

THE REAL COST OF COLLEGE

Time & Credits to Degree at California Community Colleges

TO DO:

fill out FAFSA
pay fees
buy books
buy food
pay rent
get bus pass

FEES	\$\$
BOOKS	\$\$
SUBTOTAL	\$\$\$
EXCESS UNITS	\$\$\$\$
LOST WAGES	\$\$\$\$\$
REAL COST	\$\$\$\$\$



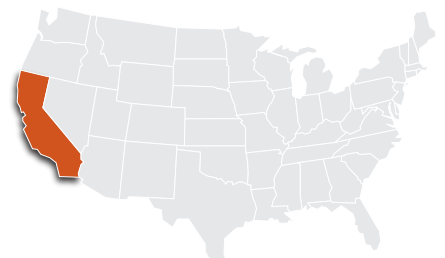
CA COMMUNITY
COLLEGES

The Campaign for

College
Opportunity

JULY 2014

The State of
Higher Education
in California



THE REAL COST OF COLLEGE

Time & Credits to Degree at California Community Colleges

A “two-year” community college degree is becoming increasingly rare. The time it takes most students to attain an associate degree, and the number of credits most students take on their way to a degree, are growing well beyond the traditional benchmarks and are creating expensive consequences.

Taking extra time and credits to earn a degree is costly and makes college less affordable. The longer students are enrolled in college, the more they will pay for fees, living expenses, books, and other education-related expenses. Students also forgo potential wages they could have been earning because they are in school and not in the workforce. And, for students who work, they miss out on the higher earning potential that a college credential provides.

These related trends of extending the time for completion of a degree and excess number of credits being earned or attempted, are also leading to higher costs for the California Community College (CCC) system and the state. They impact all students at a time when every seat is in high demand, and may contribute to low community college graduation rates. It impacts the state economy at a time when more college graduates are needed to meet workforce demand.¹

Traditionally, students seeking associate degrees spent two years in the classroom and earned 60 credits. But, students who attend California’s community colleges today are taking an extended amount of time to complete their degrees and graduating with more than the required number of credits.

California community college students who earned one associate degree only in the 2012-13 academic year took a median of 4.1 years to do so and graduated with 78 credits—much more than the two years (for full-time students) and 60 credits the degree was originally designed to take.²

The California Community Colleges (CCC) make up the largest system of higher education in the world. Consisting of 112 campuses divided into 72 districts across California, the CCC serves 2.4 million students. The CCCs are open-access institutions, meaning all applicants are eligible and accepted.

Students, colleges, and the state pay a high price for the excess time and credits to degree completion. Longer-than-intended student attendance creates a real cost to taxpayers. There is also the cost of lost capacity—when students are enrolled for longer periods of time, there is less space at the colleges for new students, thus accelerating the trend of extending the time it takes most students to earn a degree.

The Real Cost of College: Time & Credits to Degree is the second installment in a two-part series tackling issues of college affordability in California.³ This report examines the real cost of earning a degree at California Community Colleges, beyond fees, when excess time and credits are factored in.

WHAT YOU NEED TO KNOW WHEN READING THIS REPORT

This report looks only at students who actually *completed* their associate degrees from the California Community College system in 2012-13. Among the 63,750 students who received one associate degree only from the CCC in 2012-13, *half* of them spent longer than 4.1 years and accumulated more than 78 credits on their path to a degree. This report *does not* examine time and credits to degree by program of study or track students who transfer to a four-year university.

This report evaluates original data on time and credits to degree by various student characteristics. Then, it explores possible contributors to extended time and credits to degree.⁴ Finally, the report outlines why this troubling phenomenon is so important and provides recommendations for policies and actions that will enable colleges to offer students an education more efficiently and cost-effectively.

How Long and How Many Credits Does it Take to Complete a Degree at California's Community Colleges?

Analyzing time and credits to degree at community colleges is a complex issue because students attend community colleges for a variety of reasons: students may enroll with the goal of earning an associate degree, transferring to a four-year university, earning a certificate, taking a few classes to gain additional career-related skills, enroll while concurrently attending high school, or simply for personal enrichment.⁵

Data from a national survey of more than 90,000 incoming community college students finds that 79 percent aim to earn an associate degree and 75 percent plan to eventually transfer to a four-year university.⁶ Research has shown that attaining an associate degree prior to transferring to a four-year university has economic benefits⁷ and increases the likelihood of obtaining a bachelor's degree.⁸ This makes earning an associate degree in a timely fashion all the more important.

According to the Student Success Scorecard developed by the California Community Colleges Chancellor's Office, less than half of community college students complete a degree, certificate, or transfer within six years. And this percentage has been declining over the past five years.⁹

By any measure, this completion rate is unacceptable but when coupled with the fact that most students who do earn a degree are taking at least twice as long to complete, this phenomenon spells trouble for the state as it struggles to meet the demands of an economy which requires some form of college credential: certificate, associate, or baccalaureate degree. For community college students who want an associate degree or want to increase their chances of successfully earning a baccalaureate degree, timely and cost-efficient degree attainment is critical—especially because the probability of graduating decreases for each additional year a student is enrolled.¹⁰

This section looks at the median number of years and number of credits both *attempted* and *earned* for students who earned one associate degree only from the California Community College system in 2012-13.

Time and Credits to Earn an Associate Degree

According to the United States Department of Education and the Western Association of Schools and Colleges (the accreditation agency for California public colleges and universities), an associate degree requires 60 semester credit hours (90 quarter hours) to complete, although specific requirements (degree credits versus general education and elective credits) vary by program. **In order to complete an associate degree in two years, students must average 15 credits a term.** This is normally the equivalent of four or five courses per semester.

California Community College (CCC) students who earned an associate degree only in 2012-13 took a median of four years to complete their degrees, which is twice as long as a full-time student is expected to take.¹¹ Since approximately 90 percent of California's community college students take fewer than 15 credits per semester,¹² it is not surprising that students take longer than two years to complete an associate degree.

A source of concern is that these associate degree earners *attempted* a median of 90 credits (this number includes credits that students did not earn because they failed, dropped, or withdrew from the course) while successfully completing 78 (18 more credits than the 60 required for an associate degree). That means that more than half of associate degree completers had accumulated *more* than 78 credits upon graduation and *attempted* approximately 90 credits to get that degree. Essentially, students are taking an extra full-time academic calendar year worth of credits (30 credits) over the required 60 and are not completing almost a full-time semester worth of classes (12 credits).

The following section examines the median number of years and credits to degree for associate degree completers by various student characteristics: enrollment in pre-college level courses, race/ethnicity, and socio-economic status (using financial aid as a proxy). It is important to clarify that though student characteristics, such as race/ethnicity or socio-economic status, might be *correlated* with extended time and credits to degree, they do not necessarily *cause* extended time and credits to degree. The identification of these characteristics is simply for the purpose of understanding issues that may require further investigation as to *what* causes extended time and credits to degree for these individuals.

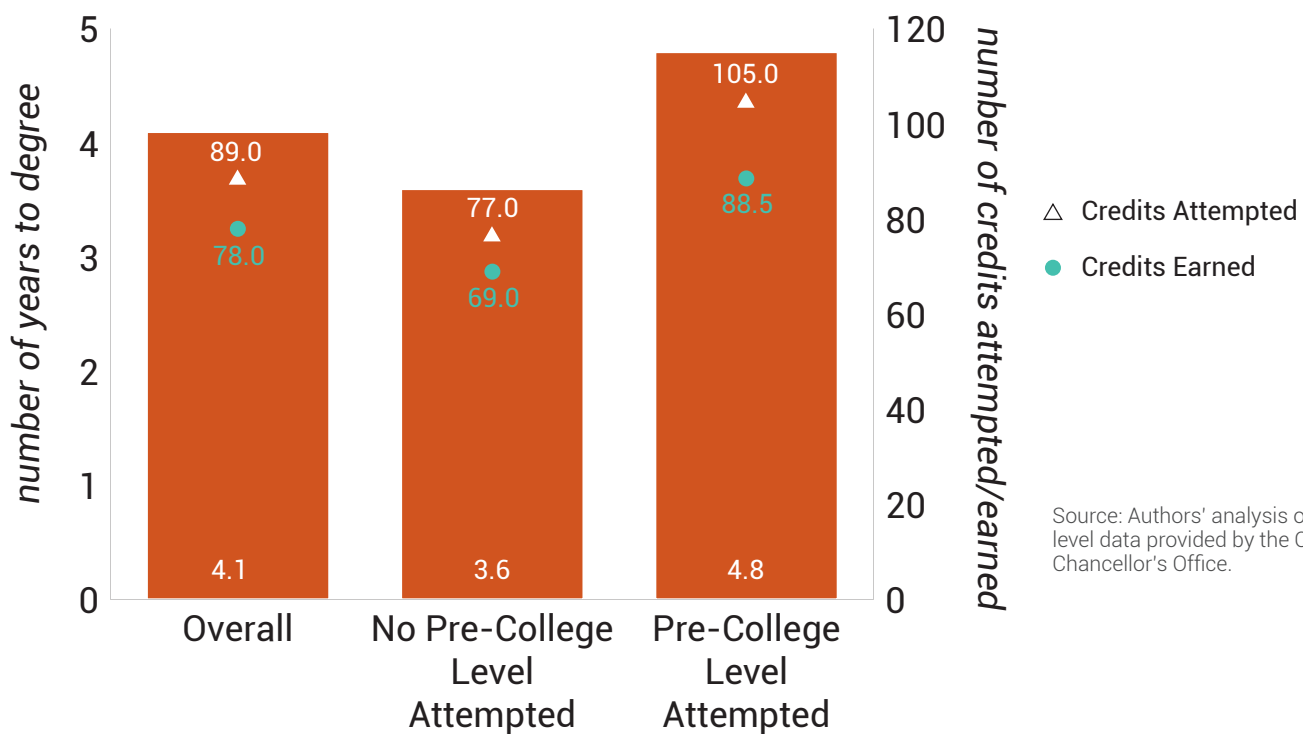
Pre-College Level Courses

Pre-college level courses (also known as basic skills, remedial, or developmental education) are courses students take after completing a skills assessment test that places them **below college-level English or math**. Most campuses do not offer preparation for these tests or allow students to retake them—and, the tests vary by campus.¹³ Many students are not aware of the importance of these tests or the impact that they have on their college careers.¹⁴ For example, depending on the campus, students can be placed one-, two-, three-, or even four-levels below college level. Students are required to take these courses, sequentially, before they can begin college-level coursework in that subject.

Not surprisingly, enrollment in pre-college level courses extends time and credits to degree significantly. Students who enrolled in pre-college level courses took more than one year longer and 20 more credits to complete their degrees than those who enrolled directly into college-level courses (Figure 1). While pre-college level credits are included in this analysis of credits attempted and completed, these credits are not applicable toward degree requirements. Students who immediately enrolled in college-level coursework exceeded the credit minimum (60) for an associate degree by about nine credits. These same students attempted but did not complete eight credits, while students who enrolled in pre-college level courses attempted 16 credits that they did not complete.

Figure 1: Enrollment in pre-college level courses extends time and credits to degree by over a year and 20 additional credits.

Median Years, Credits Attempted, & Credits Earned to Degree, Associate Degree Earners, 2012-13



Source: Authors' analysis of student-level data provided by the CCC Chancellor's Office.

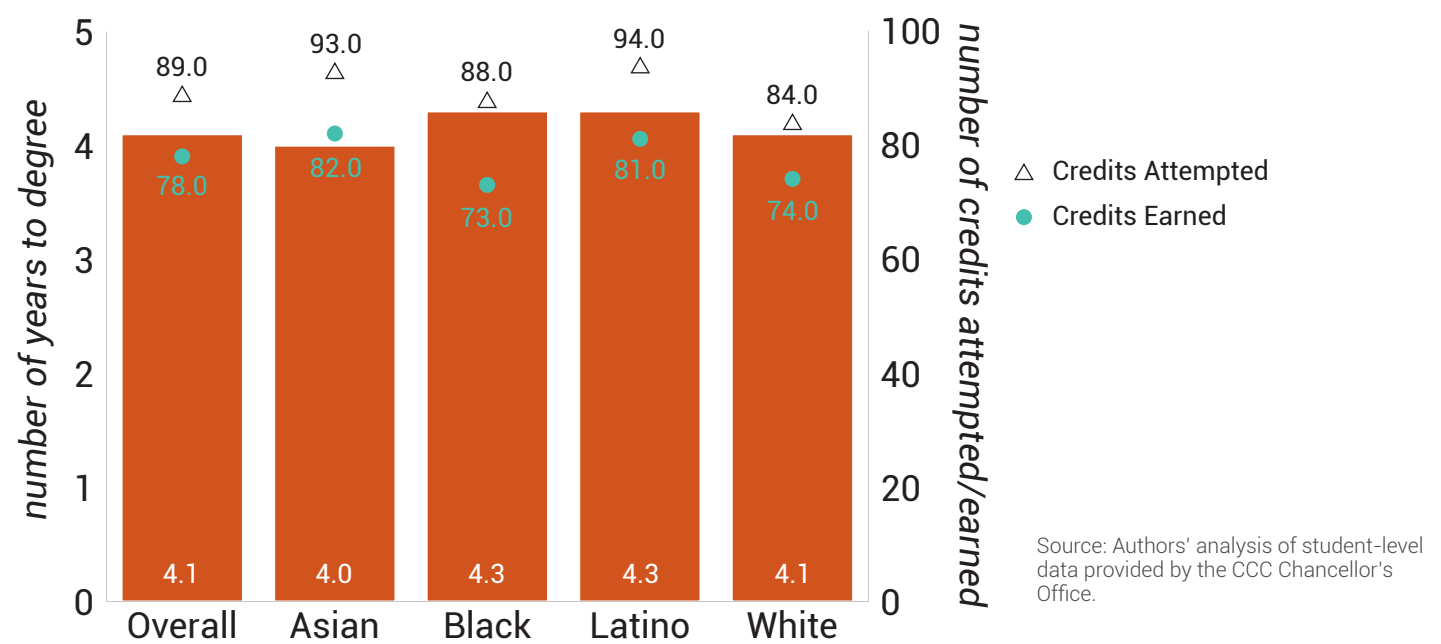
Demographics

The time and credits it takes to earn an associate degree *can* vary across demographic characteristics such as gender, race/ethnicity, socio-economic status and age, but existing national research on time to degree suggests that gender and race/ethnicity are not significant predictors of time to degree.¹⁵ Instead, factors such as socio-economic status and age have been more closely related to longer time and more credits to degree.¹⁶ The data provided by the CCC allow us to investigate time and credits to degree by gender, race/ethnicity and socio-economic status (by using financial aid status as a proxy)—not age.¹⁷

The data shows slight differences in median *time* to degree across racial/ethnic groups. However, there are more noticeable differences across racial/ethnic groups when looking at median *credits attempted and earned* (Figure 2). Asian students take less time to earn their degrees (4 years) and earn the most credits (82 credits). Conversely, Black students take longer (4.3 years) and earn fewer credits (73 credits). Black students also had the highest median credits attempted but not earned (15 credits)—the equivalent of five 3-credit courses. Latinos take about the same time as Black students, but Latinos attempt and earn a greater number of credits than their Black counterparts.

Figure 2: Students across all racial/ethnic groups attempt about 12 credits more than they complete.

Median Years, Credits Attempted, & Credits Earned to Degree, Associate Degree Earners, 2012-13



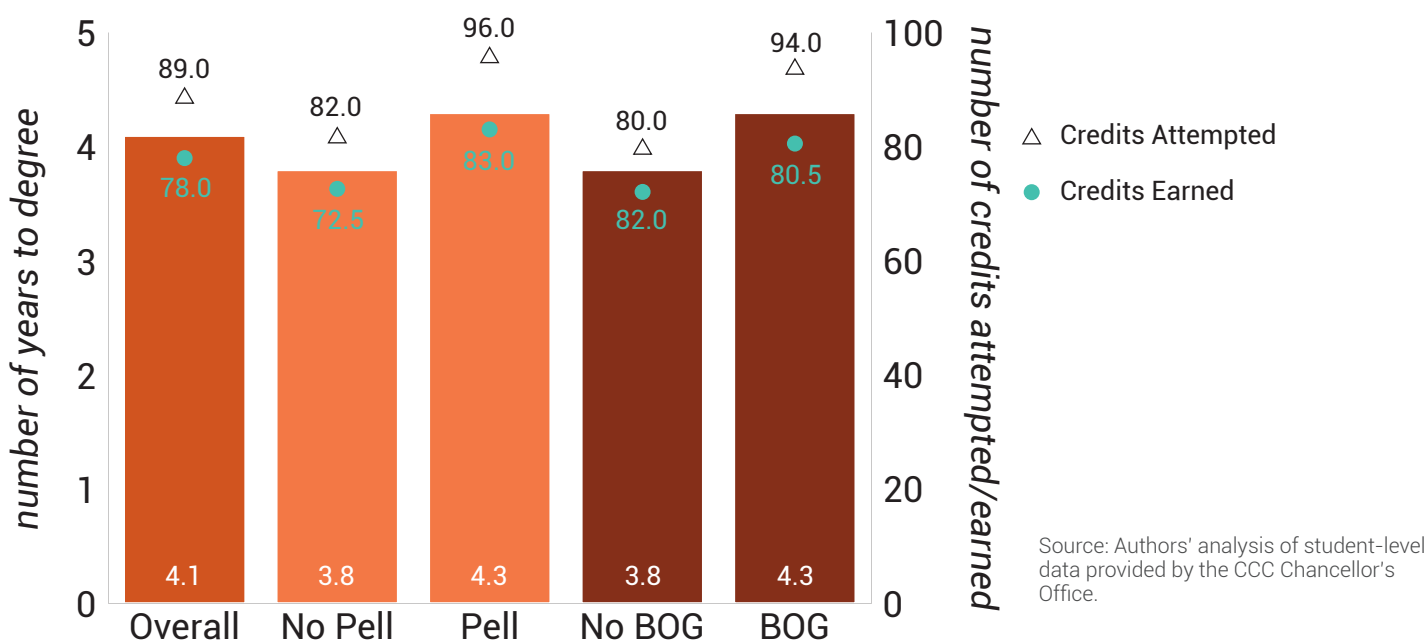
Differences by socio-economic status (using financial aid status as a proxy) are more pronounced than differences measured by race/ethnicity. Of the 2012-13 associate degree earners, more than 45 percent received a Pell Grant and more than 60 percent received a Board of Governors (BOG) Fee Waiver, and therefore can be classified as low-income.¹⁸ Recipients of the Pell Grant and Board of Governors Fee Waiver tended to both attempt and earn substantially more credits than non-recipients and take about half a year longer to complete their degrees (Figure 3).

Low-income students face a number of challenges that make successful and *timely* degree completion difficult. This is in part due to the fact that low-income students are:

1. More likely to come from high schools with poor records of providing students with effective college preparation;
2. Placed overwhelmingly in pre-college level courses by colleges and universities; and
3. More likely to be classified as financially independent and have obligations outside of school, such as work and family.

Figure 3: Low-income students tend to attempt and earn more credits than those who do not receive aid.

Median Years, Credits Attempted, & Credits Earned to Degree, Associate Degree Earners, 2012-13



Socio-economic status tends to correlate with college readiness. On average, low-income students tend to have significantly lower levels of academic preparation. This is partly due to the significant inequities in access to quality K-12 education.¹⁹ For example, low-income and underrepresented minority students are likely to attend high schools that do not offer critical college preparatory courses such as calculus or even algebra II and chemistry.²⁰ They are also more likely to be taught by teachers with less experience, both in terms of years in the classroom and in the subject matter they teach.²¹

Partly as a result of these lower levels of academic preparation, low-income students are overwhelmingly placed into pre-college level courses when they attend college.²² Nationally, more than two-thirds of low-income students at two-year schools are placed into pre-college level courses, compared with about half of overall students.²³ This link between socioeconomic status, college preparation and likelihood of needing pre-college courses could help explain why low-income students are taking longer and attempting and earning more credits than those who do not receive aid.

Low-income students are also more likely than their more affluent peers to be classified as financially independent and work a greater number of hours.²⁴ When students spend time at work they have less time to study or take additional courses. Research shows that working more than 20 hours a week, commonplace for low-income community college students, results in lower levels of academic success.²⁵

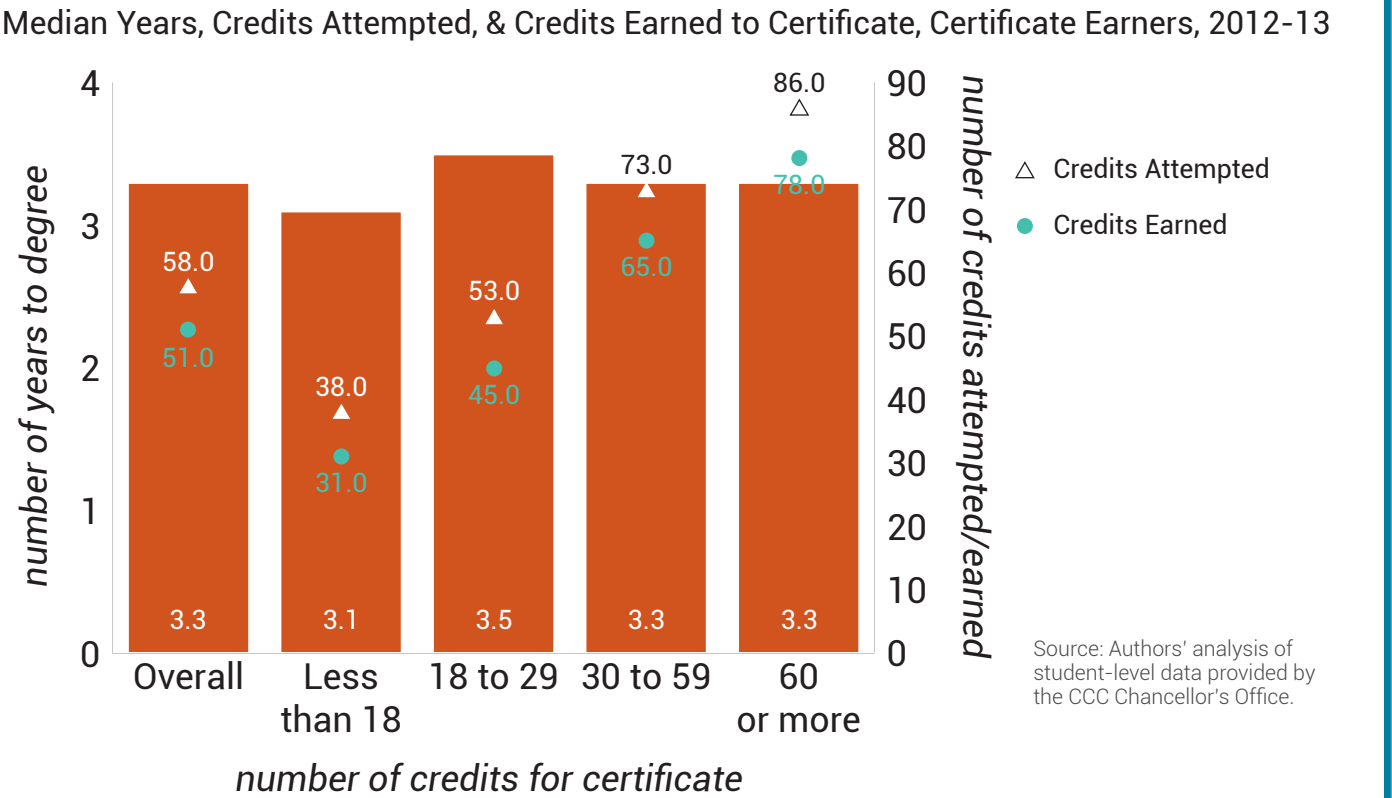
While it is well documented that low-income students tend to face greater obstacles to their academic success than their more affluent counterparts, promising research has shown that low-income students who have access to federal, state, and institutional grant aid are more likely to persist in their studies and ultimately complete college compared to low-income students who do not receive such aid.²⁶

Certificates

While associate degree earners are the focus of this report, some students attend community colleges to earn a certificate. Certificates are awards that tend to focus on occupational skills, but also can be earned in almost any field of study, generally require fewer credits than an associate degree, and are becoming increasingly popular and important to our workforce.²⁷ Students who attend community colleges may earn a certificate in isolation or in addition to an associate degree or multiple certificates at a time.

About one-third of community college students who received a completion award (degree or certificate) in 2012-13 earned a certificate only and not an associate degree. Among those, 96 percent earned one certificate only. Figure 4 below shows the median time and credits for those who earned only a certificate by the number of credits required for each certificate. Overall, students are earning more than 20 credits in excess of the requirements for their certificate. Across all certificate types, students are attempting about 11 more credits than they earn. Nationally, community colleges award about half of all certificates and 95 percent are designed to take less than two years²⁸ but California community college students are taking a median of 3.25 years.

Figure 4: Certificate earners accumulated substantially more credits than required.



What Might Cause Extended Time and Credits to Degree at California Community Colleges?

Many interrelated factors contribute to students taking more time and accumulating more credits than required to complete their degrees.

Capacity. California Community Colleges (CCC) are operating at financial and physical capacity. This is true at the campus, program and course level. This is partly a budgetary issue: state funding was cut by almost \$1.5 billion between 2007–08 and 2011–12.²⁹ In the fall of 2013, an average of 5,026 students per community college were waitlisted for classes.³⁰ Approximately 21 percent of course sections were eliminated between 2007–08 and 2011–12.³¹ The problem was worse among high-demand and specialized programs like nursing and other health-related fields. At the same time, during the Great Recession, there was increased demand for classes by adults who needed re-training.

As students are unable to register for courses that are full, they may take fewer courses than they need or take a break from enrolling for a semester, also known as “stopping out.”³³ Consequently, they experience extended time or credits to degree. Further exacerbating problems in access, because courses, programs and campuses are at capacity, colleges are prevented from enrolling new or more students.³⁴

Course offerings that do not align with demand. One of the side-effects of diminished capacity is that course offerings do not adequately meet student demand.³⁵ If students are unable to get the courses they need, such as pre-requisite, core introduction, or degree-applicable classes, they will take longer to earn their degrees. Additionally, they may take courses not applicable to their degrees in order to maintain financial aid eligibility (see *Financial aid policies* below) or because of inadequate advising, leading to excess credits.³⁶

Pre-college level coursework. Enrollment in math and English pre-college level courses substantially extends the time and number of credits to earn an associate degree. Credits earned in pre-college level coursework are not counted toward a degree, but do extend the time students are in college as they are unable to enroll in degree-applicable courses before the pre-college level coursework is complete. The addition of pre-college coursework affects an overwhelming number of students: 74 percent of students who entered California’s community colleges in 2007–08 were enrolled in at least one pre-college level course. That accounts for 144,500 students, enough to fill the Los Angeles Memorial Coliseum, the largest stadium in California, more than one and a half times.³⁷ Students who enroll in pre-college level courses are significantly less likely to persist and complete their degrees.³⁸ The CCC Student Success Scorecard shows that 71 percent of students who enrolled immediately in college-level courses finished a degree, certificate or transferred within six years compared to only 41 percent of students who enrolled in pre-college level courses.³⁹

Unclear pathways. Quality advising is vital to student success.⁴⁰ Attaining a college degree can be complicated and many students require guidance navigating the process. Students may need assistance with determining a major and clear degree plan, understanding the number of required courses and credits needed per semester to graduate in a timely manner, and managing academic calendars to know when to drop or withdraw from a course (and the consequences of each) to successfully complete their degrees.⁴¹ The median student-counselor ratio at CCC is 756 to 1,⁴² significantly above the recommended ratio of 370 to 1.⁴³ This limited counseling can leave students feeling confused and without a clear pathway to degree.

“If people were able to finance their education and focus on that primarily, they would get out of there much faster. Very few students who go part-time cut it.”

Source: Campaign for College Opportunity. (2012). *Challenged from the Start: Stories of Student Perseverance & Determination in California's Community Colleges*. Page 32.

Obligations outside of school. Community college students today are more likely to be older, employed full-time, first-generation college-going, require developmental education, be low-income, have families, and be independent.⁴⁴ Therefore, students may spend less time on campus attending classes and studying and more time working, supporting themselves, and caring for their families. As a result, students may take fewer classes per semester, take a break from their studies and consequently, are less likely to graduate and take longer to complete their degrees if they do graduate.⁴⁵

Financial aid policies. California Community College (CCC) students who receive the Board of Governor’s fee waiver would receive waived fees for either 12 credits or 15 credits per semester. This aid, however, does not cover other indirect costs such as books, supplies, transportation and time away from work—all of which can increase when students take 15 credits

instead of 12. Thus, low-income students who are trying to keep these other costs down, or are unaware that they need to take 15 credits per semester to graduate in two years, may take 12 credits or fewer, which puts them on at least a three-year rather than a two-year track to earn a degree.

Additionally, many low-income students who qualify for federal financial aid do not actually apply. A major obstacle in student access to financial aid is completion of the Free Application for Federal Student Aid (FAFSA), a requirement to receive a Pell Grant and other types of aid, including Cal Grants.⁴⁶ Many low-income students lack the knowledge to navigate the financial aid process or are discouraged by the convoluted process and as a result, do not apply.⁴⁷ The Institute for College Access and Success found that only 33 percent of CCC students complete the FAFSA compared to 46 percent of community college students in other states. In fact, in 2007–08 about half a million CCC students eligible to receive federal and institutional grant aid did not apply thereby leaving potentially almost \$500 million on the table in Pell grants alone.⁴⁸

Credits attempted but not earned. California Community College students attempt a median of 12 credits that they do not earn. Due to the unavailability of public data, it is difficult to determine which courses students are attempting but not completing (i.e. pre-college level, degree-requirement, elective, etc.) and the reasons why. What is known, however, is that these courses that are attempted but not completed cost students, the college, and the state money and extend time to degree for students.

Enrollment intensity. The number of credits a student enrolls in has a direct influence on the time it will take to complete his or her degree. If a student enrolls in and/or completes fewer than 15 credits per term (all of which must be applicable toward the degree) or takes time off, then he or she will take longer than the expected two years to earn an associate degree that requires 60 credits. Only about 10 percent of CCC students take 15 or more credits a semester. While not all of them wish to earn an associate degree, many do and a host of previously discussed factors contribute to less than full-time enrollment such as the need to work, lack of sufficient financial aid, and lack of quality academic advising.⁴⁹

Why are Excess Time and Credits to Degree a Problem?

Time is money. The longer students take to earn their degree, the more it costs them and their families, colleges and the state. Students who extend their time and credits to degree not only incur costs from additional credits but also miss out on higher earnings by delaying entry into the workforce. This delay potentially means the state forgoes increased tax revenue from their higher earnings and fewer students can be served because of limited capacity within the system.

Higher Costs to Students

For college students, especially those with limited financial resources, time is money. Not only do students pay fees and purchase textbooks, but they also give up the opportunity to earn wages while they are taking classes and studying. Even more pressing, Pell and Cal Grant eligibility is time-bound: students are only awarded Pell Grants for the full-time equivalent of twelve semesters or six years⁵⁰ and Cal Grants for eight semesters or four years.⁵¹

Fees may be the least of the cost barriers to a degree. Fees at each California Community College (CCC) campus are currently \$46 per credit. A full course load (15 credits in a semester) would cost a student who did not receive any kind of financial aid \$1,380 per year. Since fees are charged by the credit, students would theoretically pay the same amount toward a degree regardless of the length of time over which those credits were distributed. But students are attempting many more credits than they complete. And fee expenses are only about nine percent of the total price of education at the CCC.⁵² The other portion consists of items such as room and board, food, transportation, books, supplies and miscellaneous personal expenses.

At California's community colleges, which have the lowest fees in the nation, **living expenses make up the largest portion of students' budgets and as a result, the total cost of attending a community college in California exceeds that of most other states.**⁵³ So while \$46 per credit is affordable, particularly given that nearly half of all CCC students pay no fees,⁵⁴ indirect expenses over extended amounts of time actually compounds the cost significantly.

The other cost to students of extended time spent in higher education is foregone wages—wages students do not earn while they are attending school instead. Included in foregone wages is the wage benefit or premium—additional income students forego because they have yet to earn a college degree. This adds up. National research shows that a worker with some college and no degree earns about \$200,000 more over time than someone with a high school diploma only, and associate

degree holders earn \$400,000 more.⁵⁵ This same report finds that a bachelor’s degree holder can expect to earn \$1 million more over a lifetime compared to someone with a high school diploma only.

An example of the cost of extended time to degree at the Los Angeles area community colleges for a student whose family income is between \$48,000 and \$75,000 (the middle-income level) is provided in Table 1.⁵⁶ Every additional year the student is enrolled in college will increase the total cost to that student by about \$7,600 in fees, books, and living expenses and cost him more than \$15,000 in lost wages over a lifetime. Even if a student is not enrolled for the entire time it takes to earn an associate degree, he will still pay in terms of lost wages. For example, a student who takes four years to earn an associate degree can spend as much as \$15,200 more on fees and other expenses, and will earn \$33,500 less than someone who graduated in two years.

Table 1: The cost of extended time to degree

For example, at Los Angeles Area Community Colleges

A student who graduates...	Spends approximately this much out of pocket*	...this amount more than graduating on time	Will earn this much more over his/her lifetime as a result of having an associate degree...	...this amount less than graduating on time	Combination of extra educational expense and lost wages
...in 2 years	\$15,100	—	\$546,400	—	—
...in 3 years	\$22,700	\$7,600	\$530,800	(\$15,600)	\$23,200
...in 4 years	\$30,300	\$15,200	\$512,900	(\$33,500)	\$48,700
...in 5 years	\$37,800	\$22,700	\$480,900	(\$65,500)	\$88,200
...in 6 years	\$45,400	\$30,300	\$457,000	(\$89,400)	\$119,700

Notes: 1) Estimates are for an 18 year old student with a family income between \$48,000 and \$75,000 who will attend full-time and will not work during college; 2) The tool assumes the retirement age at 64 and no unemployment throughout one's lifetime once the degree was earned. 3) Figures in table have been rounded.

* Net price of fees, books, supplies, room and board, transportation and other expenses.

Source: Student Cost Model Tool (IPEDS average net price by income level and American Community Survey state-level wage estimates).⁵⁷

Higher Costs to California

Just as excess credits have implications for students and their families, there are also implications for the state of California. States benefit immensely from an educated citizenry—their higher earnings produce more tax revenue and lower the cost of social services. When students take longer to earn their degrees the state is losing out on these additional monies. National data shows that associate degree holders pay about \$2,200 more per year in taxes than do those with a high school diploma only.⁵⁸ This money adds up given the tens of thousands of students who are taking longer than the traditional two years to complete their associate degrees.

Compared with other states, California's state and local tax dollars make up a larger share of community colleges revenues than do student fee dollars.⁵⁹ So when students attempt more credits than they complete, those taxpayer dollars are not going to serve additional students instead. Table 2 provides estimates of the value of reducing credits to degree in terms of total costs and the ability to serve more students. Even a slight reduction in the number of excess credits could free up enough dollars and space to serve a significant number of students. For example, reducing average credits to degree by one percent, or the equivalent of one credit, from 78 credits to 77 credits frees up \$21 million in state expenditures which could provide enrollment to more than 7,000 additional full-time students. A 20 percent reduction in credits would have associate degree earners completing with 62 semester credits (close to the original 60 required for an associate degree) and could provide capacity for more than 117,000 additional full-time spots.⁶⁰

Table 2: The value of reducing credits to degree

If credits to degree at California's Community Colleges were reduced by...

	1%	5%	10%	20%
Average Credits	77	74	70	62
Student Savings	\$2,000,000	\$8,000,000	\$16,000,000	\$32,000,000
Reinvestment in CCC	\$21,000,000	\$84,000,000	\$168,000,000	\$336,000,000
Additional Space for Full-Time Students	7,320	29,280	58,560	117,120

Source: State Cost Model Tool.⁶¹

Recommendations for Reducing Time and Credits to Degree at California Community Colleges

The growing time to degree and expanding number of credits earned and attempted have substantial costs for students and the state and hinder the community college system's ability to produce more graduates.

Outlined below are several recommendations to reduce time and credits to degree for California Community College (CCC) students while also expanding the capacity and resources of college campuses and the state. Just as the causes of extended time and credits to degree are interrelated, so are many of the possible solutions. Some of the recommendations below address both issues.

1. Ensure all colleges move students through pre-college level courses successfully and quickly and map out clear pathways to degrees.

Enrollment in pre-college level coursework is one of the greatest contributors to extended time and credits to degree. Additionally, many students are unclear about their academic pathway and goals. Some steps toward this goal include:

- **Reimagine the assessment test.** Before students enroll in college they are given assessment tests that place them in courses for which they are "ready" or "prepared." However, research has shown that these assessment tests may not be effective in gauging how well a student will perform or how much they know.⁶² Instead, some colleges are beginning to use high school GPA or SAT or AP test scores as a better indicator of college readiness. Long Beach City College places incoming students in English and math courses based on their high school grades. Consequently, dramatic gains have been made in the number of students who start and complete college-level courses.⁶³
- **Redesign pre-college level course delivery.** The more pre-college level courses students must take, the less likely they are to ever complete college English or math. Colleges should shorten their developmental sequences and eliminate the many exit points where students are lost. Evidence from the California Acceleration Project shows that students who entered the accelerated pathways created by the curricular redesign process (in which pre-college level courses led directly into college-level courses after one semester instead of two) were much more likely than students in the traditional sequence to complete transfer-level, gatekeeper English and math courses.⁶⁴ This type of innovation should form the basis of a statewide initiative.
- **Fully implement the Associate Degree for Transfer program.** This program streamlines the process of transferring from a California Community College to the California State University System by keeping credits to 60 and awarding an associate degree. It is estimated that this program will save approximately \$160 million and increase enrollment by 40,000 community college students and 14,000 California State University Students annually.⁶⁵

- **Implement and utilize degree tracking systems.** Technological tools can help students track their coursework and degree progress and notify them of when they have satisfied degree requirements, even if outside their declared major. Mt. San Antonio College, for example, has implemented the Mountie Academic Plan, which monitors student progress toward a degree and allows students to track their own progress.⁶⁶ This program also allows students to run “what-if” scenarios to compare their degree completion options and pathways. This type of tool should be implemented at every college to help students and advisors monitor progress. Furthermore, similar tools can retroactively award associate degrees to previously-enrolled students who completed course requirements without realizing it, as demonstrated by Project Win-Win, a national initiative.⁶⁷

2. Ensure that the recommendations of the Student Success Task Force are faithfully enacted at all colleges across the state.⁶⁸

California's community colleges need to uniformly implement the recommendations of the Task Force. The recommendations can help to reduce time to degree, particularly:

- **Priority enrollment.** In an effort to ensure that students who need certain courses to graduate are able to register for those courses, community colleges have implemented a registration priority process that “will grant priority to students who have a plan for their higher education and who have completed assessment tests as well as orientation.”⁶⁹ This policy, while very promising, takes effect in 2014, making it too early to assess the true impact on time to degree completion.
- **Match courses to student needs.** Community colleges will work to base course availability on student demand. California's community colleges should work to ensure that there is enough space in high-demand courses to satisfy student need and ensure that lack of course availability is not an impediment to timely degree completion.
- **Academic counseling and education plans.** Full-time and continuous enrollment is one of the most significant predictors of whether a student will complete his or her degree on time. Often students do not understand what they must do in order to complete their degree programs in a timely manner. Academic counseling that focuses on the benefits of 15-credit enrollment and helps create education plans that chronologically and sequentially map out graduation requirements in a timely fashion is important.
- **Additional student supports.** Programs that offer wraparound services to low-income community college students who require support on their path to higher education should be offered at every campus. Research has shown that low-income students face significant barriers to successfully completing college and that institutional supports such as assistance with child-care, money management, transportation costs and legal advice have demonstrated positive results in shortening the time and credits to degree for students and increases their chances of graduating.⁷⁰ Programs, such as Single Stop USA, that offer services to help students access public benefits, legal aid, tax preparation assistance, and money management courses have demonstrated improvement in student persistence and graduation.⁷¹

3. Increase funding for colleges to serve and graduate more students.

California should work to ensure that students are able to access the courses they need to complete their degrees in a timely fashion. Some steps toward this goal include:

- **Fund colleges for both enrollment and outcomes.** Increase funding for higher education to ensure all students have a spot in college. Ensure funding creates incentives not just for college enrollment, but also for positive outcomes such as improved rates of completion and reduced time to degree.
- **Prioritize new community college funding** by targeting additional dollars to increase course offerings and enhance student supports. For the past several years, the community college system has been dramatically underfunded. With the passage of Proposition 30, the state is in receipt of additional resources and the coming years may bring new revenues to the system. New state resources should be targeted to expand course offerings and critical student supports as a strategy for helping students progress through their academic programs, increasing the number of graduates, and reducing the time it takes to complete their degrees.

4. Expand access to financial aid.

Research shows that low-income students are more likely to progress through and complete college if they access federal, state, and institutional grant aid. Unfortunately, not enough eligible low-income students in California access this aid. Additionally, costs of living, expenses that the Board of Governor's Fee Waiver does not cover, are greater than fees at the community college itself. California should take the following steps to ensure that more students have access to financial aid:

- **FAFSA Application rates.** Increase the number of students who complete the Free Application for Federal Student Aid (FAFSA) by educating high school students early and often about financial aid and the FAFSA. Ensure students maximize their federal and state financial aid and work-study offers by completing the FAFSA and Cal Grant application.
- **Automatic GPA verification.** To meet the requirement of the Cal Grant and to reduce the burden on the student, require all high schools to electronically submit GPA and graduation verification for all high school seniors directly to the California Student Aid Commission.
- **Increase the amount of state financial aid** to cover necessary costs of attendance beyond fees for low- and middle-income students.

5. Provide information on time to degree to students, policymakers, and researchers.

Access to time and credit to degree information is important to better understand the impacts of the problem on California's students, colleges and budgets. Data on time and cost to degree is essential for policymakers and students in order to make informed decisions. Important data are either not readily available or not currently collected in California. Moving forward, California needs to:

- **Ensure that each community college campus tracks, records, and monitors time and credits to degree**, and credits attempted by program of study and make that information available on system and/or institutional websites.
- **Develop and make available data on time, credits and cost to degree.** There is little information about time and credits to degree available on system or institutional websites and this lack of data leads to limited information and analyses.
- **Authorize a statewide independent body to collect and report relevant data.** Given the high rates of transfer within and among public systems in California, system offices by themselves do not capture the full range of data needed to understand time to degree. A data collection center or coordinating body could help standardize data and make key reports available to higher education stakeholders.
- **Create and maintain a longitudinal data system.** Such a tracking system would contain information about student education, student progress and outcomes after college, including entry into graduate school or the workforce (including earnings). Doing so will facilitate understanding of students' educational progress and will help California's colleges better address the state's and students' needs.

Conclusion

California's community colleges are open-access institutions with broad missions to fill a wide array of roles within the state's higher education system and are critical to the education of the California workforce.

California sends more students to community colleges than any other state. Almost 70 percent of students in higher education in California attend a community college.⁷² Twenty-nine percent of University of California and 51 percent of California State University graduates started at a California community college.⁷³ California's community colleges are critical to the education and workforce of our state.

The issue of time and cost to degree for students is complicated. While some community college students have no intention of earning a degree, most do. Many hope to go on to a four-year university. For them, the real cost and length of time to complete a community college degree is growing and threatening their ability to accomplish their goals. This is particularly heartbreaking considering that most students turn to community colleges with the belief that it is the most affordable option.

Affordability is one of the greatest barriers to students enrolling in college and graduating with a degree. The length of time it takes the average student to attain a degree has an enormous impact on the total cost – both in direct college expenses, living expenses and in lost income and lower wages.

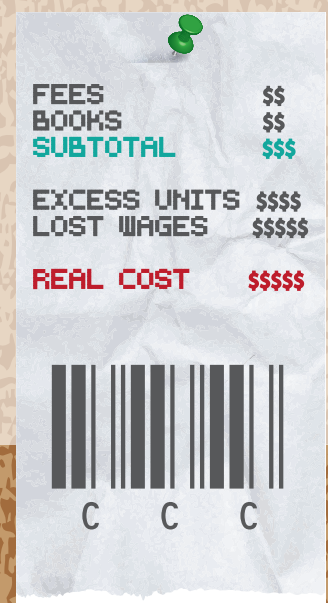
The lengthened time is proving equally costly to the state both in funding overcrowded campuses and in the loss of educated and skilled workers from our economy and the higher taxes they would pay on increased earnings. It becomes a domino effect as students who are delayed in their graduation are delaying or preventing new students from entering and attending college.

It is clear that for students, their families and the state's fiscal well-being, California needs to minimize time and credits to degree at the community colleges. While it has taken important first steps to do so, more must be done.

There are steps that can be taken immediately at both the state- and campus-level that will dramatically improve the time and reduce the cost of completion for students pursuing associate degrees:

- Ensure all colleges move students through pre-college level courses successfully and quickly and map out clear pathways to degrees;
- Faithfully and fully execute the recommendations of the Student Success Task Force;
- Increase funding for colleges to serve and graduate more students;
- Expand financial aid access; and
- Make time to degree information available for students making college decisions and policy makers making policy decisions.

Time is a precious commodity for our students and for our state--the time to act is now.



Appendix A

What Does This Report Do?

This report contains information on time and credits to degree for 1) those who earned one associate degree only and 2) those who earned one certificate only, and no other award, at a California Community College (CCC) in the 2011-12 or 2012-13 academic years. The data, unless otherwise noted, were provided by the CCC Chancellor's Office in November 2013.

Note about associate degree analysis:

The data revealed that there were 79,674 people who earned an associate degree in 2012-13. Of those, we analyzed the 63,751 students who earned one associate degree only and no other award. Meaning, the 63,751 figure excludes students who 1) received more than one associate degree and 2) earned an associate degree in combination with a certificate.

Note about certificate analysis on page 7:

This certificate analysis on page 7 focused on students who earned one certificate only, and excludes students who earned multiple certificates or a certificate in combination with an associate degree. According to the data provided, of the 72,878 students who earned a certificate in 2012-13, 70,041 of them earned only one certificate—this is where we conducted our analysis.

The data included the following information:

- Race
- Gender
- Birthdate
- Pell Grant status
- Board of Governors Fee Waiver status
- Term of enrollment
- Year of graduation
- Type of award (associate or certificate)
- Degree program code (note, analysis by program was out of the scope of this report)
- Enrollment information for each term, including:
 - number of total credits attempted
 - number of total credits completed
 - basic skills credits attempted, and
 - basic skills credits completed.

Three measures of interest for this report are *years to degree*, *total completed credits* and *total credits attempted*:

- *Years to degree* is the time, in terms of calendar years, that elapsed from when a student first enrolled at a CCC campus until that student received an associate degree. The first enrollment date is the first month of the beginning term and the graduation date is the last month of the graduation term.
- *Credit to degree* is the cumulative number of credits completed by a student who has earned an associate degree. This includes basic skills credits. Credits to degree is important to students who pay for education by the credit hour and in terms of calculating total state investment.
- *Attempted credits* is the number of credits in which a student enrolled. This number includes credits that they did not earn because they failed or dropped out or withdrew from the course.

Median years, attempted credits and credits to degree were calculated for all students combined as well as by gender, race, Pell grant status, Board of Governors Fee Waiver status and whether the student had enrolled in basic skills courses. The medians reflect the years or credits that half the students were above and half below. This report uses median rather than average years and credits to degree because with extreme values in the data, the median gives a more representative picture of time and credits to degree.

There were no significant differences in the median years and credits to degree between those who completed their degrees in 2011-12 and those who completed theirs in 2012-13. This report uses only the most recent year of degree earners in order to reduce possible duplication in the data and to give the most current description.

What This Report Does Not Tell Us

This report provides valuable information, but does have limitations in scope based on the data that were available to the authors. Specifically, this report does not:

- Account for the difference in degree programs; or
- Track students who have transferred to a four-year university to complete a bachelor's degree.

Questions for Further Research

This report helps to shed light on the number of years that students who actually complete an associate degree take and the number of credits they attempt and complete while doing so. However, in order to truly understand the phenomenon of extended time and credits to degree, additional research is needed so that targeted strategies and solutions are implemented in order to reduce time and credits to degree such as:

- What are the credits that students attempt, but do not complete? Are those the result of failure, withdrawal or dropped courses? Which courses are they?
- How do student enrollment behaviors (enrollment at multiple college campuses concurrently or in succession) affect time and credits to degree?
- How do time and credits to degree vary by program of study?
- What are the effects of fee increases on expanding capacity and student supports? California has already begun to experiment. In October 2013, Governor Brown signed legislation (AB 955) to create a voluntary pilot program to permit a small subset of the state's community colleges to charge more for high demand courses in order to expand access. As time progresses, an evaluation on this program should be conducted to assess its effectiveness.
- How do students perform in terms of time and credits to degree after transferring from a community college to a four-year university?
- Why is there such a notable difference across racial/ethnic groups in terms of credits attempted and credits earned?
- What can be done to close gaps and reduce time and credits to degree for all students?

Appendix B: Tools for Estimating Time and Cost to Degree in California: Methodological Report

This report explores time to degree and associated costs for students at California's Community Colleges and calls for decreasing time to degree, which would in turn decrease costs and increase capacity at California's colleges.

Three tools were designed by the consulting firm Postsecondary Analytics, LLC to accompany these reports. These interactive tools illustrate the impact of different variables on time and costs to degree and the potential benefits to students, colleges and the state of reducing time to degree:

1. The **Time to Degree Tool** demonstrates how different factors can impact the time it takes for students to earn their bachelor's degrees.
2. The **Student Cost Tool** estimates the cost to degree for students depending on the college or university, income level, age at entry, time to degree and other inputs.
3. The **State Cost Tool** estimates the cost of extended time to degree based on the state, college or university and students.

Time to Degree Tool

The tool shows how pre- and post-matriculation college factors affect a student's years to bachelor's degree. The tool is built on a multiple regression model, which drew on 8,800 students who received a bachelor's degree in 2007-08. The data were obtained from *Baccalaureate and Beyond, 2008-09*. Although this is a national level survey, the model included a regional factor, which was not significant. Thus, in the absence of comprehensive California-specific data, the results are likely to be reasonably representative.

Methodology

The tool is built on a multiple regression model with an R-squared at 0.42. The model includes three groups of independent variables pertained to a student's characteristics: 1) academic performance during high school, 2) academic path during college and 3) demographic and economic characteristics during college.

Definition of Variables

- **Earned any college credits in high school:** whether the respondent earned any college credits in high school. College credits can be college credits earned at a college or Advanced Placement credits earned in high school.
- **Grade point average in high school:** the respondent's high school grade point average (GPA) on the most recent date they took a college admissions test.
- **Average credits earned per academic year:** average number of credits earned per year during the first six years of enrollment (normalized).
- **Number of remedial courses taken:** total number of remedial courses taken
- **Number of institutions attended before a bachelor's degree:** the number of postsecondary institutions the respondent attended before completion of the 2007-08 bachelor's degree.
- **Ever stopped out before a bachelor's degree:** whether the respondent ever stopped out (took a break in enrollment of more than four months) en route to completing the 2007-08 bachelor's degree.
- **Received bachelor's degree with honors:** bachelor's degree was received with honors.

- **Primarily student or employee:** the respondent's primary role while enrolled at the 2007-08 bachelor's degree-granting university and also working (including work-study, assistantships and traineeships).
- **Marital status (married or have dependents):** whether the respondent was married (or living in a marriage-like relationship) or whether or not the respondent had dependents at the time of interview. Unmarried includes separated respondents.
- **Income percentile:** indicates income percentiles for all respondents. Calculated separately for dependent and independent respondents and then combined into this variable. Each ranking thus compares the respondent only to other respondents of the same dependency status.
- **Monthly rent or mortgage payment:** indicates how much the respondent paid monthly in rent or mortgage.

Student Cost Tool

This tool estimates the return on investment of a college degree, based on a student's completion plan, age at entry, college attended, enrollment intensity (15 credits or more vs. less than 15 credits), employment intensity during college, and years to degree. The tool prompts the user to select a value for each parameter, a combination of which will return different net earnings resulting from a college degree, plus the return on investment of a college education.

To illustrate the relationship between students' time and the costs and benefits they experience from higher education, the Student Cost Tool estimates the cost to degree completion, including opportunity cost and the resultant net benefit. The tool uses inputs including income level, enrollment status and anticipated time to degree, combined with publicly available data from the Integrated Postsecondary Education Data System (IPEDS). In addition to this tool, the average net price of attendance is available for all institutions through the Department of Education's College Navigator. This tool uses California-specific data from the American Community Survey (ACS) to calculate the additional lifetime earnings as a result of earning a degree (the net benefit to the student).

Methodology

Return on investment is the ratio of estimated net lifetime earnings for a college degree holder (based on California data in the ACS) to the cumulative net price of college attendance. Estimated net earnings comprises the difference between the user's estimated lifetime earnings and the average lifetime earnings for those with a high school diploma only in California. Lifetime earnings are calculated based on the average earnings for California residents in the labor force by degree type at age 18 through 64 in 2011. This model assumes that the user will stay employed throughout his/her lifetime except the time spent in college.

Cumulative net price of attendance is a multi-year total net cost of attendance required to obtain a degree. Net cost includes tuition and fees and other costs of attendance, such as textbooks, room and board and other costs of living, as retrieved from IPEDS survey on the average net cost of attendance for full-time students on Title IV grants and scholarships by income level from 2009-10, 2010-11, and 2011-12. The cumulative net price of attendance is the product of the 2010-11 net price and years to degree (as indicated by the user), assuming that the base price will increase by the same rate as the last three year's average compound growth rate. For a part-time student, the cumulative net cost of attendance is a half of that for a full-time student on the same academic path.

State Cost Tool

This tool estimates excess educational expenditures resulting from delayed graduation based on 2010-11 data from the Integrated Postsecondary Education Data System's (IPEDS) Finance, Completion and 12-Month Enrollment components, data year 2010-11.

Excess cost is the educational expenditures on aggregated credit hours attempted beyond 120 credit hours at four-year universities and 60 credit hours at two-year colleges for all completers in 2010-11. The user selects the average excess credit hours to degree, which the tool uses to calculate excess cost and potential additional enrollment capacity that could be accommodated with the excess dollars.

Methodology

To calculate excess cost, this tool first calculates cost per credit hour. The calculation of cost per credit hour divides educational expenditures (all spending for instruction and student services, plus a portion of spending on academic and institutional support and for operations and maintenance of buildings) by annual average credit hours based on credit hour data reported on the IPEDS 12-month Enrollment component.

The cost per credit hour is applied to excess average credit hours to degree (input by the user) to calculate total cost per excess credit hour. The total cost is allocated proportionately by revenue source to students (based on net tuition revenue), state (based on appropriation revenue) and others (the remainder proportion of revenue).

Increased capacity is calculated by dividing the total excess credit hours (based on user input and number of undergraduate degree earners) by the average undergraduate credit hours for a year. The result is the number of full-time spots the excess credit hours could have served (note: this is not necessarily the number of students in a year).

Definition of Variables

- **Excess credit hours to degree:** the difference between the actual average credit hours to degree and the minimum required credit hours for a degree.
- **Excess cost:** the education and related (E&R) expenditures needed to provide instruction for the excess credit hours earned by the completers.
- **Potential additional student capacity:** the number of additional students who could enroll with the excess cost. Mathematically, it is the division of the excess cost by the annual average credit hours attempted by undergraduate students.

Endnotes

- ¹ Public Policy Institute of California (2008). *California's Future Workforce: Will There Be Enough College Graduates?* Retrieved from http://ppic.org/content/pubs/report/R_1208DRR.pdf.
- ² The median is the midpoint figure at which an equal number of students fall above that point and an equal number fall below that point.
- ³ The first report in the series, *Borrowing for College*, examines the increasing rates of student loan borrowing in California and implications. This report can be found at <http://www.collegecampaign.org/resource-library/our-publications/>.
- ⁴ Definitive answers to what causes extended time and credits to degree are difficult to provide due to the number of moving parts and potential factors and the dearth of data available. However, we can identify several factors that are correlated with extended time and credits to degree.
- ⁵ Hoachlander, G., Sikora, A. C., & Horn, L. (2003). *Community College Students: Goals, Academic Preparation, and Outcomes*. Postsecondary Education Descriptive Analysis Reports. Retrieved from http://nces.ed.gov/pubs2004/2004608_3.pdf.
- ⁶ Center for Community College Student Engagement. (2013). *A Matter of Degrees: Engaging Practices, Engaging Students (High-Impact Practices for Community College Student Engagement)*. Austin, TX: The University of Texas at Austin, Community College Leadership Program. Retrieved from http://www.ccsse.org/docs/Matter_of_Degrees_2_EFAHQR.pdf.
- ⁷ Belfield, Clive. (2013). *The Economic Benefits of Attaining an Associate Degree Before Transfer: Evidence From North Carolina*. Community College Research Center, Teachers College, Columbia University. Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/economic-benefits-associate-degree-before-transfer.pdf>.
- ⁸ Crook, David, Chellman, Colin C., and Holod, Aleksandra. (2012). *Does Earning an Associate Degree Lead to Better Baccalaureate Outcomes for Transfer Students?* City University of New York, Office of Policy Research. Retrieved from http://www.cuny.edu/about/administration/offices/ira/opr/papers/associate_degree.pdf.
- ⁹ California Community Colleges Chancellor's Office. Statewide Student Success Scorecard. Retrieved from <http://scorecard.cccco.edu/scorecardrates.aspx?CollegeID=000#home>.
- ¹⁰ Complete College America (2011). *Time is the Enemy The surprising truth about why today's college students aren't graduating...AND WHAT NEEDS TO CHANGE*. Retrieved from http://completecollege.org/docs/Time_Is_the_Energy.pdf.
- ¹¹ It is important to note that median time to degree was calculated for all students who earned an associate degree during the 2012-13 academic year. This report looked at students who earned an associate degree in 2012-13 and then worked backwards to count how long they took by their first date of enrollment. This differs from graduation rates which looks at a beginning cohort of students in the past and follows them forward to determine the proportion who graduated.
- ¹² Data from California Community College's Chancellor's Office, Datamart.
- ¹³ The National Center for Public Policy and Higher Education. (June 2007). *Investigating the Alignment of High School and Community College Assessments in California*. Retrieved from http://www.highereducation.org/reports/brown_niemi/BROWN_NIEMI.pdf.
- ¹⁴ Venezia, A., Bracco, K. R., & Nodine, T. (2010). *One-shot deal? Students' perceptions of assessment and course placement in California's community colleges*. San Francisco: WestEd. Retrieved from http://www.wested.org/online_pubs/oneshotdeal.pdf.
- ¹⁵ Adelman, Cliff. (2006). *The Toolbox Revisited*. Washington, DC. Retrieved from <http://www2.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html>.
- ¹⁶ Bound, John; Lovenheim, Michael; Turner, Sarah. (April 2010). *Increasing Time to Baccalaureate Degree in the United States*, Research Report 10-698. Ann Arbor, MI. Retrieved from <http://www.psc.isr.umich.edu/pubs/pdf/rr10-698.pdf>.
- ¹⁷ The CCC data confirm that gender differences are slight. The median time to degree is 4.3 years for women and 4.0 years for men. Students of both genders earned a median of 78 credits and attempted a median of 90 credits.
- ¹⁸ The Federal Pell Grant Program provides need-based grants to low-income students to promote access to postsecondary education. The Board of Governors (BOG) Fee Waiver permits California Community College enrollment fees to be waived for eligible (need-based) California residents.
- ¹⁹ Oseguera, Leticia. (July 2013). *Importance of High School Conditions for College Access*. University of California ACCORD. Retrieved from http://pathways.gseis.ucla.edu/publications/201307_HSConditionsRB.pdf.
- ²⁰ U.S. Department of Education Office for Civil Rights. *Civil Rights Data Collection Data Snapshot: College and Career Readiness*. Issue Brief No. 3 (March 2014). Retrieved from <http://www2.ed.gov/about/offices/list/ocr/docs/crdc-college-and-career-readiness-snapshot.pdf>.
- ²¹ U.S. Department of Education Office for Civil Rights. *Civil Rights Data Collection Data Snapshot: Teacher Equity*. Issue Brief No. 4 (March 2014). Retrieved from <http://www2.ed.gov/about/offices/list/ocr/docs/crdc-teacher-equity-snapshot.pdf>.
- ²² Melguizo, Tatiana, Hagedon, Linda Serra, and Cypers, Scott. *The Need for Remedial/Developmental Education and the Cost of Community College Transfer*. Retrieved from http://www.usc.edu/dept/education/rossier_faculty/tmelguizo/docs/The%20Cost%20of%20
- ²³ Complete College America. (2012). *Remediation: Higher Education's Bridge to Nowhere*. Retrieved from <http://www.completecollege.org/docs/CCA-Remediation-final.pdf>.

- ²⁴ Solórzano, Daniel; Amanda Datnow, Vicki Park, and Tara Watford. (2013). *Pathways to Postsecondary Success: Maximizing Opportunities for Youth in Poverty*. Los Angeles, CA: UC/ACCORD and PATHWAYS to Postsecondary Success. Retrieved from <http://pathways.gseis.ucla.edu/publications/PathwaysReport.pdf>.
- ²⁵ Mullin, C. M. (April 2012). *It's a Matter of Time: Low-income Students and Community Colleges* (Policy Brief 2012-02PBL). Washington, DC: American Association of Community Colleges. Retrieved from http://www.aacc.nche.edu/Publications/Briefs/Documents/itsamatteroftime_04162012.pdf.
- ²⁶ Solórzano, Daniel; Amanda Datnow, Vicki Park, and Tara Watford. (2013). *Pathways to Postsecondary Success: Maximizing Opportunities for Youth in Poverty*. Los Angeles, CA: UC/ACCORD and PATHWAYS to Postsecondary Success. Retrieved from <http://pathways.gseis.ucla.edu/publications/PathwaysReport.pdf>. And Mundel, D. (2008). What do we know about the impact of grants to college students? In S. Baum, M. McPherson, & P. Steele (Eds.), *The effectiveness of student aid policies: What the research tells us* (pp. 9–38). New York, NY: The College Board. And Bettinger, E. (2004). How financial aid affects persistence. In C. Hoxby (Ed.), *College choices: The economics of where to go, when to go, and how to pay for it* (pp. 207–333). Chicago, IL: University of Chicago Press. And MPR Associates, Inc. Research Brief: *The Impact of Pell Grants on Academic Outcomes for Low-Income California Community College Students*. Retrieved from http://inpathways.net/MPR_Research_Brief_5.pdf.
- ²⁷ Carnevale, A. P., Rose, S. J., & Hanson, A. R. (2012). *Certificates: Gateway to Gainful Employment and College Degrees*. Georgetown University Center on Education and the Workforce. Retrieved from <http://cew.georgetown.edu/certificates/>.
- ²⁸ Ibid.
- ²⁹ Public Policy Institute of California. (2013). *The Impact of Budget Cuts on California's Community Colleges*. Retrieved from http://www.ppic.org/content/pubs/report/R_313SBR.pdf.
- ³⁰ Gross, Jillian and Bahr, Riley. "Implication of Evolving Registration Priority Policies in California's Community Colleges," blog post for the Policy Analysis for California Education. Retrieved from <http://www.edpolicyinca.org/blog/implications-evolving-registration-priority-policies-californias-community-colleges>.
- ³¹ Public Policy Institute of California. *The Impact of Budget Cuts on California's Community Colleges*.
- ³² Legislative Analyst's Office. *The 2011-12 Budget: Prioritizing Course Enrollment at Community Colleges*. Retrieved from http://www.lao.ca.gov/analysis/2011/highered/ccc_course_enrollment.aspx.
- ³³ Public Policy Institute of California. *The Impact of Budget Cuts on California's Community Colleges*.
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ California Community College Student Success Scorecard for 2007-08 entering cohort. Retrieved from <http://scorecard.cccco.edu/scorecardrates.aspx?CollegeID=000#home>.
- ³⁸ National Conference of State Legislatures. *Hot Topics in Higher Education: Reforming Remedial Education*, accessed from <http://www.ncsl.org/research/education/improving-college-completion-reforming-remedial.aspx>.
- ³⁹ California Community Colleges Chancellor's Office. Statewide Student Success Scorecard. Complete College America. *Remediation: Higher Education's Bridge to Nowhere*.
- ⁴⁰ Solórzano, Daniel; Amanda Datnow, Vicki Park, and Tara Watford. *Pathways to Postsecondary Success: Maximizing Opportunities for Youth in Poverty*.
- ⁴¹ Ibid.
- ⁴² California Community College Chancellor's Office, email correspondence, May 7, 2014.
- ⁴³ The Academic Senate for California Community Colleges. (2003). *Consultation Council Task Force on Counseling*. Retrieved from http://www.asccc.org/sites/default/files/publications/ConsultationCouncil_0.pdf.
- ⁴⁴ Solórzano, Daniel; Amanda Datnow, Vicki Park, and Tara Watford. *Pathways to Postsecondary Success: Maximizing Opportunities for Youth in Poverty*.
- ⁴⁵ Ibid.
- ⁴⁶ The Free Application for Federal Student Aid is a form used by the U.S. Department of Education to determine eligibility for student financial aid (both grants and loans).
- ⁴⁷ The Institute for College Access & Success. (2007). *Going to the Source: A practical way to simplify the FAFSA*. Retrieved from http://www.ticas.org/files/pub/FAFSA_FINAL.pdf.
- ⁴⁸ The Institute for College Access & Success. (2010). *Financial Aid Facts at California's Community Colleges*. Retrieved from http://www.ticas.org/files/pub/cac_fact_sheet.pdf.
- ⁴⁹ Goldrick-Rab, S. (2010). *Challenges and opportunities for improving community college student success*. Review of Educational Research, 80(3), 437–469. Retrieved from <http://knowledgecenter.completionbydesign.org/sites/default/files/75%20Goldrick-Rab-2010.pdf>.
- ⁵⁰ U.S. Department of Education Office of Federal Student Aid. *Federal Student Aid Handbook 2013-2014*. Retrieved from <https://ifap.ed.gov/fsahandbook/attachments/1314FSAHandbookCompleteActiveIndex.pdf>.

- ⁵¹ California Student Aid Commission. 2013-14 Cal Grant Programs: General Eligibility Requirements. Retrieved from http://www.csac.ca.gov/news/g-30_calgrantcomparisonchart.pdf.
- ⁵² Legislative Analyst's Office. (March 2014). *Financial Aid Overview*. Retrieved from <http://www.lao.ca.gov/handouts/education/2014/Financial-Aid-Overview-031314.pdf>.
- ⁵³ Moore, Colleen, Connie Tan, and Nancy Shulock. (2014). *Average Won't Do: Performance Trends in California Higher Education as a Foundation for Action*. Institute for Higher Education Leadership & Policy, California State University – Sacramento. Retrieved from <http://www.collegecampaign.org/resource-library/our-publications/>.
- ⁵⁴ Legislative Analyst's Office. *Financial Aid Overview*.
- ⁵⁵ Carnevale, Anthony, Rose, Stephen, and Cheah Ban. *The College Payoff: Education, Occupations, Lifetime Earnings*. Retrieved from <https://cew.georgetown.edu/collegepayoff>.
- ⁵⁶ This report recognizes that the middle-income student example may not be the norm for the majority of community college students. In order to create these tools, numerous assumptions were made, the details of which can be found in the methodology in Appendix X.
- ⁵⁷ This report is accompanied by the Student Cost Tool (for more information on the Student Cost Tools, please refer to Tools for Estimating Time and Cost to Degree in California), which estimates the cost to degree completion, including forgone wages and the resultant net benefit. The Students Cost Tool can be accessed from www.collegecampaign.org.
- ⁵⁸ Taxes paid include federal income, Social Security, Medicare, state and local income, sales, and property taxes. The College Board (2013). *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*. Retrieved from <http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf>.
- ⁵⁹ Moore, Colleen, Connie Tan, and Nancy Shulock. *Average Won't Do: Performance Trends in California Higher Education as a Foundation for Action*.
- ⁶⁰ The additional capacity is not additional full-time students per year. For example, consider a student who graduated in 2012-13 in 4 years instead of 6 years. The cost will be saved for the next two years (2013-14 and 2014-15) thanks to this student graduating earlier, and a few additional students could take this spot that has become available over the next two years. If this student graduated in 4 years instead of 7 years, the savings impact would be felt over the next three years. The figures on the tool correspond to collective savings/ additional enrollment stemming from shortening the time-to-degree at the system-level.
- ⁶¹ The calculations and data upon which this table was based divide total credits by number of students, resulting in an average credits, rather than median. See page 17 for an explanation of the methodology. Note, however, that the difference between the average and median credits completed or attempted in the CCC data was negligible. The State Cost Model Tool can be accessed from www.collegecampaign.org.
- ⁶² Belfield, C., & Crosta, P. M. (2012). *Predicting success in college: The importance of placement tests and high school transcripts*. Retrieved from <http://toped.svefoundation.org/wp-content/uploads/2012/02/Predicting-Success-in-College-The-importance-of-placement-tests-and-high-school-transcripts.pdf>.
- ⁶³ Long Beach College Promise Five-Year Progress Report. (2013). Retrieved from <http://www.longbeachcollegepromise.org/wp-content/uploads/2013/03/LBCP-5-Year-ProgressReport.pdf>.
- ⁶⁴ The Research & Planning Group for California Community Colleges. (2014). *Curricular Redesign and Gatekeeper Completion: A Multi-College Evaluation of the California Acceleration Project*. Retrieved from <http://cap.3csn.org/files/2014/04/RP-Evaluation-CAP.pdf>.
- ⁶⁵ California Community Colleges Chancellor's Office, Office of Communications. *Key Facts about California Community Colleges*. Retrieved from <http://californiacommunitycolleges.cccco.edu/PolicyInAction/KeyFacts.aspx>.
- ⁶⁶ Campaign for College Opportunity. (2013). *Mountie Academic Plan: Mt. San Antonio College*. Retrieved from http://www.collegecampaign.org/files/1713/8194/6147/What_Works_Now_Mt_SAC_Mountie_Academic_Plan.pdf.
- ⁶⁷ Institute for Higher Education Policy. (2013). *Project Win-Win at the Finish Line*. Retrieved from <http://www.ihep.org/Publications/publications-detail.cfm?id=166>.
- ⁶⁸ As part of the Student Success Initiative, the California Community College Board of Governors approved the Student Success Task Force in 2012.
- ⁶⁹ California Community Colleges Chancellor's Office. (September 19, 2012). Press Release, California Community Colleges Board of Governors Approves System-wide Enrollment Priorities to Increase Student Success. Retrieved from http://www.californiacommunitycolleges.cccco.edu/Portals/0/DocDownloads/PressReleases/SEP2012/PRESS_RELEASE_BOGPRIORITY_091012x_FINAL.pdf.
- ⁷⁰ Goldrick-Rab, Sara and Katharine Broton, and Christin Gates. (2013). *Clearing the Path to a Brighter Future: Addressing Barriers to Community College Access and Success*. Retrieved from <http://www.singlestopusa.org/wp-content/uploads/2013/06/Goldrick-Rab-Broton-and-Gates-2013-Clearing-the-Path-to-a-Brighter-Future-Addressing-Barriers-to-Community-College-Access-and-Success.pdf>.
- ⁷¹ Ibid.
- ⁷² Author's analysis of IPEDS fall-enrollment data, 2012-13.
- ⁷³ California Community College's Chancellor's Office. (2013). *Student Success Scorecard: 2013 State of the System Report*. Retrieved from http://californiacommunitycolleges.cccco.edu/Portals/0/FlipBooks/2013_StateOfSystem/PDF/2013_StudentSuccess_State_Of_The_System_Final.pdf.

ABOUT THIS REPORT

The Real Cost of College: Time & Credits to Degree is a series of reports that examine the cost of extended time and credits to degree at The California Community Colleges (CCC) and the California State University (CSU) systems. This report focuses on the CCC. A report on the CSU can be found at the Campaign for College Opportunity's website at www.collegecampaign.org/resource-library/our-publications/

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ABOUT THE CAMPAIGN

The Campaign for College Opportunity is a broad-based, bipartisan coalition, including business, education and civil rights leaders that is dedicated to ensuring the next generation of Californians has the opportunity to go to college and succeed. The Campaign works to create an environment of change and lead the state toward effective policy solutions. It is focused upon substantially increasing the number of students attending two- and four-year colleges in California so that we can produce the one million additional college graduates that our state needs.

For more information, visit: www.collegecampaign.org.

Los Angeles Office

714 W. Olympic Boulevard, Suite 745
Los Angeles, CA 90015
Tel: 213.744.9434
Fax: 800.207.3560
Executive Director: Michele Siqueiros

Sacramento Office

1512 14th Street
Sacramento, CA 95814
Tel: 916.443.1681
Fax: 916.443.1682
Associate Director: Jessie Ryan

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