year course taking).

About four of ten students who focused on transfer courses in their first year stayed on track and also took a majority of transfer courses in their second year. Another four of ten transfer-focused students did not attend community college in the following year, even though they had not transferred or earned a degree.

The share of these transfer students who left without actually transferring or earning a credential differed according to their previous educational levels. Transfer-oriented students who either did not finish high school or had a GED were less likely to stay in the system in their second year than those with a foreign or traditional U.S. high school diploma. While 55 percent of students without

a high school diploma and 51 percent of students with a GED left the system by their second year without earning an award or transferring, only 40 percent of students with a foreign high school diploma and 34 percent of students with a U.S. high school diploma left.

Twelve percent of first-year transfer-oriented students who already had a postsecondary degree before entering the system were able to transfer or earn another credential by their second year, and therefore left community college. These students likely came into the system with most of the qualifications for fulfilling their goals and were able to complete them more quickly than students with less previous education.

Table 6. Percentage Distribution of Second-Year Course-Taking Categories by First-Year Course-Taking Category, 1997 Cohort

Second-Year Course-Taking Category	First-Year Course-Taking Category					All Students
	Transfer	Vocational	BS-ESL	Noncredit	Miscellaneous	
Not in community college (without transfer, degree, or certificate)	39	65	65	68	45	50
Not in community college (with transfer, degree, or certificate)	9	5	2	4	6	6
Transfer	42	6	7	3	26	25
Vocational	4	20	2	1	7	7
BS-ESL	1	1	18	2	2	3
Noncredit	0	0	1	20	1	2
Miscellaneous	5	4	6	2	13	6

Source: Authors' calculations based on CCCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Almost half of students who were categorized as miscellaneous in their first year were not in the system in the next year. However, 26 percent took a majority of transfer courses in their second year. Thus, many students whose courses were not concentrated in transfer, vocational, BS-ESL, or noncredit categories in their first year ended up focusing on transfer courses in their second year. For these students, one year of community college appeared to help them to focus on one educational goal.

The large majority of students who took mostly vocational, BS-ESL, or noncredit courses in their first year were not in the system in the next year and did not transfer or earn a credential or certificate. Presumably, many of these students had the intention of staying for a year or less. This is especially

so for noncredit students who often enroll in community college for enrichment purposes. It is also possible, however, that many vocational and BS-ESL students intended on staying in the system but did not do so. Only about one in five vocational, BS-ESL, and noncredit students took a majority of courses in the same category for a second year. Seven percent of students who focused on BS-ESL courses in their first year took a majority of transfer-level courses in their second year, and nearly the same percentage moved into the miscellaneous category in their second year. These shares might represent the students who finished their remedial, basic education, or ESL coursework in one year and were able to move on to transfer-eligible or degree-eligible courses in their second year.

How Do Transfer Rates and Degrees Earned Vary?

Because community college students differ in so many dimensions, success in the system is difficult to define. For some students, success is transferring to a four-year institution or earning an associate's degree. For others, it is receiving a GED or passing the citizenship test. Some are satisfied with simply completing a noncredit course. Thus, we look at a variety of student outcomes to identify differences in goal attainment. Specifically, we identified the highest outcome achieved by each student in the 1997 cohort by the end of the student's seventh year in the system. The five outcome categories are (1) transfer to a four-year institution with an associate's degree, (2) transfer to a four-year institution without

an associate's degree, (3) earn an associate's degree without transfer, (4) earn another type of certificate or award (credit or noncredit), or (5) receive no award.

Fifteen percent of students transferred to a four-year institution (with or without an associate's degree) within seven years (see Table 7). On average, students who transferred were in the community college system for four years but did not necessarily take classes during each term. Only 6 percent of the 1997 cohort earned an associate of arts or associate of science degree, and half of these students also transferred to a four-year institution. Lastly, 2 percent of the entire 1997 cohort earned another type of certificate or award given for a specific number of credits, such as a real estate license or clerical assistant certification. Close to 80 percent of students did not transfer or receive any award within seven years of first enrolling in the system. However, it must be emphasized that many of these students did not enroll in community college with the intent of transferring or earning an award.

Transfer rates are most relevant to students who did not already have a postsecondary degree before enrolling. These students constituted 84 percent of the 1997 cohort, and of these, transfer rates were highest for those who focused on transfer-eligible courses in their first year: 26 percent of students actually transferred to a four-year

institution,¹⁵ and this percentage increased to 38 percent for students who took a majority of transfer classes in both their first and second years.

Transfer rates differed by age and previous education (although not by gender), even when first-year course selection was taken into account. For students who took a majority of transfer courses in their first year and did not have a prior postsecondary degree, younger students had higher transfer rates than older students: 32 percent of students between the ages of 17 and 20 transferred, compared with 22 percent of 21- to 25-year-olds, 13 percent of 26- to 34-year-olds, 7 percent of 35- to 54-year-olds, and fewer than 2 percent of students over 54. Students with traditional (28%) and foreign (25%) high school diplomas had transfer rates higher than students who had a GED (12%) or who did not graduate from high school and/or were concurrently enrolled in adult school (13%).

Transfer rates differed substantially by race/ethnicity, even when looking at the group most likely to transfer eventually to a four-year institution, U.S. high school graduates between 17 and 20 years of age. White, API, Filipino, and students of other races were consistently more likely than Latino, black, and American Indian students to take a majority of first-year and/or second-year

transfer courses, and also eventually transfer to a four-year institution (see Table 8).¹⁶ In fact, the transfer rate for APIs was more than double the rate for black, Latino, and American Indian students, even though they were all of comparable age and previous educational level. This discrepancy still persists for 17- to 20-year-old U.S. high school graduates who took a majority of transfer courses in their first year. In other words, transfer rates for API students were twice the rate for black, Latino, and American Indian students even when they had comparable initial course choices, age, and previous educational levels.

Although providing associate's degrees has traditionally been a major function of community colleges, a very small percentage of all students from the 1997 cohort, 6 percent, received an associate's degree, regardless of transfer status. Because transfer-eligible courses are also associate's degree eligible, we report associate's degree results for students in both the first-year transfer and miscellaneous categories. Students who focused on miscellaneous or transfer-eligible courses in their first year had slightly higher associate's degree completion rates, at 9 percent. The share of first-year transfer or miscellaneous students who earned an associate's degree varied slightly by race/ethnicity and, more noticeably, by age and previous education. Between 9

Table 7. Percentage Distribution of Outcomes by First-Year Course-Taking Category, 1997 Cohort

Outcome	First-Year Course-Taking Category					All Students
	Transfer	Vocational	BS-ESL	Noncredit	Miscellaneous	
Transfer with an associate's degree	6	0	1	0	3	3
Transfer without an associate's degree	20	5	3	6	11	12
Associate's degree only	4	1	1	0	4	3
Other certificate	2	5	2	0	3	2
None	69	88	94	93	79	79

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Table 8. Transfer Course Taking and Rates for 17- to 20-Year-Olds with a High School Diploma by Race/Ethnicity, 1997 Cohort

Race/Ethnicity	% of Racial/Ethnic Group in First-Year Transfer Category	% of Racial/Ethnic Group in Second-Year Transfer Category	% of Racial/Ethnic Group That Transfers
American Indian	66	42	19
Other races	71	53	33
Filipino	72	56	32
Black	64	41	19
API	70	55	41
Latino	57	44	17
White	72	50	30

Source: Authors' calculations based on CCCCO data (see text box).

and 11 percent of whites, APIs, Filipinos, Latinos, and students of other races earned associate's degrees, while between 6 and 7 percent of American Indian and blacks earned one. Younger students were more likely to receive an associate's degree (11%) than older students (between 1 and 7 percent for the older age groups). In addition, students with tradi-

tional (11%) or foreign (13%) high school diplomas were more likely to earn an associate's degree than those with no high school (5%) or a GED (6%).

Students who were awarded other certificates made up the smallest percentage of all student outcomes (2%). This share did not vary with age, race, or previous education. However, a slightly

larger share of students (5%) who took a majority of vocational classes in their first year received a certificate. This share jumped to 14 percent for students who took a majority of vocational classes in both their first and second years.

In sum, the majority of community college students in our analysis did not transfer or receive any type of credential. Many of these students did not enroll in community college for these purposes. However, of the students who did intend to earn one (as identified by the kinds of courses they took), a majority did not.

Conclusion

California's community college system is distinct in its size, missions, and student composition. Although the plurality of community college students was white, Latinos and, to a lesser

. . . older students, Latino and black students, and students without a high school diploma . . . are less likely to eventually transfer to a four-year institution or earn an associate's degree, even when compared to students with similar course-taking characteristics.

extent, APIs constituted large and growing populations. Students of all ages were represented in the system. Females made up a slightly higher percentage of students than males. Most had no more than a high school diploma, but substantial numbers of students without a diploma, as well as college graduates, also enrolled.

We identify five main purposes for attending community college based on students' first-year course characteristics: transfer, vocational, BS-ESL, noncredit, and miscellaneous. Transfer-focused students were most common, constituting almost half of the community college population. Sixteen percent of students took primarily vocational classes, while 14 percent took a

majority of basic skills and/or ESL classes. Another 15 percent took a variety of courses, many of which are associate's degree eligible, and 7 percent took adult noncredit courses.

Students' reasons for attending community college differed substantially by demographic groups. Younger students were more likely to be transfer oriented, whereas the oldest students were more likely to concentrate on noncredit courses. These oldest students were predominantly female and white. In all racial/ethnic groups, about 40 percent or more of students had a transfer focus, although large shares of American Indians and whites also concentrated on vocational courses and large shares of Latinos and APIs also took a majority of BS-ESL courses. Students whose highest previous educational level was a traditional U.S. high school diploma were most likely to attend community college for transfer-level courses in their first year. Students without a high school diploma or with one from a foreign high school were more likely than others to focus on basic skills and ESL.

Community college demographics and course taking are diverse, especially compared with other higher education systems in California. The state's new accountability measures reflect this diversity; they require colleges to report progress and annual improvements in many academic

areas and also report comparisons to similar colleges and districts. The state appropriately recognizes that focusing narrowly on one performance indicator, even the most common one of transferring to a four-year institution, could potentially hurt other students.

The CCC system has the difficult role of providing educational opportunities for a large and diverse student population, arguably without adequate funding. Our findings show three major challenges facing the California community college system. First, the share of younger students is growing, while the share of older students is decreasing in size. Policymakers should determine if the declining age of community college students is because of lack of access or other reasons. The California Master Plan for Higher Education and the California Education Code specifically state that the CCC system's missions should reach both younger and older students, including those returning to school. It is possible that the increase in funding and decrease in student fees scheduled for 2007 will help alleviate enrollment decline for older students.

Second, attrition without degree completion or transferring is very high. Most students who focused on noncredit, vocational, or basic skills courses did not return the following year. It is possible that many of these students achieved their goals in one year. Yet, large shares of transfer

and associate's degree students, whose coursework presumably takes longer than a year, did not attend the next year either. Overall, most students did not transfer to a four-year institution or earn an associate's degree or other degree/certificate. About a quarter of transfer-focused students actually transferred, and about one in ten transfer- or degree-focused students earned an associate's degree.

Finally, while the CCC system enrolls students who are traditionally underrepresented in other higher education systems (such as older students, Latino and black students, and students without a high school diploma), this study shows that these students are less likely to eventually transfer to a four-year institution or earn an associate's degree, even when compared to students with similar course-taking characteristics. Community colleges are often hailed as a major pathway to a higher education degree for traditionally underrepresented groups. However, our results show that the pathway is not equally effective for all students. Policymakers and the CCC administration must address this challenge and focus greater effort on improving retention and outcomes for these students. ♦

Notes

¹ This percentage is based on the share of the total student enrollment in the University of California, California State University, and California community college systems in 2003, calculated from California Postsecondary Education Commission enrollment data.

² These figures represent the total enrollment of undergraduate and graduate students in each system in 2005.

³ The funding numbers in this paragraph come from personal communication with the CCCCO.

⁴ Thirteen percent of students in the 2003–04 cohort did not answer administrative questions regarding their goals.

⁵ The datasets also include students who reentered the community college system after at least a five-year lapse. Students in the 1997–98 dataset could have been in the community college system before the 1992–93 school year, and students in the 2003–04 dataset could have been in the community college system before the 1998–99 school year.

⁶ Copper Mountain College received full accreditation in June 2001, Folsom Lake College received initial accreditation in January 2004, and West Hills College–Lemoore received accreditation in July 2006.

⁷ During the 2003–04 school year, 53 percent of UC students and 59 percent of CSU students were female (CPEC, 2006).

⁸ The API category does not include Filipinos, who are reported in a separate category in CCC and CPEC data.

⁹ “Other races” describes students who indicated that they did not fall into any of the other racial/ethnic categories. In addition, 8 percent of students in the first cohort and 10 percent of students in the second cohort did not have a race/ethnicity recorded. These students are excluded from the analysis.

¹⁰ Most of this paper looks at students who start attending community college in either 1997 or 2003, but this particular figure looks at *total enrollment* in 2003, or the percentage of all students enrolled in each higher education system in 2003, regardless of when students started attending. Total enrollment is used in this figure for consistency of analysis among the three California public higher education systems.

¹¹ Although Driscoll (2006) looks at only two goals (transferring and associate's degree receipt) for ages 17 to 20, she also finds substantial variation by race/ethnicity.

¹² Non-U.S. citizens include permanent residents, refugees, asylees, temporary residents, student visa recipients, and students of any other noncitizen status. Students self-select one of these categories.

¹³ Our analysis excludes students under age 17, and therefore does not consider students concurrently enrolled in high school and community college.

¹⁴ Length of attendance measures the number of years between students' first and last terms, and does not account for gaps in attendance between the first and last term.

¹⁵ The CCCCO publishes annual Student Right-to-Know (SRTK) transfer rates for first-time freshmen with a goal of degree, certificate, or transfer and who are enrolled in award-eligible credit courses (CCCCO, 2001). While the SRTK definition of transfer differs from ours, the CCCCO finds that 25.5 percent of students starting community college in 1997 transferred to a four-year institution, which is consistent with our 26 percent figure.

¹⁶ These findings are consistent with Gill and Leigh (2005), who use the 1996–97 California community college cohort to find that Asians had the highest transfer rate, followed by whites, blacks, and Hispanics.

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