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DIVIDED WE FAIL:

Improving Completion and Closing Racial Gaps
in California's Community Colleges

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Executive Summary

California Must Increase Educational Attainment - Community Colleges are Key

The future of California depends heavily on increasing numbers of Californians with certificates, associate degrees, and bachelor's degrees. Educational attainment in California has been declining with each younger generation - a statistic that bodes poorly for the state's economic competitiveness. It is essential to increase educational attainment among the Latino population, as current levels are relatively low and the Latino share of the working-age population in California is projected to grow from 34% currently to 50% by 2040. With nearly one-fourth of the nation's community college students enrolled in California, success of the Obama Administration's college attainment agenda depends on California increasing completion rates and reducing performance gaps in its 112 community colleges.

Data-Driven Decisions are Gaining Momentum - California Can Join the Effort

State actions to increase college completion are growing, with 23 states (though not California) signed on to Complete College America, and other foundation-led initiatives involving still more states and college systems. These initiatives are helping states use data to understand how students, and which students, make, or fail to make, progress toward completion and to apply that knowledge by changing institutional practices. These efforts have identified policy change as a key element in the completion agenda. Policy that is well aligned with completion goals can enhance college efforts to increase student success, while poorly-aligned policies can thwart the best on-the-ground efforts. This report models how data can be used to identify ways to increase student success. It analyzes outcomes for over a quarter of a million degree-seeking students in the California Community Colleges (CCC), tracking those who entered in 2003-04 over six years. We analyze student progress through intermediate "milestones" as well as three completion outcomes: certificates, associate degrees, and transfer.

Key Findings: Rates too low; disparities too high; analysis points to solutions

■ Too few students reach milestones; racial/ethnic disparities abound (pp. 4-5)

Too many students fail to complete. Six years after enrolling, 70% of degree-seeking students had not completed a certificate or degree, and had not transferred to a university (about 75% of black students and 80% of Latinos). Most had dropped out; only 15% of the non-completers were still enrolled.

Critical milestone is missed. Only 40% of degree-seeking students had earned at least 30 college-level credits at the CCC, the minimum needed to show a significant economic benefit. A lower share of Latino (35%) and black (28%) students reached this milestone.

Latinos face more bumps at the end of the road. The 30 credit threshold can provide "momentum" for completing an educational program. However, fewer Latinos who reach that point complete a certificate, degree, or transfer (47%), compared to white (60%), Asian-Pacific Islander (58%), and black (53%) students.

■ Transfer does not mean completing two years of study (as we commonly assume), especially for black students (pp. 6-7)

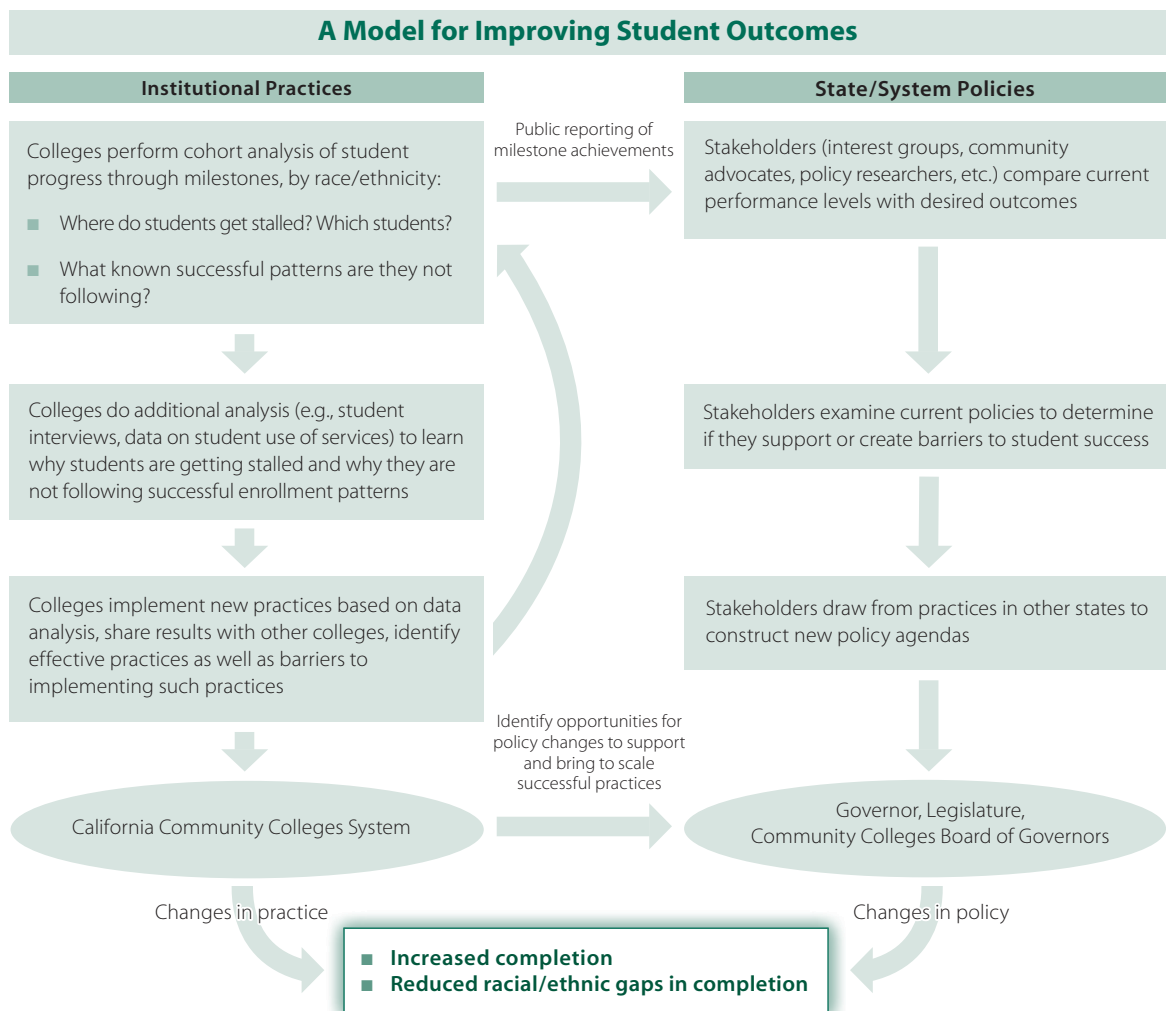
Transfer success is low. About 23% of degree seekers transferred to a university, and Latino students were only half as likely as white students to transfer (14% vs 29%).

Majority of students do not follow Master Plan intent. Many who did transfer did not first complete a transfer curriculum (43% completed it) at the CCC, meaning that “transfer” signifies something less than the completion of the first two years of a bachelor’s degree as was intended in the design of California’s Master Plan. Only half (52%) of transfer students transferred to a California public university.

For-profit sector’s role is growing. An increasing share of transfer students is enrolling in the for-profit sector, where what little is known about student outcomes provides ample reason for concern about poor outcomes and high indebtedness. Black students are especially likely to transfer to for-profit institutions, and to leave the CCC system with fewer credits completed. A complex transfer process and enrollment limits at UC and CSU help account for this trend.

■ **Demographics are not destiny (p. 8)**

Completion rates and levels of disparity vary. The widely varying rates of completion and levels of disparity across colleges of similar size and similar shares of under-represented minority students suggest that some colleges find ways to be more effective at helping students of all backgrounds make progress.



Executive Summary

■ Patterns of student enrollment provide clues for improvement (p. 9)

Students who followed certain enrollment patterns did much better. 59% of students who earned at least 20 credits in their first year completed a certificate, degree, or transfer within six years compared to 21% who did not; 55% of students who passed college math within two years completed, compared to only 21% who did not; for English the numbers were 50% and 20%.

But few students followed the successful patterns, with large racial/ethnic gaps. Only 25% of degree seekers earned at least 20 credits in the first year; 29% passed at least one college-level math course within two years; 36% passed at least one college-level English course within two years (black students were the least likely to follow these patterns); on average, degree-seeking students dropped or failed over one third of the credits they attempted – blacks completed only one-half the credits they attempted.

Recommendations: Practice, Policy, and their Integration (see diagram on page ii and pp. 12-14)

Action to increase completion for all students and reduce racial/ethnic disparities must occur on two mutually supportive fronts: *changes to institutional practices* at the college level and *changes to state and system policy*. Both rely on the strategic use of data to track student milestone achievement and enrollment patterns. And they come together as stakeholder agendas to reform policy become fully informed by public reporting and as colleges meet with their peers to discuss policy barriers that are preventing implementation of effective practices.

■ Improving campus practices

- The Chancellor's Office should coordinate a systemwide, and systematic, effort by which cohort data for student progress through milestones and key enrollment patterns are analyzed for every college. Colleges should supplement cohort data with other analyses and use results to institute changes to campus practices. A formal process, perhaps using peer groups, should be adopted for campuses to share effective practices and their impacts.

■ Improving system and state policy

- A new funding model should be adopted that rewards colleges for helping student progress through milestones, including completing college English and math, and for helping under-prepared students meet key milestones.
- The Board of Governors should change system policy, and seek statutory changes as necessary, to ensure that all degree-seeking students are assessed for college readiness and are directed appropriately into courses that will expedite their transition to, and success in, college-level instruction.
- The Legislature should take steps to guard against erosion of the historic transfer function of community colleges by investigating recruiting practices and completion rates at for-profit colleges, enacting policies that encourage students to earn associate degrees prior to transfer, and ensuring sufficient capacity at UC and CSU for transfer students.

■ Bridging practice and policy

- Colleges should publicly report milestone data, by subgroup (race/ethnicity, gender, age).
- Colleges should identify common policy barriers that prevent them from implementing new practices.

More California Community College Graduates are Needed: Data Can Show the Way

California is preparing too few people with the skills necessary to fill job openings the state could produce in occupations that pay a living wage. The Public Policy Institute of California estimates that California could create jobs for one million more bachelor's degree holders than the state is currently on track to produce.¹ Occupations that require some postsecondary education, but do not require a bachelor's degree, are also expected to face worker shortages. These middle skill jobs represent the largest share of jobs in California and the largest share of future openings.² In particular, there are expected shortages at all levels of postsecondary achievement in the kinds of science, technology, engineering, and mathematics (STEM) occupations that are so important to California's information-based economy,³ and in critical health care fields.⁴ The projected shortages⁵ arise from educational attainment not keeping up with the needs of the labor market, which has been shifting toward workers with college degrees (Figure 1).

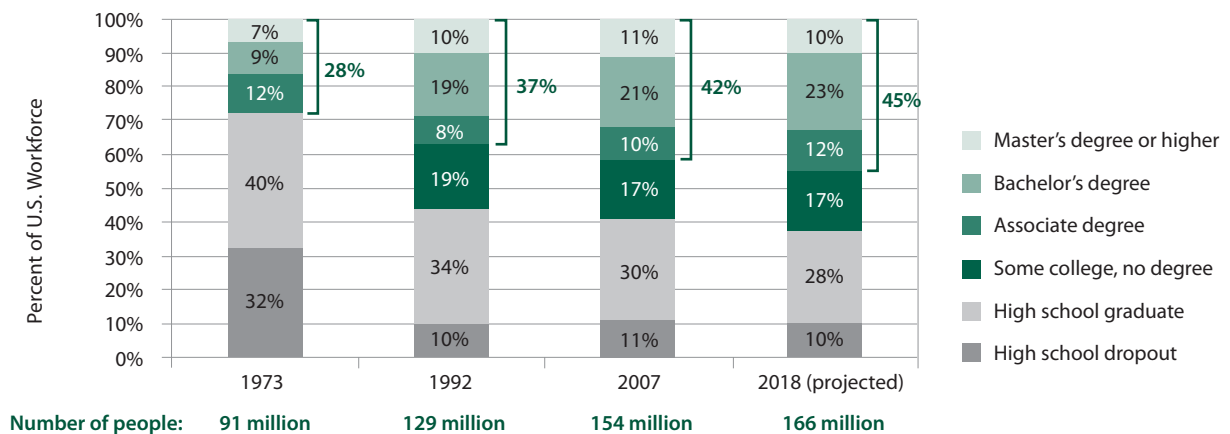
Inadequate educational attainment in California mirrors national trends, where the data suggest that today's generation of young adults will be less educated than the previous generation without quick intervention to increase college enrollment and, especially, degree completion. The United States ranks 10th among Organisation for Economic Co-operation and Development (OECD) nations in the share

of young adults ages 25-34 with at least an associate degree, and the trend in other OECD countries is toward increasing levels of educational attainment for each successive generation, while attainment has fallen off for young adults in the U.S. (Figure 2). *College attainment in California has actually been declining with each younger generation*, a trend that, if not reversed, bodes poorly for the state's economic competitiveness with other states and countries.

While college participation rates are too low in many states, the bigger problem in California and elsewhere is low college completion rates, particularly for low-income students and those from the growing populations historically under-represented in higher education.⁶ In California, a major reason for under-production of bachelor's degrees is the large Latino enrollment in the community colleges (where transfer to four-year institutions is problematic) rather than in four-year institutions.⁷ Educational attainment among the growing Latino population is a particular concern, as the Latino share of the working-age population in California is projected to grow from about 34% currently to 40% in 2020 and 50% in 2040.⁸ Only 16% of working-age (25-64) Latino adults in California currently have a college degree (associate or higher), compared to 50% of white adults.⁹

Nationally, efforts are growing to address the threat posed by declining educational attainment. Twenty-three states

Figure 1
Educational Attainment Level in the Workforce Continues to Shift Toward College Degrees

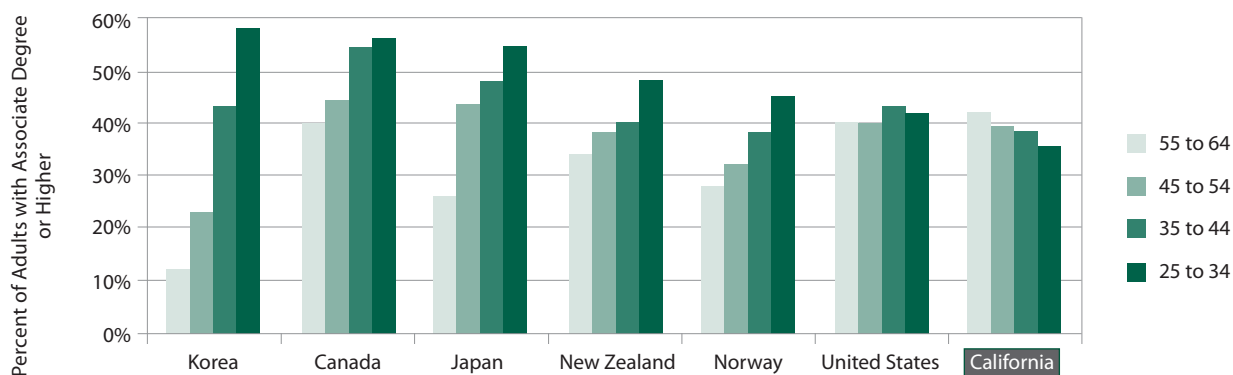


Note: 1973 data did not include "some college" category

Source: Center on Education and the Workforce, Georgetown University, *Help Wanted: Projections of Jobs and Education Requirements through 2018* (June, 2010), based on analysis of data from the U.S. Census Bureau's Current Population Survey

More California Community College Graduates are Needed: Data Can Show the Way

Figure 2
Percent of Adults with an Associate Degree or Higher by Age Group - Leading OECD Countries, the U.S., and California



Source: National data are from the Organisation for Economic Cooperation and Development’s *Education at a Glance 2010*. Not shown on the graph are Ireland, Denmark, Belgium and Australia, which also rank ahead of the U.S. on attainment among young adults (and have increasing attainment levels for younger populations). Data for California are from the American Community Survey 2006-2008 3-year estimates

(though not California) have signed on to Complete College America, a foundation-funded initiative to dramatically increase the college completion rate through state policy change.¹⁰ The National Association of System Heads and The Education Trust are working with 24 public higher education systems across the country to reduce the gaps in outcomes for low-income and minority students.¹¹ The Lumina and Gates foundations have set ambitious goals for increasing the nation’s college attainment rate. The Obama Administration has set a goal for the nation to once again lead the world in postsecondary degree attainment, bringing increased attention to the importance of community colleges in meeting that goal.

Nowhere is the national priority of improving community college outcomes more important than in California, where nearly one-fourth of the nation’s community college students are enrolled and where, with a high and growing percentage of Latino students, the benefits of closing the racial/ethnic performance gaps is the greatest. These 112 colleges are vital to the future social and economic health of California, as well as to the success of the national agenda to restore America’s competitive position in the global economy. But the challenges are many. Reflecting socioeconomic status and the quality of the schools they attend, Latino students in California’s K-12 education

system demonstrate lower levels of proficiency in math and language arts as they enter high school, they take fewer advanced math and science courses while in high school, they are less likely to graduate and are less likely to have completed a college-preparatory curriculum when they do.¹² Latino students are more likely to begin their postsecondary education in a community college,¹³ putting a premium on the effectiveness of these institutions for addressing the disparity in educational attainment, and highlighting in particular the critical role of the transfer process in increasing baccalaureate attainment.

Data Analysis of Student Progress Can Help Show the Way

College completion initiatives are encouraging colleges to use data (and cohort data in particular¹⁴) to understand how students (and which students) make, or fail to make, progress toward completion and to apply that knowledge by changing institutional practices. These initiatives have also identified state policy as a vital partner in student success efforts. Some existing policies may actually impede colleges from adopting better approaches. These initiatives are pushing states to adopt policies that are optimally supportive of effective college practices.

We adopt the same perspective in this report. We use CCC cohort data to examine student progress through intermediate outcomes and on to the completion of certificates, degrees and transfers, in order to understand where student progress stalls. We demonstrate how this kind of data analysis can be *used by colleges to identify more effective practices*. And we suggest how *state and system policies could better support colleges* in their efforts to implement more effective practices. The report is organized into several sections:

- We examine students' progress in reaching certain *milestones*, or measurable intermediate achievements along the pathway to a degree, as we have done in recent reports.¹⁵ We describe the gaps across racial/ethnic populations in the share of students reaching these milestones.
- We highlight some of the specific patterns exhibited by transfer students, to inform current efforts to improve the transfer function of the community colleges.
- We briefly discuss the variation across similar colleges in both completion rates and levels of racial/ethnic disparity.
- We show the extent to which students are following enrollment patterns that make ultimate degree completion more likely, and the gaps across racial/ethnic groups in following those patterns.
- We offer conclusions and recommendations for educators and policymakers.

In our analyses, we focus on “degree seekers” – defined as those enrolling in community college for the purpose of earning a certificate or degree or transferring to a university (see Data and Methods box).

Data and Methods

Data Source: California Community Colleges Chancellor's Office

The student unit record (SUR) data from the Chancellor's Office Management Information System (COMIS) include demographic information, course-taking records, and records of degrees/certificates earned and transfers to 4-year universities (based on matches to the California State University, the University of California, and the National Student Clearinghouse). We obtained data for the entering cohort of first-time CCC students who enrolled in credit courses during the 2003-04 academic year. Non-credit students and high school students concurrently enrolled in community college were excluded. We tracked the students over a 6-year period, through 2008-09.

Methods

The analyses focus on students identified as “degree seekers” (a term we use to include degrees and certificates) based on having enrolled in more than six units during the first year. This definition was proposed by the prominent higher education researcher Clifford Adelman as one element of improving the federal methodology for calculating community college graduation rates.¹⁶ Using Adelman's criterion, about two-thirds of students (255, 253) in the cohort were identified as degree seekers. We calculated the percent of students who reached milestones, the rates of milestone achievement by race/ethnicity, and the share of students following a selected set of enrollment patterns that research demonstrates are correlated with degree completion. We use four broad racial/ethnic categories: white, Asian-Pacific Islander, black, and Latino. (Although the CCC collect data for several sub-populations within the Asian-Pacific Islander and Latino categories, the data we received had been aggregated into larger categories. There may be substantial differences across sub-populations that are masked by using one category.) In some cases we show results for black, Latino, and Native American students together in a combined group of under-represented minority (URM) students.

Too Few Students Reach Milestones on the Road to Degree Completion

Figure 3 shows the percent of degree seekers in a cohort of CCC students that achieved different milestones (intermediate milestones and completions) within six years:

- By the second year, cohort enrollment had fallen nearly by half.¹⁷
- The majority of students achieved “college pathways status” – a term used by researchers for completion of at least 12 college-level credits.¹⁸
- Two out of five students earned one year of college-level credits (30 semester credits¹⁹), the minimum that research has found to correlate with a significant increase in earnings.²⁰

- 15% completed a transfer curriculum (as best we can define it²¹), smaller than the share that actually transferred to a university (23%), indicating that many students transfer without first completing two years of study.
- A very small portion earned a certificate and only 11% were awarded an associate degree.
- About 31% completed a certificate or degree, or transferred to a university within six years of enrolling in the CCC²² (most of the non-completing students had dropped out; only 15% were still enrolled).

Figure 3
Milestone Attainment and Completion within 6 Years

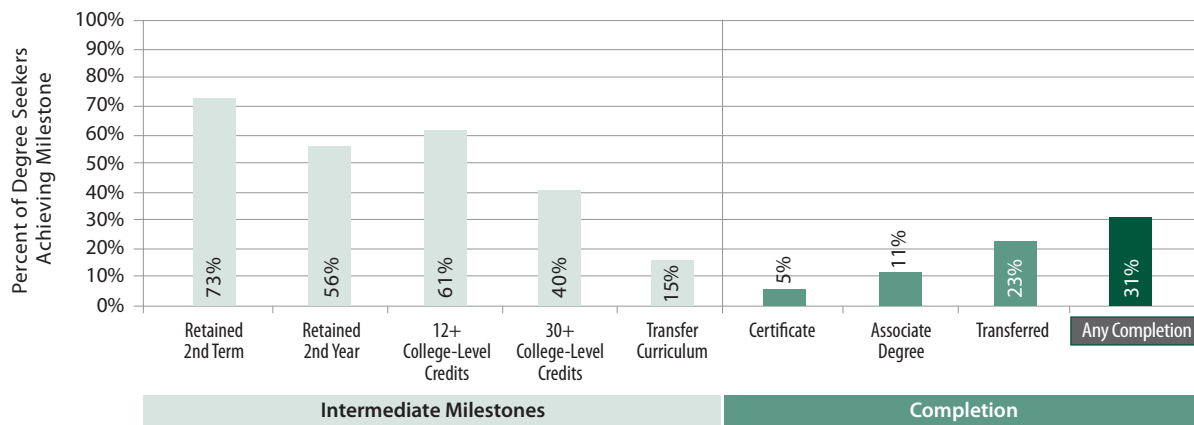
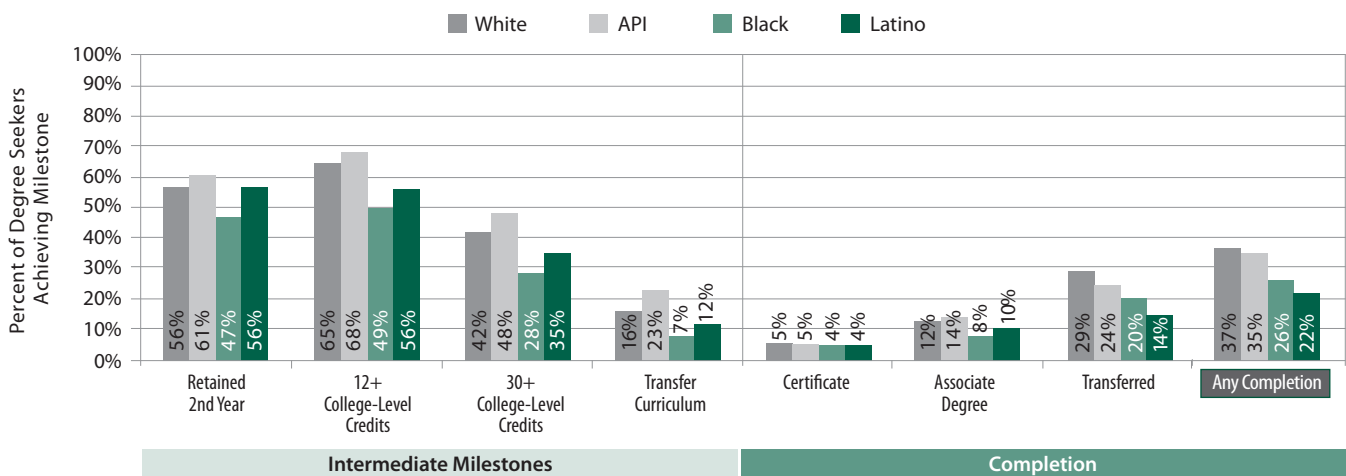


Figure 4
Milestone Attainment and Completion Within 6 Years by Race/Ethnicity



Note: students can be double-counted in the certificate, associate degree, transfer measures

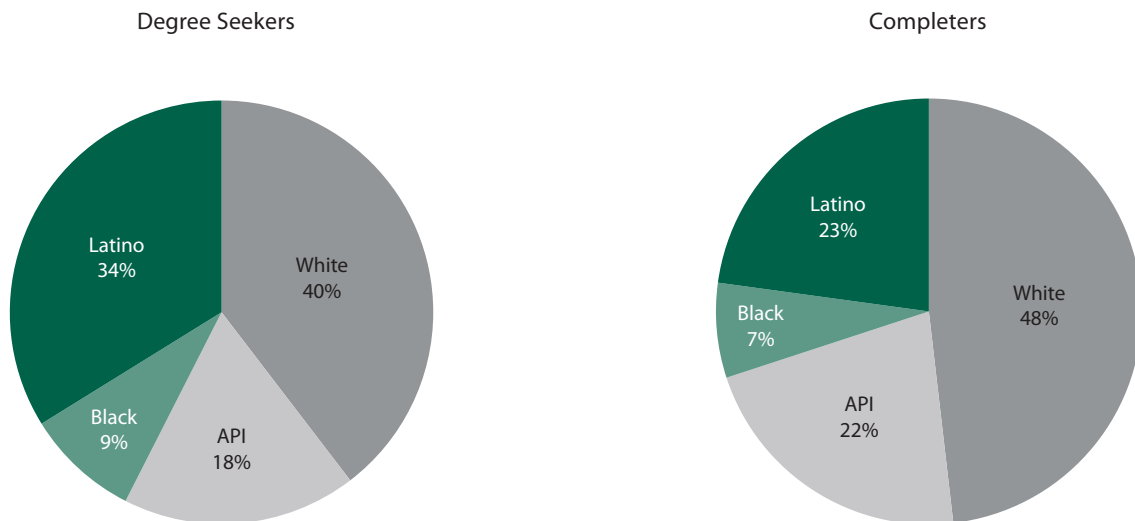
Black and Latino students were less likely to reach milestones than white and Asian-Pacific Islander (API) students (Figure 4):

- Latino students were about as likely as white students to persist to the second term (not shown) and second year, but they were less likely to reach the other milestones, and were only half as likely as white students to transfer (14% vs 29%). Through follow up analysis we learned that, of all students who reached the 30 credit milestone, Latino students were the least likely to advance to completion.
- Black students were also less likely than white students to transfer (20% vs 29%), having somewhat higher transfer success than Latino students, but they were the *least likely* to complete a transfer curriculum prior to transferring.
- More than one-third of white (37%) and API (35%) students completed something (certificate, degree, or transfer), compared to 26% of black students and 22% of Latinos.

- The comparatively low overall completion rate for Latino students was largely related to their low rate of transfer.
- Black students completed certificates and degrees at a lower rate than Latino students, but their higher likelihood of transfer (though mostly without completing a transfer curriculum) led to a higher overall completion rate.

Because of their lower rates of success, under-represented minority (URM) students made up a much lower share of “completers” (30%) than they did of incoming degree seekers (43%)(Figure 5). The drop from entry share to completion share was largely accounted for by Latinos, who accounted for a third of incoming degree seekers but less than a quarter of completers.

Figure 5
Racial/Ethnic Distribution of Degree Seekers Compared to “Completers”



Transfer Doesn't Mean Completing Two Years, Especially for Black Students

Community colleges are essential to the production of baccalaureate degrees in California. The state's Master Plan limits freshman admission at public universities to the top third of high school graduates. Some students who do graduate in the top third choose to enroll first in a community college, intending to transfer. It may be surprising to those familiar with this design feature of the Master Plan to learn that "transfer" does not mean what it has commonly been assumed to mean: the movement of students from the CCC to the University of California (UC) or California State University (CSU) after earning two years of credit toward a bachelor's degree.

Many students transfer without completing a transfer curriculum or earning an associate degree

As shown in Figure 6:

- Only 43% of students who transferred to a university had completed a transfer curriculum at the CCC, which requires at least 60 transferable credits, including English and math.
- About one-fourth earned an associate degree.
- Black transfer students were far less likely than others to complete a transfer curriculum, with only 22% doing so.

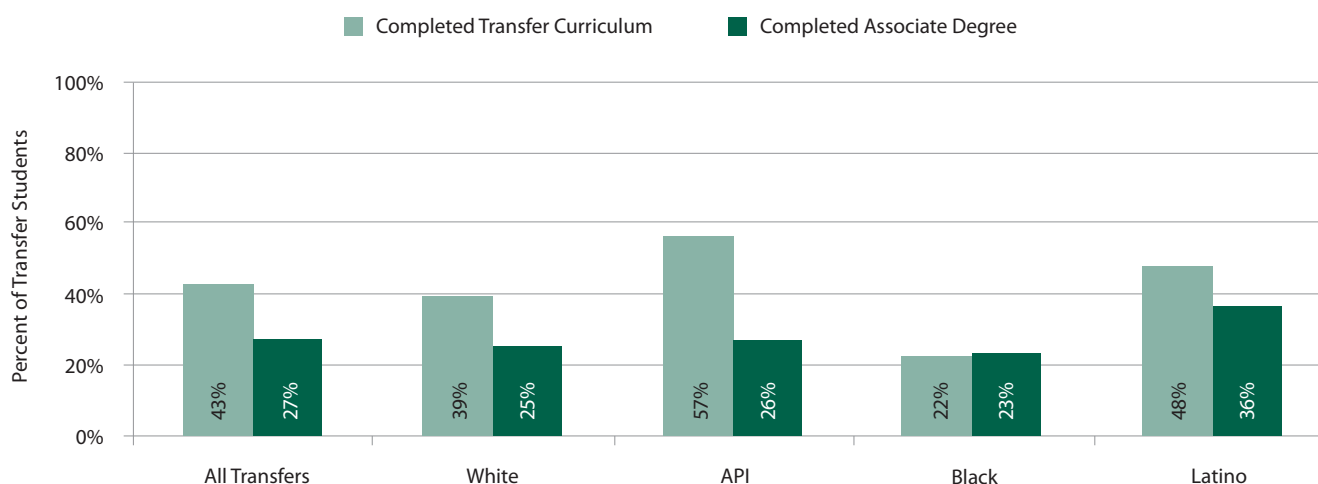
- While Latino students were the least likely to transfer, those who did were actually more likely than most others to have completed a transfer curriculum or associate degree.

UC and CSU accept very few transfer students at the freshman or sophomore levels so most transfers to in-state public universities have completed a transfer curriculum.²³ UC and CSU transfers earned an average of 68 transferable credits at community college. Students who transferred *without* completing a transfer curriculum or an associate degree earned an average of only 22 transferable credits. Because of UC and CSU policies, these students are mostly transferring to private nonprofit and for-profit institutions that do not require transfer students to be prepared to begin junior-level study at a university.

Only half of transfers enroll in CSU or UC – with key differences by race/ethnicity

Another surprising finding, in view of the Master Plan, is that only half (52%) of the transfers were to one of the state's public universities. As noted, this reflects the low percentage of transfer students who complete a transfer curriculum. Figure 7 shows some striking differences across racial/ethnic groups in transfer destination:

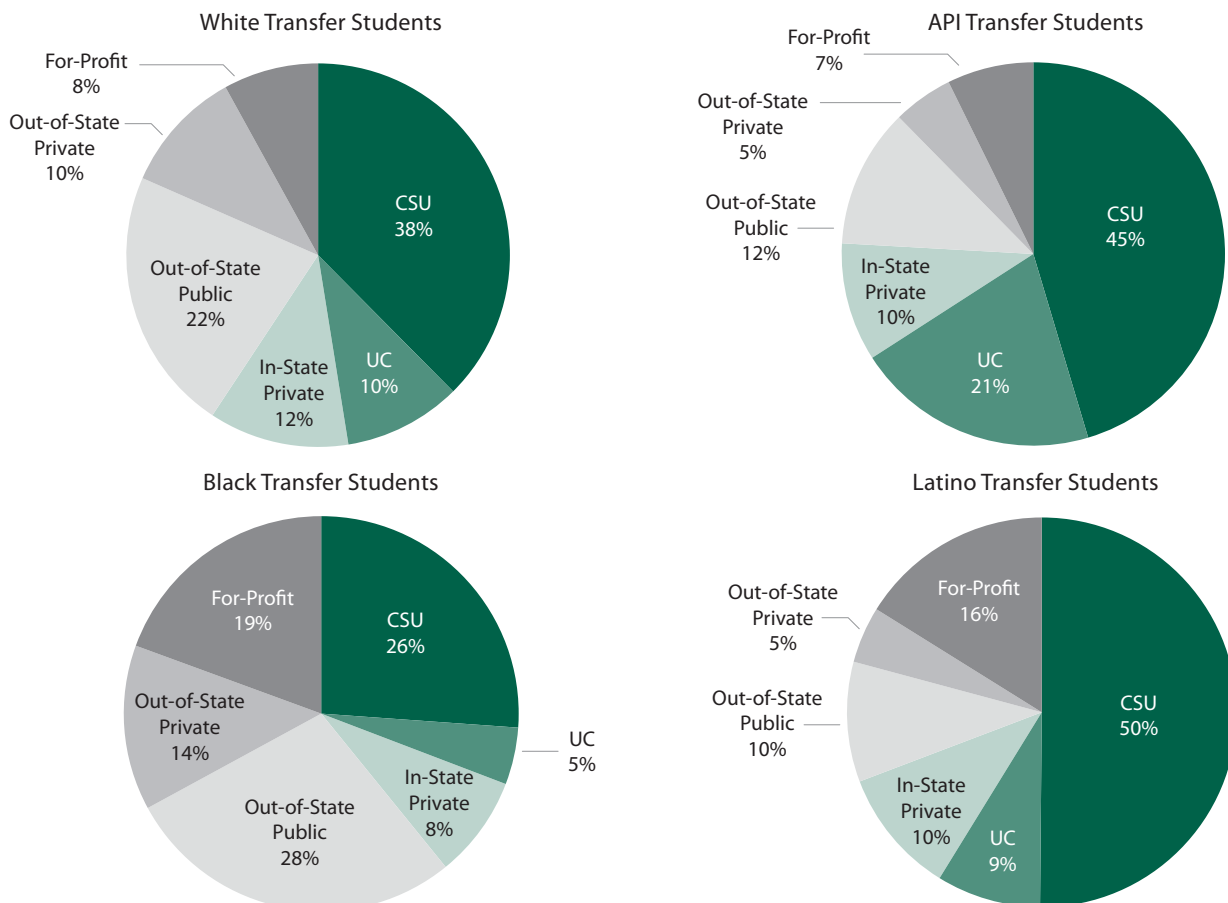
Figure 6
Most Transfer Students Have Not Completed Two Years of Credits



- Asian-Pacific Islanders and Latinos were the most likely to enroll in one of the state's public universities, and black students were the least likely. There were differences across racial/ethnic groups in the division of those transfers between UC and CSU. Fifteen percent of the black and Latino transfers to the state's public universities enrolled in UC, compared to 21% of white transfers and 31% of API transfers.
- Black transfer students were more likely to enroll in out-of-state public and private institutions (42%) than in CSU or UC (31%), and nearly one in five (19%) enrolled in for-profit colleges,²⁴ more than twice the share among white and API transfers.
- Latino transfers were the least likely to go to out-of-state institutions (15%), but nearly as high a share (16%) enrolled in for-profit colleges as among black students.

Transfer of CCC students to the for-profit sector has been increasing dramatically in recent years. For example, the annual number of transfers to the University of Phoenix increased by 33% between 2003 and 2008, from 6,638 to 8,825.²⁵ Over the same five-year period, transfers to CSU increased by 8% (from 50,746 to 54,971) and transfers to UC increased by 13% (from 12,275 to 13,909). Likely reasons for the disproportionate growth in transfers to for-profit colleges include capacity constraints in CSU and UC due to cuts in state funding, complex requirements for transfer admission to CSU and UC, and recruiting efforts by the for-profit institutions. Whatever the reasons, the trend bears watching given (1) the large investment of state resources in the for-profit colleges through the Cal-Grant program²⁶ (2) concerns about low graduation rates,²⁷ recruiting practices, and educational quality in that sector,²⁸ (3) the excessive debt loads and high loan default rates of their students, and (4) diminishing capacity at UC and CSU to receive transfer students.

Figure 7
Transfer Destination Varies by Race/Ethnicity



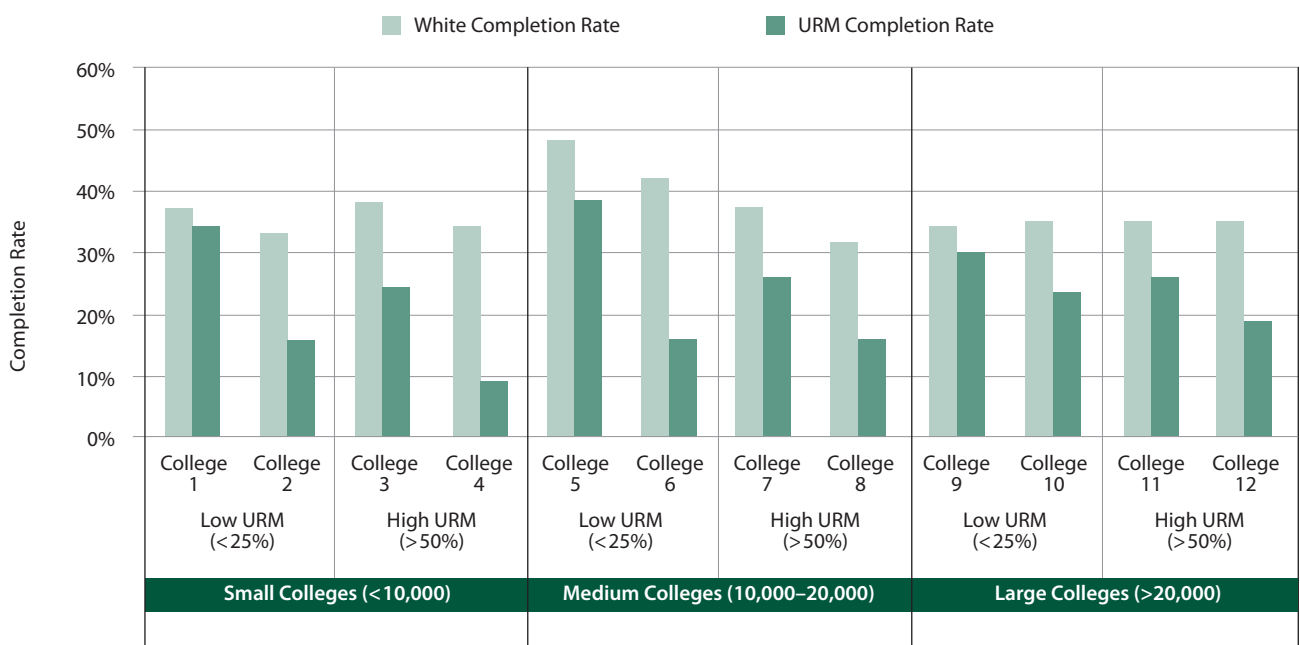
Some Colleges Achieve Better Parity in Outcomes by Race/Ethnicity

We, like other researchers, have documented lower rates of success among URM students, a troubling condition that is often attributed to factors that vary by race/ethnicity rather than to race/ethnicity *per se*, including socioeconomic status and academic preparation.²⁹ URM students in California's community colleges are more likely to have attended highly segregated, over-crowded K-12 schools with high concentrations of low-income students, limited access to well-qualified teachers and counselors, and fewer opportunities to engage in a rigorous college-preparatory curriculum.³⁰ It is undoubtedly true, as the colleges have argued,³¹ that the resources provided to them are inadequate to the task of serving students with many obstacles to overcome on the path to a college degree. But since funding per student is nearly equalized across the colleges,³² variations in outcomes across colleges of similar size and demographic composition³³ would suggest that some colleges are using the resources they have more effectively to help students of all backgrounds make progress.

To test this notion we compared the completion rates of URM and white students in individual colleges.³⁴ We divided

the colleges by size of enrollment and by the share of URM students among degree seekers, and found wide variation in both completion rates and disparity levels. For example, as shown in Figure 8, Colleges 1 and 2 are both small colleges (total enrollment of <10,000) with a low share (<25%) of URM students. The overall completion rate for URM students in College 1 was 34%, nearly the same as the completion rate for white students (37%). College 2 had a much larger disparity in outcomes, with white students completing at more than twice the rate of URM students (33% and 16%, respectively). Among large colleges (total enrollment of >20,000) with a high share (>50%) of URM students, Colleges 11 and 12 had identical completion rates for white students (35%) and lower rates for URM students, but College 11 had less of a disparity between the two rates. In each enrollment/URM category we could identify a college that had, for whatever reasons, been able to minimize the completion rate disparity. It must become a systemwide priority to identify effective practices for helping disadvantaged students overcome barriers and to promote universal adoption of effective practices across the system.

Figure 8
Some Colleges Are More Effective with URM Students;
Colleges of Similar Size and Demographic Profile Produce Very Different Outcomes



Too Few Students Follow Successful Patterns – Racial Gaps Appear Here as Well

The research literature has revealed much about the enrollment patterns that are associated with student progress and degree completion.³⁵ The value in finding and monitoring these patterns is in using that knowledge to encourage more students to follow them. In a study titled *Steps to Success*, we used data for an earlier cohort of CCC students to show that students were more likely to make progress along the milestones and complete a certificate, degree, or transfer if they followed certain patterns, including:

- passing college-level math and English early in their college career (grade C or better)
- taking a college success course
- gaining momentum through credit accumulation by enrolling full-time and continuously, completing at least 20 credits in the first year of enrollment, earning credits during summer terms, and avoiding excessive course withdrawals and late registration.

The differences between following and not following successful patterns can be great. Note the following three examples of how students who followed the successful patterns had much higher rates of completing certificates, degrees, or transfers than students who did not follow those particular patterns:

Passed college-level English within 2 years?

- Yes → 50% completed | ■ No → 20% completed

Passed college-level math within 2 years?

- Yes → 55% completed | ■ No → 21% completed

Accumulated at least 20 credits in first year?

- Yes → 59% completed | ■ No → 21% completed

Figures 9 and 10 show that too few students in the CCC are following successful patterns, and that URM students trail in nearly every case. Only 25% of degree seekers earned at least 20 credits in the first year, and a similar share (29%) completed at least one college-level math course within two years (Figure 9). Slightly more (36%) successfully passed at least one college-level English course within two years. More than one-third of API students followed each of these patterns. Black students were the least likely to complete math and English early and to earn 20 credits in the first year. More detailed analysis of student enrollment patterns can help explain what students are doing if not following successful behaviors. As one example, we found that of students who did not pass college math within two years:

- 54% attempted no math courses
- 29% enrolled in math but only at the remedial level
- 17% enrolled in at least one college math course but dropped or failed the courses.

One obvious implication of this analysis is that colleges can do more to encourage students to enroll sooner in math courses.

On average, degree-seeking students completed 63% of attempted credits, meaning they dropped or failed more than one-third (Figure 10). Black students completed only half of the credits they attempted. Latino students dropped or failed more than 40% of their credits.

Figure 9
Few Students Follow Successful Enrollment Patterns

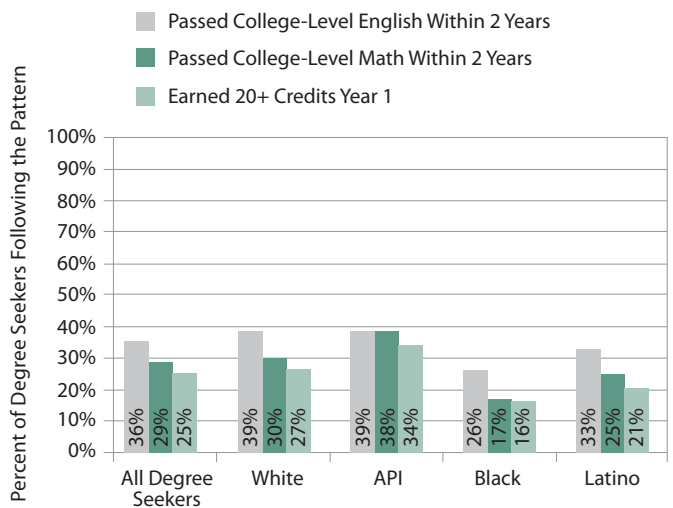
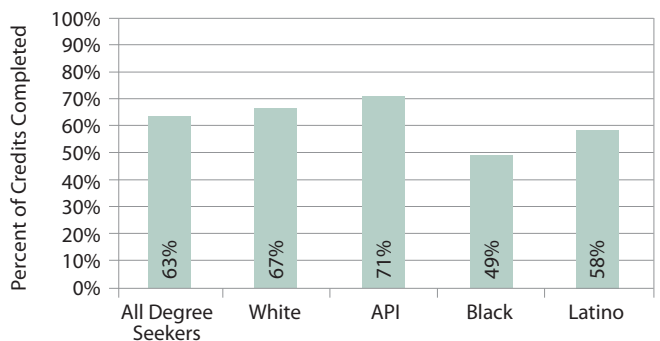


Figure 10
Percent of Credits Completed by Race/Ethnicity



Summary of Findings: Serious Problems but Tools for the Job

Our analysis of outcomes, by race/ethnicity, for the 2003-04 cohort of CCC students leads to several key findings.

Completion rates must rise; disparities must fall. *The rates of progress and completion among CCC students are far too low to meet California's projected demand for educated workers. There are disparities by race/ethnicity at every step of the way that will exacerbate the problem given demographic trends unless business as usual ends and fundamental changes are introduced to increase student success.*

- **30% completion rate is too low.** Six years after initially enrolling in the CCC, only 30% of degree-seeking students had completed a certificate or degree, or had transferred to a university. Most of the other 70% had dropped out; only 15% were still enrolled. Only 26% of black students and 22% of Latino students had completed or transferred after six years.
- **Critical milestone is missed.** Only 40% of degree-seeking students had earned at least 30 college-level credits at the CCC, the minimum needed to show a significant economic benefit. An even lower share of Latino (35%) and black (28%) students reached this milestone.
- **Latinos face more bumps at the end of the road.** The 30 credit threshold can provide “momentum” for completing an educational program. However, fewer of the Latinos who reached that point completed a certificate, degree, or transfer (47%), compared to white (60%), Asian- Pacific Islander (58%), and black (53%) students.

Transfer is not what we tend to think it is. *Transfer – one of the “completions” we report – should be raising red flags because patterns of transfer do not follow the Master Plan intent. Most students transfer before finishing two years of study (many well before) and a growing share, especially of black and Latino students, is transferring to for-profit institutions, where there are growing concerns about low completion rates and high levels of student debt.*

- **Transfer success is low.** About 23% of degree seekers transferred to a university, and Latino students were only half as likely as white students to transfer (14% vs 29%).

- **Majority of students do not follow Master Plan intent.** Only 43% of transfers completed a transfer curriculum (60 transferable credits including English and math) before transferring and just 27% of transfers earned an associate degree. Barely half (52%) of transfer students enrolled in a California public university, where completion of at least 60 transferable units is generally required. For a variety of reasons, which need to be explored, the community college transfer function is not primarily serving to direct students into upper division study at UC and CSU.
- **For-profit sector's role is growing.** An increasing share of transfer students is enrolling in the for-profit sector, where what little is known about student outcomes provides ample reason for concern about poor outcomes and high indebtedness. The students going to the for-profit sector are disproportionately the under-represented minority populations whose degree attainment levels we most need to improve. Black students are especially likely to transfer to for-profit institutions and to leave the CCC system with fewer credits completed.

Demographics are not destiny. *As open access institutions, community colleges serve many students facing serious obstacles to success, including the under-represented minority populations whose poorer outcomes we have documented in this report. Yet we found that some colleges show better outcomes for such students than their peers.*

- **Some colleges may have found better practices.** Poorer outcomes for under-represented minority students are undoubtedly related to socioeconomic status and level of academic preparation for college. But the widely varying rates of completion and levels of disparity across colleges of similar size and similar shares of under-represented minority students suggest that some colleges are finding ways to be more effective at helping students of all backgrounds make progress, despite budgetary and other barriers.

Patterns of student enrollment provide clues for

improvement. *Research has documented that certain enrollment behaviors increase student chances of success but few CCC students are following those patterns; targeting new efforts to encourage more effective enrollment patterns could be a high-yield strategy. Analyzing these differences by race/ethnicity reveals additional opportunities for new approaches.*

- **Students who followed certain enrollment patterns did much better.** As examples: 50% of students who took and passed college English within two years completed a certificate, degree, or transfer within six years, compared to only 20% of students who did not; 59% of students who earned at least 20 credits in their first year completed within six years, compared to 21% of students who did not. Other examples abound and provide ample opportunity to focus campus strategies.
- **But few students followed the successful patterns.** Students are not taking and completing gateway courses early. Only 25% of degree seekers earned at least 20 credits in the first year; only 29% completed at least one college-level math course within two years; 36% successfully passed at least one college-level English course within two years (black students were the least likely to complete math and English early and to earn 20 credits in the first year); on average, degree-seeking students dropped or failed over one-third of the credits they attempted, with black students completing only half the credits they attempted.

Recommendations: Using Data to Improve Institutional Practice and State/System Policy

Action to increase completion and reduce racial/ethnic disparities must occur on two mutually supportive fronts: *changes to institutional practices* at the college level and *changes to state and system policy* (see Diagram on p.ii). Both rely on the strategic use of data to track student milestone achievement and enrollment patterns. There are promising efforts underway across the CCC to improve practice; policy reform efforts are moving more slowly. There are ample opportunities for colleges to target strategies more effectively, based on data, to produce better student outcomes. At the same time, state and system policy changes can enhance college efforts to improve outcomes just as poorly conceived policies can thwart the best college efforts to help students succeed.

Recommendations to Improve Institutional Practice

1 The Chancellor’s Office should coordinate a systemwide, and systematic, effort by which cohort data are analyzed for every college.

- Every college should, on the basis of these analyses, set goals for improving its completion rates and reducing disparities.
- All colleges should use a common framework for analysis that includes a set of milestones and a set of enrollment patterns that have been documented to correlate with success. We suggest the following components for analysis and reporting, all compiled by subgroup (race/ethnicity, gender, age):

Milestones
■ 2nd term retention
■ 2nd year retention
■ 12+ college credits
■ 30+ college credits
■ Transfer curriculum (60 transferrable credits, including English and math)
■ Certificate
■ Associate degree
■ Transfer – with transfer curriculum
■ Transfer – without transfer curriculum

Enrollment Patterns
■ Attend full-time in first term
■ Take college success course
■ Enroll continuously
■ Pass college-level math within 2 years
■ Pass college-level English within 2 years
■ Complete 20+ credits in first year
■ Earn summer credits
■ % course withdrawals
■ % course late registration

Table 1 shows how we used these metrics to suggest changes in institutional practice - but if each college analyzed its own data, strategies at each college could be ideally targeted to individual circumstances.

Table 1
Examples of How Cohort Analysis Can Point to Campus Practices

What we found:	What institutional practices might help:
A small percentage of students are earning at least 20 first-year credits, failing to build momentum	<ul style="list-style-type: none"> ■ College success course ■ Better financial aid counseling to emphasize benefits of full-time enrollment ■ On-line summer courses
Students are failing or withdrawing from a significant portion of their courses	<ul style="list-style-type: none"> ■ Early alert systems to contact students at the first sign of trouble and direct them to help ■ Limits on course drops and repeats or extra fee for course withdrawal past a certain date or for course repeats
A small percentage of students are completing college-level math and English within two years	<ul style="list-style-type: none"> ■ Orientation and advising to emphasize importance of taking the courses early ■ Learning communities for basic skills students
Students transfer well short of credits to begin junior-level work	<ul style="list-style-type: none"> ■ Transfer advising to encourage effective course-taking
Students reach 30-unit milestone but do not progress to completion	<ul style="list-style-type: none"> ■ Support programs modeled after “first year experience” but for later years

- Colleges should supplement cohort analysis with more in-depth study, (e.g., student interviews, data on student use of support services) to better understand why students are getting stalled and why they are not following successful enrollment patterns.
- A formal process should be initiated by which colleges, perhaps organized by peer group, share information about the changes in institutional practice they have implemented as a result of their analyses and what impact their new practices have had on the measures of student progress.

Recommendations to Improve Policy to Better Support College Success Strategies

Policy is a vital partner in student success efforts. As important as it will be for colleges to study their data and implement new approaches, there is a limit to what can be accomplished without changes to the policy environment in which colleges operate. When policy is well aligned with goals of student success, colleges can more easily take the steps that are suggested by their data analysis. National initiatives to increase college completion, spurred by major foundations, are pushing states to adopt policies that are optimally supportive of effective college practices. To that end we offer three specific policy recommendations that stem directly from our data analysis. We believe these changes will support community college efforts to increase college completion and close the intolerable gaps across racial/ethnic populations. Our last policy recommendation addresses the broad policy environment for all of California higher education.

2 A new funding model should be adopted that rewards colleges for helping student progress through milestones, including completing college-level English and math, and for helping under-prepared students meet key milestones.

Our analysis revealed serious shortcomings in the extent to which students are moving through key milestones on their way to earning certificates or degrees or transferring to universities. The concept of milestones, or intermediate measures of student progress, is growing in popularity as states become convinced that funding based solely on enrollment is not providing the right incentive for improving student progress and success. Several states have adopted this approach and more are

considering it. The milestones approach has great potential to overcome the shortcomings of earlier generations of performance funding in higher education, which put too much emphasis on graduation rates, failed to reward institutions for student progression, and were not based on the rich data that can come from cohort analysis of milestone attainment. In view of findings from our cohort analysis, we recommend that the new funding model include financial incentives for getting students to complete key milestones and that it contain extra incentives for milestone attainment by under-prepared students, to help close the gaps and not disadvantage colleges that serve more under-prepared students.

3 The Board of Governors should adopt changes to system policy, and seek statutory change as necessary, to ensure that all degree-seeking students are assessed for college readiness, and are directed appropriately into courses that will expedite their transition to and success in college-level instruction.

Community colleges across the nation are devising strategies to best help students who arrive under-prepared for college-level instruction. California lags other states in adopting reforms that would require students to be assessed. This has serious ramifications for the kind of data analysis we recommend. Without complete data on who is and who is not prepared for college-level study, colleges cannot carefully study outcomes for under-prepared students or monitor the impact of various instructional and support strategies. Further, other states are leading the way in reforming delivery systems for remedial education aimed at minimizing the time students spend in drawn-out remedial sequences while carefully controlling student access to college-level courses to ensure that students have the skills to read and write at college level before taking courses that require those skills. Some policy reforms to address this set of issues are being considered by the CCC but immediate action is warranted to help under-prepared students progress and succeed.

4 The Legislature should take steps to guard against erosion of the historic transfer function of community colleges by investigating recruiting practices and completion rates at for-profit colleges, enacting policies that encourage students to earn associate degrees prior to transfer, and ensuring sufficient capacity at UC and CSU for transfer students.

Recommendations: Using Data to Improve Institutional Practice and State/System Policy

Our analysis showed that large numbers of community college students are transferring with few units completed and in growing numbers to for-profit institutions, whose recruitment practices nationally are under investigation, and whose completion rates are feared to be exceedingly low. These institutions are recruiting heavily among Latino and black students whose success is so critical to California's future. The Legislature should call for transparency in the practices and outcomes of for-profit colleges perhaps by means of imposing conditions for institutional eligibility to participate in Cal Grant programs. Additionally, ongoing efforts in the Legislature to improve transfer pathways for students should incorporate incentives for students to complete a transfer curriculum and earn an associate degree while at community college.

5 California needs a public agenda for higher education

A policy framework is needed that sets goals across all three segments (UC, CSU, and CCC) for college participation and degree completion, identifies the policies and investments needed to accomplish those goals, and monitors progress toward achieving the goals (including goals and progress related to closing achievement gaps). We have recommended this previously, as has the Legislative Analyst's Office. The states that are leading the way with new approaches to increase completion, and attracting foundation money in the process, are doing so under the guidance of such a strategic document. California's approach to higher education is far too fragmented and un-strategic for the state to be considered at the forefront of national college completion efforts.

Recommendations to Link Practice and Policy

Advocates and stakeholders regularly promote policy agendas in the interest of improving student success. We hope that the completion rates and disparities documented in this report will spur more active policy agendas by stakeholders committed to increasing college completion and reducing performance gaps. If stakeholder agendas can reflect real and current trends in the colleges and can be aligned with the colleges' own agendas, the chances of achieving effective policy reform are higher. To that end, we call attention to two mechanisms, highlighted in the diagram on p. ii, for bringing internal and external stakeholders together in the pursuit of student success.

6 Colleges should publicly report milestone data

Milestone attainment, by race/ethnicity, should become a feature of the extensive CCC public accountability system, called Accountability Reporting for Community Colleges (ARCC). This would inform state and local stakeholder groups, as well as policymakers, of the performance of colleges in helping students make progress and complete academic programs, and could help focus policy agendas on those areas of greatest systemwide challenge.

7 Colleges should identify common policy barriers

When colleges come together to share effective practices, as we recommend they do, they should identify system and state policies that are impeding their best efforts to help students succeed. For example, a college may want to assess students a small fee for excessive course dropping or late registration - two patterns shown to reduce the likelihood of success - but are prevented from doing so by statute. Or a college may want to implement an intensive student support program but may be prevented from doing so by the "fifty percent law" that caps expenditures on student support services. If, through these data-intensive efforts, faculty and staff come to see first hand that policy can enhance the good work they are doing to help students succeed, California stands a better chance of joining leading states in implementing the kinds of innovative policy reforms that can raise college completion.

We count ourselves among the many who believe that community colleges are inadequately funded for the diverse and vital missions they are expected to fulfill. But we also believe it is important, *and possible*, to achieve better outcomes from the resources that are available. Better use of data to inform changes in practice and policy across the community college system can help prevent serious erosion in education levels and the resulting adverse impact on the workforce, the tax base, and the quality of life in California. It carries a price tag but not a prohibitive one. Current fiscal problems and inadequate preparation of incoming college students are huge challenges but should not stall efforts to address the significant problems at hand. Community college students are California's future workforce and we must prepare them or face an unenviable future. The colleges are committed to increasing student success but their efforts will be more effective if guided by the systematic data-driven decision making that we have outlined in this report. Such a culture of continuous improvement can spur changes to practices and policies that, in combination, can increase college completion and brighten future prospects for California.

Notes

- ¹ Johnson, H. & Sengupta, R. (2009). *Closing the Gap: Meeting California's Need for College Graduates*. San Francisco: Public Policy Institute of California.
- ² The Workforce Alliance (2009). *California's Forgotten Middle-Skill Jobs: Meeting the Demands of a 21st Century Economy*. Washington, D.C.: Author.
- ³ Offenstien, J. & Shulock, N. (2009). *Technical Difficulties: Meeting California's Workforce Needs in Science, Technology, Engineering, and Math (STEM) Fields*. Sacramento, CA: Institute for Higher Education Leadership & Policy.
- ⁴ Hargreaves, R., Cherner, D., O'Neil, E., Solomon, K., & Semerdjian, J. (2007). *Closing the Health Workforce Gap in California: The Education Imperative*. San Francisco: Health Workforce Solutions.
- ⁵ While it is common to refer to the gap between projections of job openings and availability of qualified workers as "shortages," actual "shortages" will not exist. If the state fails to produce a workforce with the qualifications to fill the kinds of jobs that the state is otherwise on track to produce, employers will create those jobs in other states or countries that have a more educated workforce. In another recent report, PPIC concluded that California will not be able to import enough qualified workers to compensate for under-production of college graduates, due to the increasing competition for those workers in other states and countries (Reed, D. [2008]. *California's Future Workforce: Will there be Enough College Graduates?* San Francisco: Public Policy Institute of California).
- ⁶ Bowen, W.G., Chingos, M.M., & McPherson, M.S. (2009). *Getting to the Finish Line: Completing College at American's Public Universities*. Princeton, NJ: Princeton University Press.
- ⁷ Carnoy, M. (2010). *California's Impending College Graduate Crisis and What Needs to Be Done About It*. Stanford, CA: PACE.
- ⁸ California Department of Finance (2007, July). *Race/Ethnic Population with Age and Sex Detail, 2000-2050*. Sacramento, CA: Author.
- ⁹ Calculated using data from the American Community Survey, 2006-2008 3-year estimates.
- ¹⁰ For more information on the effort and the states involved, see <http://www.completecollege.org>.
- ¹¹ The California State University is a participant. For more information see <http://www.edtrust.org/issues/higher-education/access-to-success>.
- ¹² Moore, C. & Shulock, N. (2009). *The Grades are In – 2008*. Sacramento, CA: Institute for Higher Education Leadership & Policy.
- ¹³ Kurlaender, M. (2006). Choosing community college: Factors affecting Latino college choice. *New Directions for Community Colleges*, 133, 7-16.
- ¹⁴ Cohort data tracking identifies a group of students who enroll or begin a program at the same time and tracks their progress over time. This is distinct from, and preferable to, tracking annual outcomes for students who are at different stages of their academic careers because it facilitates analysis of the impact of different programs, interventions, and policies.
- ¹⁵ Offenstien, J., Moore, C., & Shulock, N. (2010). *Advancing by Degrees: A Framework for Increasing College Completion*. Sacramento, CA: Institute for Higher Education Leadership & Policy; Moore, C., Shulock, N., & Offenstien, J. (2009). *Steps to Success: Analyzing Milestone Achievement to Improve Community College Student Outcomes*. Sacramento, CA: Institute for Higher Education Leadership & Policy.
- ¹⁶ Adelman, C. *Proposed amendment for the Student-Right-to-Know and Campus Security Act of 1990 (P.L. 101-542) to produce a full and honest account of college completion rates*. Obtained through personal communication on June 2, 2008.
- ¹⁷ Second term retention was measured fall-to-spring for students beginning in Fall 2003 and spring-to-fall for students beginning in Spring 2004. Likewise, one-year retention was measured either fall-to-fall or spring-to-spring depending on the student's initial term.
- ¹⁸ Horn, L. & Lew, S. (2007). *California Community College Transfer Rates: Who is Counted Makes a Difference*. Berkeley, CA: MPR Associates, Inc.
- ¹⁹ Most community colleges use the semester calendar. For the few using a quarter calendar, we converted quarter credits to semester credits before calculating any milestones involving credit counts.
- ²⁰ For example, see Marcotte, D.E. (2006). *The Earnings Effect of Education for Community Colleges*. Baltimore, MD: University of Maryland.
- ²¹ Completing a transfer curriculum was defined as 60 transferable credits, including at least one course in math and one in English. This measure is only a proxy for completing a transfer curriculum, and is likely an overestimate. To be fully eligible for transfer to a public university at the upper division level, students must complete a set of general education courses and lower-division prerequisite courses required for admission to a particular program. The variation in curricula across the community colleges, the lack of common course numbering, and the variation in courses required for admission across the universities makes it impossible to measure the percent of students who actually completed a full transfer curriculum.
- ²² Students can be double-counted in the certificate, degree and transfer measures. For example, a student may have completed both a degree and transferred.
- ²³ According to data from the California Postsecondary Education Commission, in fall 2008 only 3.4% of transfers from CCC to UC and 5.8% of transfers from CCC to CSU were freshmen or sophomores.
- ²⁴ In the National Student Clearinghouse, some of the for-profit institutions use one central location to indicate a student enrolled in one of its institutions, making it difficult to determine the location of the specific campus that a student attended. As a consequence, we show all transfers to the for-profit sector combined, without distinguishing between in-state and out-of-state, but it's likely that most of those students enrolled in for-profit colleges within California.
- ²⁵ Data provided by the MIS unit of the CCC Chancellor's Office.
- ²⁶ In 2008-09, nearly 20,000 students in the for-profit sector received Cal Grant awards, accounting for 7% of all recipients (California Student Aid Commission [2009]. *2008-09 Cal-Grant Program Recipients*. Sacramento, CA: Author). Sixty percent of new awards under the Competitive Cal Grant A program went to students in for-profit colleges (California Student Aid Commission [2009]. *Facts at Your Fingertips 2008-09: Cal Grant Competitive Program*. Sacramento, CA: Author).
- ²⁷ For example, the national graduation rate of University of Phoenix is widely reported at 16%, based on the six-year rate as defined by the federal government for first-time, full-time freshmen (<http://www.nytimes.com/2007/02/11/education/11phoenix.html>). The California Postsecondary Education Commission shows that rate for University of Phoenix campuses in this state as less than 5% (<http://www.cpec.ca.gov/StudentData/GradRatesDetail.asp?ID=G0021A&Year=2001>). Even the institution's own

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method of calculating a six-year graduation rate for students seeking a bachelor's degree results in a rate of 36%, with no information provided about how that rate is calculated (University of Phoenix [2009]. *2009 Annual Academic Report*. Phoenix, AZ: Author).

²⁸ For example, see recent articles on Congressmembers' concerns and their direction to the Government Accountability Office (GAO) to conduct a review of the for-profit higher education sector at http://chronicle.com/article/New-Grilling-of-For-Profits/66020/?sid=at&utm_source=at&utm_medium=en and <http://www.insidehighered.com/news/2010/06/24/forprofit>.

²⁹ Adelman, C. (2005). *Moving Into Town and Moving On – the Community College in the Lives of Traditional-Age Students*. Washington, DC: National Center for Education Statistics.

³⁰ UCLA Institute for Democracy, Education, and Access and University of California All Campus Consortium on Research for Diversity (2007). *California Educational Opportunity Report 2007*. Los Angeles, CA: Author.

³¹ See, for example, California Community Colleges Chancellor's Office (2003). *The Real Cost Project Preliminary Report*. Sacramento, CA: Author.

³² While most colleges now receive equal funding per student as a result of recent legislation, there are 3 districts that receive somewhat lower funding ("basic aid" districts) and 7 others that receive somewhat more than the standard \$4,565 per FTES.

³³ Size and demographic composition are only two characteristics on which to base "similarity" across colleges, and there are other ways these colleges could be different from each other (e.g., while academic preparation and socioeconomic status are strongly related to race/ethnicity, the income or level of preparation of students could still vary across colleges with similar racial/ethnic composition). To identify truly "high-performing" colleges in terms of the success rates of URM students, other factors would have to be considered, something that is best done by the CCC system as part of efforts to identify and share effective practices.

³⁴ Outcomes of students attending more than one CCC were attributed to the college where they initially enrolled.

³⁵ Moore, C. & Shulock, N. (2009). *Student Progress toward Degree Completion: Lessons from the Research Literature*. Sacramento, CA: Institute for Higher Education Leadership & Policy.



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