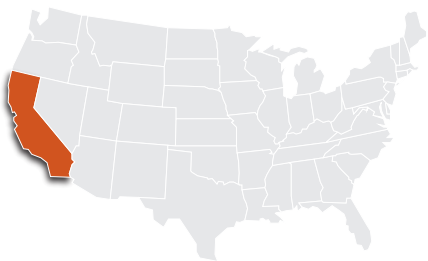
THE REAL COST OF COLLEGE

Time & Credits to Degree at California State University

The Campaign for College Opportunity

JULY 2014

The State of Higher Education in California



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Time & Credits to Degree at California State University

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 tuition, fees, 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 State University (CSU) system and the state's taxpayers.

Traditionally, students seeking bachelor's degrees spent four years in the classroom and earned 120 semester credits. But students who attend the California State University (CSU) system are taking an extended amount of time to complete their degrees and graduating with more than the required number of credits.

In the 2011-2012 academic year, bachelor's degree recipients from the CSU system took a median of 4.7 years and earned a median of 135 credits to complete their bachelor's degrees.[1] While variations in data from different states make precise comparisons difficult, this is fairly close to statistics compiled by Complete College America which reports that at four-year universities nationally, the median time to complete a bachelor's degree for full-time students is 4.7 years and 136.5 credits.[2]

The CSU serves approximately 437,000 students at 23 campuses. It offers undergraduate and graduate education through masters programs. Since 2006, it also offers a limited number of doctorate degrees jointly with the University of California. As outlined in CA's Master Plan, admission to the CSU is available to the top one-third (33.3%) of public high school graduates and all qualified community college transfer students.

The costs of extended time to degree at CSU campuses are significant. Students who entered CSU as first-time freshmen in the fall of 2006 and who took longer than four years to graduate spent a collective 22,126 more years in school and over $220 million more in tuition, fees, room and board than they would have if they had finished in four years.[3]

WHAT YOU NEED TO KNOW WHEN READING THIS REPORT

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.[4] This report examines the real cost of earning a bachelor's degree in the California State University system, beyond tuition and fees, when excess time and credits are factored in. This report looks only at students who began their academic career at CSU as a first-time freshman and earned a baccalaureate degree at CSU—including both full- and part-time students. Due to the lack of data available to the authors, this report does not examine time and credits to degree for students who transferred to CSU from another college or analyze time and credits to degree by program of study.

This report evaluates original data on time and credits to degree of students and explores possible contributors to extended time and credits to degree. It outlines why this troubling phenomenon is so important and provides recommendations for policies and actions to help more students earn a college education more efficiently and cost-effectively and colleges to best assist students in reaching their goals of attaining a degree.

How Long and How Many Credits Does it Take to Complete a Bachelor's Degree at California State Universities?

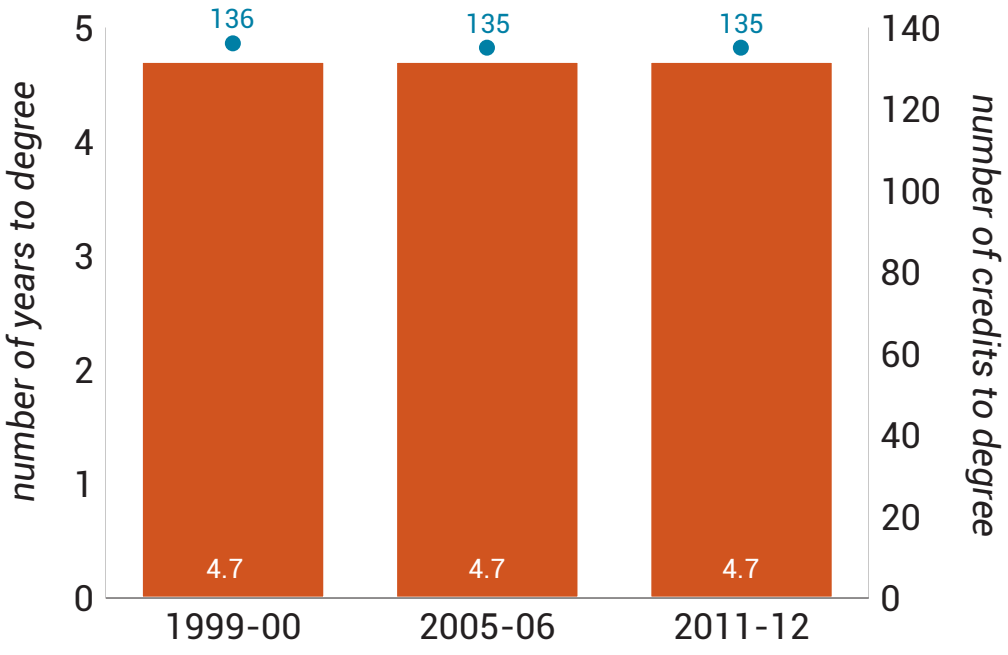
According to the United States Department of Education and the Western Association of Schools and Colleges (the accreditation agency for California public colleges and universities), the minimum number of credits for a bachelor's degree is 120 for colleges with semester calendars. **In order to complete a bachelor's degree in four years, students must complete an average of 15 credits per term**, assuming they take summers off. At most colleges, this is the equivalent of approximately four or five courses per term to graduate in four years.

In 2000, the CSU Board of Trustees reduced the minimum required credits for a bachelor's degree from 124 to 120 semester credits and required justification for any program that exceeds this maximum. However, individual degree programs are not subject to these credit limits as long as the total degree requirements do not exceed 120. But to further reduce credit requirements and cost to students, the Board of Trustees required that in the 2014-15 year, no bachelor's degree *programs* can require more than 120 credits without justification.[5]

Even with these efforts, the median time to degree at the CSU system has remained flat at 4.7 years over the past decade. The median number of credits to degree in 1999-00 was 136 and dropped by one credit to 135 in 2005-06 and remained there in 2011-12 (Figure 1). That means that among the first-time freshmen who received their bachelor's degrees from the CSU in 2011-12 (about 30,000), half of them spent longer than 4.7 years and accumulated more than 135 credits on their path to degree.

Figure 1: Time to degree has remained constant at 4.7 years over the past decade and credits to degree has reduced by one credit to 135 credits.

Median Years & Credits to Degree



Source: Author's analysis of CSU data

In addition to extended time, CSU graduates accumulate a median of135 credits—15 credits more than the standard requirements for a bachelor's degree, the equivalent of a five-course semester.

What follows is an examination of the median number of years and credits to degree for bachelor's degree graduates at CSU by the following student characteristics: gender, race/ethnicity, and whether graduates had completed credits from outside the CSU system.

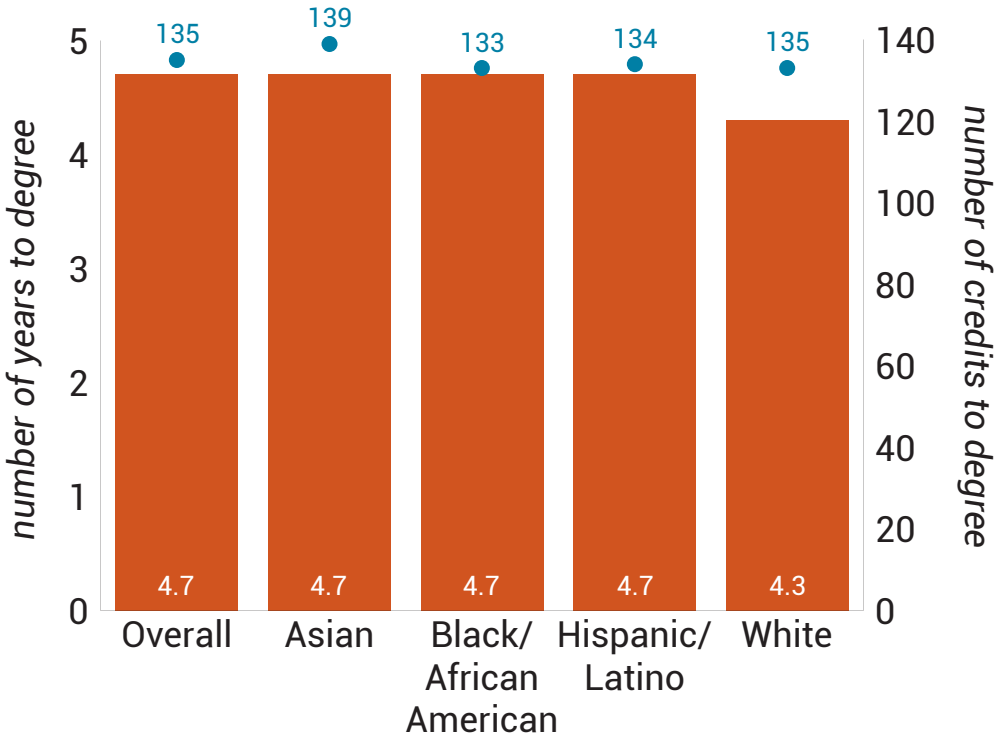
Demographics

The time and credits it takes to earn a bachelor's degree *can* vary across demographic characteristics such as gender, race/ethnicity, socio-economic status and age but national research on time to degree suggests that gender and race/ethnicity are actually not significant predictors.[6] Instead, factors such as socio-economic status and age have been more closely related to longer time and more credits to degree.[7] Only two of the demographic characteristics mentioned above, gender and race/ethnicity, are included in the data provided by CSU.

Consistent with national data, the CSU data shows small differences by gender and race/ethnicity. The median time to degree for women is 4.5 years and 4.7 years for men, and women tend to have slightly fewer credits upon graduation, 133 compared to 137 for men. These differences are even less pronounced in terms of race/ethnicity (Figure 2). While the median time to degree for Asian, Black and Latino students is about the same as the overall (4.7 years), the median time to degree for White students was quite a bit shorter: 4.3 years. White students completed about the same number of credits as Black and Latino students but do so in less time. Asian students had the highest median credits.

Figure 2: Credits to degree varies slightly more by race/ethnicity than does time.

Median Years & Credits to Degree, Bachelor's Degree Earners, 2011-12



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

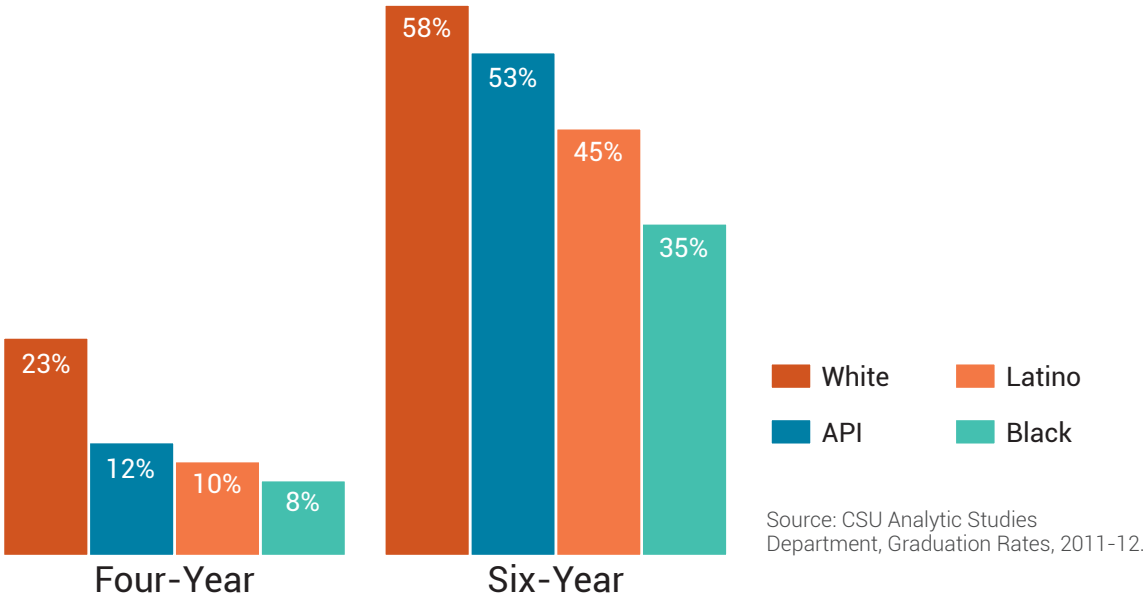
Graduation Rates versus Time to Degree

A common source of confusion is the difference between graduation rates and time to degree. Graduation rates look at a group of students who start at the same time and follow them into the future to see the proportion who graduate within a particular time frame (most commonly in four or six years). Time to degree is a measurement only for those who actually complete their degrees—it examines the students who graduate at a specific point in time and then counts backward to see when they began their academic careers. These nuanced differences make direct comparisons between time to degree and graduation rates difficult to make but they are still worth mentioning. So, while median *time to degree* at the CSU is 4.7 years, 0.7 calendar years more than the traditional four, four-year *graduation rates* are unacceptably low.

In terms of graduation rates, 16 percent of all first-time freshmen at the CSU receive a bachelor's degree within four years. Just over half receive a bachelor's degree within six years.[8] These statistics are troubling for three main reasons. First, a large number of students are not completing their college degrees—even after 10 years only 58 percent of the students who had entered the CSU system in 2002 had graduated.[9] Second, many of those who do earn a bachelor's degree take longer than four years to do so—and as research indicates, the longer one is enrolled in school, the odds that he/she will graduate is reduced significantly.[10] Third, graduation rates vary significantly by race/ethnicity—though none are acceptable (Figure 3). For example, within four years, the CSU graduates 23 percent of White, 12 percent of Asian Pacific Islander (API), 10 percent of Latino and 8 percent of Black students. When looking at a six-year timeline, the CSU graduates 58 percent of White, 53 percent of API, 45 percent of Latino, and 35 percent of Black students.

Figure 3: The CSU system graduates its students at unacceptably low rates.

Graduation Rates by Race/Ethnicity, 2011-12



Source: CSU Analytic Studies Department, Graduation Rates, 2011-12.

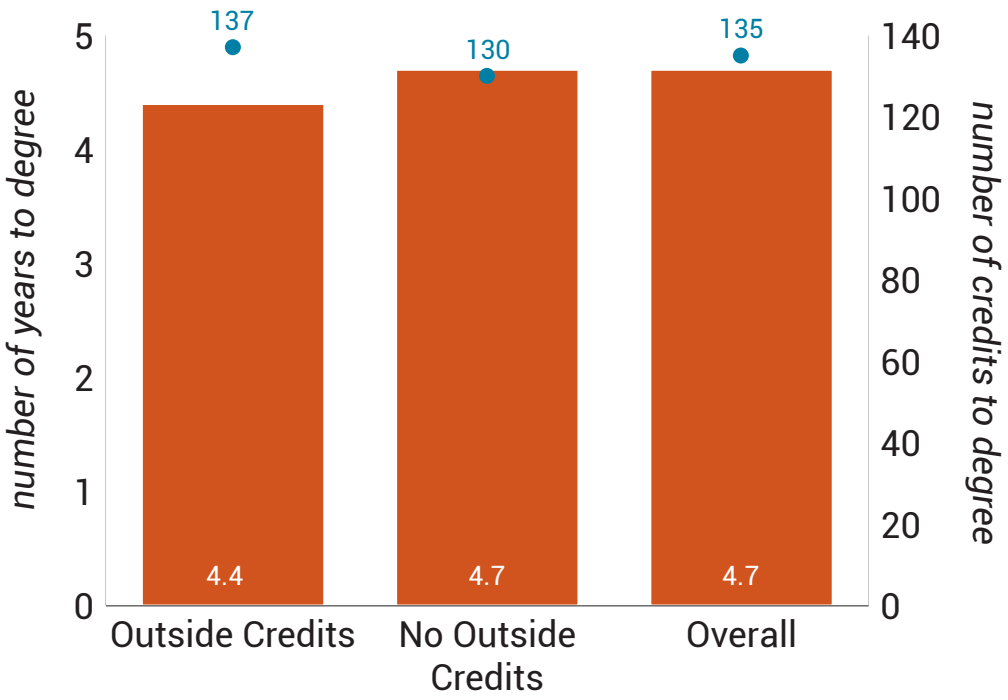
External Credits

Approximately 70 percent of degree completers had earned credits from outside the CSU system at some point in their college career.[11] This does not include students who transferred into a CSU institution from a community college, but instead measures credits that were earned from other institutions by students who began at CSU as first-time freshmen. These external credits also include any credits earned by students while they were in high school (such as through Advanced Placement or by taking college-level classes in high school) or while as a CSU student (for example, any credits students earned from taking a summer course at another institution such as a community college). As shown in Figure 4, students who earned credits from outside the CSU have a shorter time to degree (4.4 compared to 4.7 years) but more credits to degree than those students who did not earn outside credits—137 compared to 130 credits.

The following section examines possible reasons why students might be taking longer and earning additional credits to complete their degrees, including why students might be going outside the system to earn credits.

Figure 4: Students who also earn credits outside the CSU system have a shorter time to degree but more credits to degree than those students who did not earn outside credits.

Median Years & Credits to Degree, Bachelor's Degree Earners, 2011-12



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

What Might Cause Extended Time and Credits to Degree at California State Universities?

Due to a lack of California State University (CSU)-specific data it is difficult to offer explanations of direct causal links to extended time and credits to degree for CSU students. However, from existing research we know that many factors contribute to students taking increased time and credits to complete their degrees.

> ***"I am unable to get classes, and I feel so uneasy paying more money just so I can take classes I don't need, so that I can keep my full-time student status, so I can receive financial aid, student discounts, etc."***
>
> Source: UCLA Civil Rights Project. (2011). *The CSU Crisis and California's Future: Part I – Squeezed from All Sides*. Page 11.

Reduced capacity and course supply. CSU is operating at financial and physical capacity. This is true at the institutional, program and course levels.[12] This is partially a budgetary issue: state funding to the CSU system was cut by almost one-third, from a high of $2.97 billion in 2007-08 to a low of $2.0 billion in 2011-12.[13] As a result of the financial constraints, CSU campuses denied admission to more than 22,000 eligible California residents in the fall of 2012, according to the CSU Budget Office.[14] In addition, the CSU reduced the selection of course offerings for continuing students.[15]

When course offerings do not adequately meet student demand, students are unable to register for courses that are full, take fewer credits than they need, take a break from enrolling for a semester (known as "stopping out"), or enroll in available alternatives that are not a good fit for their intended degrees but help to maintain aid eligibility (see Financial Aid section below).[16] As a result, they experience longer time and credits to degree. A 2010 study conducted by the University of California's Civil Rights Project found that two-thirds of California State University Northridge students were not able to register for courses they need to progress toward their degrees and 77 percent said that the inability to enroll in critical courses is delaying their graduation.[17] Because courses, programs and university campuses are at maximum capacity, students who take longer than the normal time to earn a degree may also prevent universities from enrolling more students.[18]

Enrollment intensity. Of course, the number of credits a student enrolls in per semester has a direct impact on the time it takes to complete a degree—the more credits a student takes per semester, presumably, the fewer number of years he/she will be enrolled. Although more than 80 percent of CSU undergraduates enroll in 12 or more credits a semester (which is still considered full-time),[19] that does not necessarily mean they are consistently enrolling in, or completing, enough credits to finish their degrees in four years, as demonstrated by the median 4.7 years to degree.[20] If a student enrolls in less than 15 credits per semester (all of which must be applicable toward the degree) or takes time off, then he or she will take longer than the expected four years to earn a bachelor's degree that requires 120 credits. The issue of enrollment intensity is directly related to the issues of reduced capacity mentioned above as well as the need to work, mentioned below.

Financial aid policies. Many financial aid programs (including Pell and Cal Grants) reach their maximum award level at 12 credits a term and do not provide additional support or incentive for students to take 15 credits. This does not *directly* impact affordability at the CSU system because it charges the same tuition rate for 15 as for 12 credits. But other costs—books, supplies, transportation, and time away from work—can increase when students take 15 credits, with no corresponding increase in grant aid. So low-income students who are aware that they must take at least 15 credits each semester but are trying to keep these costs down, may take 12 credits,[21] which puts them on a five-year rather than a four-year track to graduation, further increasing costs, including another year or more of tuition. Unfortunately, many students are not aware that they must take and successfully complete 15 credits each semester to graduate on time due to financial aid policies that indicate 12 credits per semester is "full-time" and because of insufficient student supports (below).

> ***"I had to take a break from school...[I] didn't have enough money and my parents can't help because their own jobs are at stake."***
>
> Source: UCLA Civil Rights Project. (2011). *The CSU Crisis and California's Future: Part I – Squeezed from All Sides*. Page 8.

Need for employment. Attending a CSU is more expensive today because fees and tuition have grown substantially and middle- and low-income students are shouldering a greater burden of this cost than they did in the past. While net tuition and fees made up 19 percent of overall funding at CSU in 1998-99, under the Governor's proposed 2014-15 budget they will make up 44.5 percent.[22] As a result, more students may need to work—and work more hours—in order to pay for school.[23] CSU students are more

likely to work today than their peers from ten years ago.[24] Research has demonstrated that working behavior is a significant contributor to delayed time to degree.[25] Time working is time spent away from class and studying. Students are forced to "choose" between either working to earn money or taking additional courses to move along in their degree programs.

Pre-college level courses. CSU policy requires incoming freshmen demonstrate proficiency in math and English before they can enroll in college-level courses. Proficiency is based on performance on standardized tests or on the CSU placement tests.[26] [27] Students are required to take pre-college level courses before they can begin college-level coursework in that subject—and they must pass the courses within one year or risk being "disenrolled."[28] Credits earned in these courses are not counted toward a degree, yet take time for students to complete and add to the cost of tuition and fees.

Complete College America reports that 60 percent of entering CSU freshmen need to take pre-college level coursework.[29] [30] Enrollment in pre-college level courses presents several challenges. First, enrolling in pre-college level courses extends both time and credits to degree. Second, students who enroll in pre-college level courses are less likely to complete their degrees than those who do not.[31] One study conducted at California State University San Bernardino found a positive correlation with enrollment in pre-college level courses and extended time to degree[32] and in another study, six-year graduation rates among those who required pre-college level course enrollment were about 10 percentage points lower than for those who did not.[33]

Student supports. Attaining a college degree can be complicated and many students require guidance navigating the process. Students may need assistance with determining a clear degree plan, knowing the number of required credits to complete each semester in order to graduate in a timely manner and require other supports that allow them to successfully complete their degrees.[34] The median student-counselor ratio among the CSU campuses is 2,691 to 1—at California State University Los Angeles the ratio is 7,900 to 1—significantly above the recommended ratio of 1,500 to 1.[35] Limited counseling can leave students feeling alone without a clear pathway or an understanding of degree requirements and can lead them to take extraneous courses.[36]

Why is 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 entering 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 tuition, fees and purchase textbooks, but they also give up the opportunity to earn wages by spending additional time on schooling. The longer students are enrolled, the more indirect living expenses they will incur and they will spend less time in the workforce earning the wage premium associated with a college degree. 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 years[37] and Cal Grants for eight semesters or four years.[38]

Tuition and fees at the CSU campuses are charged at a flat rate depending upon whether the student enrolls in up to six credits or more than six credits.[39] That means tuition costs of approximately $5,500 for an academic year is the same for 9, 12, and 15 credits per semester. As a result, there is a strong incentive, that students may not be aware of, to maximize the number of credits per semester. By taking fewer credits in each period, and extending the number of semesters they are enrolled, students are leaving money on the table and substantially increasing their tuition expenses.

Tuition expenses, however, are only a portion of the total direct price of education. The other portion consists of items such as books, supplies, room and board, transportation, food and miscellaneous personal expenses. These **living expenses make up the largest portion—more than 50 percent—of CSU students' budgets**.[40] These costs are also extended when students are not able to finish their studies in a timely fashion.

There is another, indirect, cost to students who enroll in extended periods of higher education: foregone wages. These are the wages students forego while they are attending college. Also included in foregone wages is the wage benefit or premium—additional income that a student does not earn because he/she has yet to obtain a college degree. This money adds up.

Californians with bachelor's degrees earn $1.34 million more over their lifetime than someone with a high school diploma only.[41]

Table 1 provides an example of the cost of extended time to degree at California State University, Long Beach, for a student whose family income is between $48,000 and $75,000 (the middle income level).[42] Every additional year of enrollment in college increases the total cost by more than $26,000 in tuition, fees, books, and living expenses, as well as more than $22,000 in lost lifetime wages. Even if a student is not enrolled for the entire time it takes him to earn his bachelor's degree, he will pay in terms of lost wages. For example, a student who takes six years to earn a bachelor's degree will spend an additional $58,000 more on tuition, fees, books and other expenses, and will earn $52,900 less, over his lifetime, than someone who graduated in four years. As a result of these additional two years, this student will incur $110,900 in extra expenses and lost wages.

Table 1: The cost of extended time to degree

For example, at California State University, Long Beach

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 a baccalaureate degree…	…this amount less than graduating on time	Combination of extra educational expense and lost wages
…in 4 years	$72,600	—	$1,348,600	—	—
…in 5 years	$99,300	$26,700	$1,325,800	($22,800)	$49,500
…in 6 years	$130,600	$58,000	$1,295,700	($52,900)	$110,900
…in 7 years	$167,400	$94,800	$1,285,300	($90,300)	$185,100

Notes: 1) Estimates are for an 18 year old student 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 tuition, 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).[43]

Higher Costs to California

Just as increased time to degree has implications for students and their families, excess credits have implications for the state. States benefit immensely from an educated citizenry—their higher earnings produce more tax revenue. When students take longer to earn their degrees the state is losing out on these additional monies. Bachelor's degree holders return $108,000 over the course of their lifetime to the state of California in the form of tax revenue.[44] This money also adds up given the tens of thousands of students who are taking longer than the traditional four years to complete their baccalaureate degrees.

On average, California spends more tax revenue per full-time equivalent student than most other states.[45] Therefore, the more credits students take, the more it costs the state. Table 2 provides estimates of the value of reducing credits to degree in terms of total costs and expanded student capacity at CSU. Even a marginal reduction in the number of excess credits could increase both physical and financial capacity. Reducing average credits to degree by one percent (the equivalent of one credit), from 135 to 134, frees up $20 million in state expenditures at CSU which could potentially provide enrollment to more than 3,200 additional full-time students. A 10 percent reduction in credits would have bachelor's degree graduates completing with 121 credits (close to the original 120 required for a bachelor's degree) and could provide capacity for 45,000 additional full-time spots.[46] That is almost the equivalent to the total undergraduate enrollment at both the CSU Los Angeles and Long Beach campuses combined.

Table 2: The value of reducing credits to degree

If average credits to degree at CSU campuses were reduced by...

	1%	5%	10%
Average Credits	134	128	121
Student Savings	$12,000,000	$84,000,000	$168,000,000
Reinvestment in CSU	$20,000,000	$140,000,000	$280,000,000
Additional Space for Full-Time Students	3,204	22,428	44,856

Source: State Cost Model Tool.[47]

Recommendations for Reducing Time and Credits to Bachelor's Degrees at California State University

The issue of time and credits to degree is nuanced and complex. Implementing one or two policies and solutions will not have a significant impact on the reduction of time to degree. Instead, California and the California State University (CSU) system must adopt a comprehensive and holistic approach that keeps the needs of students and our workforce in mind. The following steps should be taken to further reduce time, credits and cost to degree in California.

1. Ensure the effective and efficient use of state funding, with the aim of improving timely degree completion.

Limited course offerings prevent students from enrolling in the classes they need to adequately progress in their degree programs. State funding and university course offerings should work to ensure that students can access the courses they need to graduate in a timely fashion. Important steps to meeting this goal include:

- **Fund universities for both enrollment and success.** Increase funding for higher education to ensure all students have a seat in college. Ensure that this new funding creates incentives for CSU campuses to increase graduation and completion rates for all students, particularly for underrepresented minority groups. For example, in his 2014-15 Budget Proposal, Governor Brown included an innovation fund targeting improvements to time to completion and increasing the number of students who transfer from CCC to our universities, and the number of baccalaureate degrees awarded. This is a good example of how funding could have helped incentivize and improve outcomes desired by the state.

- **Match courses to student needs.** CSU should work to ensure that there is enough capacity in high-demand courses to satisfy student need and ensure that lack of course availability is not an impediment to timely degree completion.

2. Encourage 15-credit enrollment and academic progress for students.

Enrollment intensity is one of the most significant predictors of whether a student will complete a degree on time. In order for students to complete a bachelor's degree in 4 years (120 credits), they need to average 15 credits per term. Students need to be encouraged and supported to attend school full-time (15 credits). California State University can do this by adopting policies aimed to:

- **Counsel students on what true full-time enrollment (15 credits) is and what they need to do in order to graduate on time.**[48] Show students that a full course load is affordable by informing them of financial aid opportunities and providing timeline scenarios that compare how short-term costs could result in long-term benefits by using tools such as the Student Cost Model. Explain to students that when they enroll in 12 credits instead of 15 at the CSU they are not taking full advantage of their tuition expenditures.

- **Provide employment opportunities that are convenient and skill-based.** Most students must work to help support themselves and their families. Providing increased work-study opportunities either on campus or at another organization will help students feel more connected to campus, facilitate skill-based learning and build experience for future career readiness.[49]

- **Expand student supports at each California State University campus.** Reduce the student-counselor ratio so that students can have access to the advising and guidance they need. Provide targeted student supports that extend past the first year to help students navigate complex degree pathways. Specific campuses are already implementing excellent programs that should be offered at every campus, such as learning communities, mentoring programs and degree progress tracking.[50]

- **Track time to degree data** by program of study and make that information available to departments, faculty, and students. Additionally, campuses should identify any trends/gaps and develop strategies to reduce excess time and credits to degree.

3. Improve college readiness and encourage clear pathways to degree at each California State University campus.

- **Expand dual enrollment options** that allow high school students to earn credits applicable toward their degree (such as in Florida, where common course numbering system means that dual enrollment courses earned at community colleges transfer automatically to four year universities[51]).

- **Coordinate Early Assessment with high schools to improve college readiness.** Strengthen and expand early assessment of high school students and coordinate with high school faculty on college preparation expectations.

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

Access to time to degree information is important to better understand the impacts of the problem on California's students, universities, 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:

- **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 campus websites. Lack of data leads to limited information and analyses.

- **Authorize an independent statewide 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.

- **Prioritize the study of the racial/ethnic disparity in graduation rates** and create strategies to close the gaps. CSU's Graduation Initiative takes first steps in doing this by acknowledging this gap and aiming to cut in half the racial attainment gap.[52]

- **Create and maintain a longitudinal data system.** Such a tracking system would contain information about not only student education and progress, but also outcomes after college, including entry into graduate school or the workforce. This will facilitate understanding of students' educational progress and will help California's four-year universities better address the state's and students' needs.

Conclusion

The California State University (CSU) system is the largest four-year system of higher education in the country and critical to developing our state's workforce. The 23 campuses that make up the system are the source of almost half the bachelor's degrees awarded each year in California.[53] However, students at CSU are taking an extended time to graduate, if they do so at all.

The issue of time and cost to degree for students is a complicated one made even more so due to the lack of publicly available data. However, we do know that students are taking longer and graduating with more credits than necessary to complete their degrees.

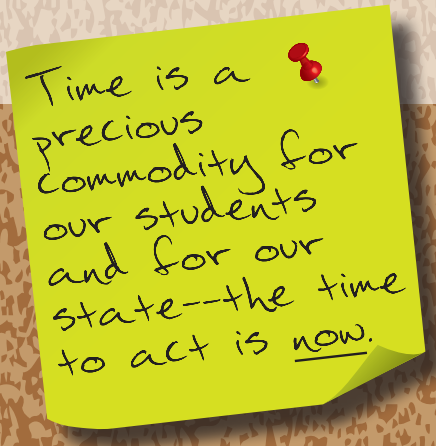
Although there has been some progress in minimizing time and cost to degree within the California State University system, more must be done. Extending the time to completing degrees is costly for students in terms of out-of-pocket expenses and foregone wages.

In times of constrained budgets for the state and for students, controlling time and cost to degree is critically important. Reducing time to degree, even modestly, could save students and the state millions of dollars, ease financial and physical constraints at many California colleges and universities and allow thousands more students to enroll in the CSU system.

Fortunately, there are steps that can be taken to help reduce the burden of excess time and credits to degree. These include:

- Ensure the effective and efficient use of state funding, with the aim of improving timely degree completion;
- Encourage 15-credit enrollment and academic progress for students;
- Improve college readiness and encourage clear pathways to degree at each California State University campus; and
- Develop and make available more and better information on time and credits to degree.

As the stewards of the state interest, policymakers need to take steps to ensure that students are able to complete their degrees in a timely manner. Most importantly, our college leaders and policymakers need to make sure that structural barriers are not impeding timely student progress to degree. It is a statewide imperative to ensure that California's students have access to the courses and supports they need to complete their degrees and to enter the workforce.



Appendix A

What Does This Report Do?

This report contains information on time and credits to degree for bachelor's degree earners who started as freshmen at CSU institutions. The data, unless otherwise noted, was provided by the CSU Office of the Chancellor and included the following information for students who received a bachelor's degree in 1999-00, 2005-06 and 2011-12:

- Gender
- Race
- Beginning term
- Number of credits completed at CSU institutions
- Number of credits completed outside the CSU system
- Graduation term

For the analysis, all quarter credits were converted to semester credits based on guidance from CSU staff. The California State University System includes universities with both calendar systems.

The two measures of interest for this report are *years to degree* and *credits to degree*:

- *Years to degree* is the time, in terms of calendar years, that elapsed from when a student first enrolled at a CSU institution until that student received a bachelor's 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 hour to degree* is the cumulative number of credits completed by a student who has earned a bachelor's degree. The number includes credits earned at CSU institutions as well as credits earned outside the system. It also includes any developmental credits a student earned.

Median years and credits to degree were calculated for all students combined as well as by gender, race and whether a student completed any credits outside the CSU system. This report uses median years and credits to degree rather than mean in order to avoid data being skewed by outliers.

What This Report Does Not Tell Us

This report provides valuable information, but does have limitations due to the lack of available data. Specifically, this report does not:

- Include students who transferred into a CSU institution;

- Account for time that students might not have been enrolled at CSU institutions;

- Have detailed information about different degree programs;

- Contain information about student behavior, such as which courses students took, when students declared their major or if students changed their major of choice; or

- Have information about credits students attempted, but did not earn.

Questions for Further Research

This report helps to shed light on the number of years that students who actually complete a baccalaureate degree take and the number of credits they 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:

- **The impact of credits attempted but not earned** (dropping, withdrawal, failure) on time to degree. This analysis was unable to fully explore the effects of credits attempted but not earned on time to degree due to lack of data available to us. A thorough investigation of this issue could help determine where interventions might be best placed to minimize the impact of course drops, withdrawals and failures.

- **More detailed analysis time and credits to degree.** This analysis was intended to give an overview of time, credits and cost to degree at California's public four-year universities. However, there are many ways that future analyses should be more detailed, particularly by program and campus. With this information, policy makers could ask questions that would be directed to particular campuses.

- **Entrance requirements.** In California, entrance requirements to the four-year systems may force some students to start at community colleges, even though they might complete their studies more quickly and reliably if they entered directly into the four-year sector. How much could time to degree be improved if a larger proportion of students were given direct access to the four-year sector?

- **Swirl.** Students are more mobile than they have ever been in the past, which means they will often attend multiple college and universities at the same time. This is known as "swirl." Additional data on students' enrollment behaviors could help to illuminate where students are enrolling and the effect of multiple enrollments on time to degree.

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 State University and calls for decreasing time to degree, which would in turn decrease costs and increase capacity at California's public colleges and universities.

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.[54] 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).[55]

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

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[2] Complete College America. (2011). *Time is the Enemy*. Retrieved from http://completecollege.org/docs/Time_Is_the_Enemy_Summary.pdf.

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[4] 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/.

[5] Title 5. Education, Division 5. Board of Trustees of the California State Universities, Chapter 1. California State University, Subchapter 2. Educational Program, Article 6. Undergraduate Degrees section 40508. The Bachelor's Degree: Total Units. Retrieved from http://www.calstate.edu/app/policies/Title-5-S-40508-Bac-Total-Units.pdf.

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[43] This report is accompanied by the *Student Cost Tool* (for more information on the Student Cost Tool, please refer to *Tools for Estimating Time and Cost to Degree in California*), which estimates the cost to degree completion, including opportunity cost and the resultant net benefit. The Students Cost Tool can be accessed from www.collegecampaign.org.

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[47] 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 19 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.

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[55] Note that, without institution-specific earnings data, the lifetime earnings are estimated to be the same for all bachelor's degree recipients, regardless of the institution attended.

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 CSU. A report on the CCC can be found can be found at the Campaign for College Opportunity's website at http://www.collegecampaign.org/resource-library/our-publications/

ACKNOWLEDGMENTS

Allison Bell, Associate with HCM Strategists, and Nadia Valliani, Research & Policy Analyst with the Campaign for College Opportunity, were the principal authors of this report. This report was developed with significant contributions from Michele Siqueiros and Audrey Dow of the Campaign for College Opportunity, and with the assistance of Jessica Hunt and Kristin Conklin of HCM Strategists and Jessie Ryan with the Campaign for College Opportunity.

Nate Johnson, Takeshi Yanaguira and Leonard Reidy of Postsecondary Analytics contributed the analytics and provided support for initial drafts of the report.

We thank them all for their significant contributions.

We would also like to thank Philip Garcia and Susan Lee of the California State University System for providing us with data and other information critical to the report's thoroughness and accuracy.

Our expert reviewers provided invaluable comments and feedback on this report and for that, we are grateful.

A special thanks to our principal funders for this project: the Kresge Foundation, the Lumina Foundation, and the College Access Foundation of California. Their commitment and dedication to increasing opportunity for all Americans in higher education is to be admired. We would also like to thank the additional funders who make our work possible including: the California Education Policy Fund, the California Wellness Foundation, the Working Poor Families Project and the Evelyn & Walter Haas Jr. Fund.

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.

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