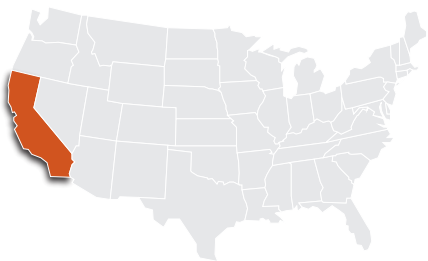
THE REAL COST OF COLLEGE

Tools for Estimating Time and Cost to Degree in California

The Campaign for College Opportunity

JULY 2014

The State of Higher Education in California



Introduction

Taking extra time and credits to earn a degree is costly and makes college less affordable. Students, colleges, and the state pay a high price for the excess time and credits it takes for a student to earn a degree.

The longer students are enrolled in college, the more they will pay for tuition, fees, living expenses, books, and other education-related expenses. Students also forgo potential wages they could have been earning because they are still 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.

Just as excess credits have implications for students and their families, there are also implications for the state of California. The state benefits 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. Moreover, on average, California spends more tax revenue per full-time equivalent student than most other states. Therefore, the more credits students take, the more it costs the state. And 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 reports, *The Real Cost of College: Time & Credits to Degree at California Community Colleges and California State University* explore time and credits to degree and associated costs of each for students at California's public colleges and universities and the state of California. Students take a median of 4.1 years to earn an associate degree at California's community colleges and 4.7 years to earn a baccalaureate degree at the California State University system, longer than the traditional two and four years, respectively. Each report calls for reducing the number of years it takes for students to earn a degree, which would in turn reduce costs and increase both financial and operational capacity.

Purpose of the Tools

Three web-based tools were created by the consulting firm Postsecondary Analytics, LLC and designed by Codehorts, LLC to accompany these reports. They can be found at http://RealCostOfCollegeInCA.org/. These interactive tools illustrate the impact of different variables on time to degree and the potential benefits to students, colleges and universities, and the state of California of reducing both time and credits to degree. These tools should be used by students and their families, legislators, college and university decision-makers, and higher education researchers and advocates.

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 they attend, income-level, age at entry, time to degree and other inputs.

3. The **State Cost Tool** estimates the cost of extended credits to degree for the state and the number of students that could be served as a result of these cost savings.

The ultimate goal and purpose of the tools is two-fold: (1) to show students and their families the various factors that affect time to degree and how that time translates to actual costs; and (2) to show colleges, universities, and the state of California that reducing the credits that students graduate with can reap enormous benefits.

What to Keep in Mind

Before we introduce the tools and how to use them we would like to offer a few caveats.

First, we know many students require time to decide what they want to study but we also realize the scarcity of precious resources: time and money. While college should be a place for students to be exposed to new ideas and subjects, students should also be advised and supported to progress through their academic careers quickly and successfully so that they can go on to pursue their life's passions.

Second, these tools have been developed under several assumptions. Where possible, we try to clarify these assumptions but it is important to note that these results and calculations are estimates (for a full methodology, please see Appendix A). For example, not everyone earns the same amount over his/her lifetime. And, just because you have a college degree does not mean that you will automatically earn more than those with only a high school diploma.

Ultimately, our aim is that these tools will trigger ideas and thoughts in the minds of students, college and university leaders, and legislators about how extended time to degree results in serious costs. We encourage you to try different scenarios within the tools to see the effect of different factors on time to degree results in varied costs to both students and the state. We hope these tools incite discussions around the benefits of taking and completing more credits per semester in order to finish in fewer years compared to attending school part-time and progressing at a slower rate. However, we also know that this option simply cannot be a reality for several students, particularly financially independent or low-income students. Consequently, we hope these tools and the accompanying reports inform productive conversations about how we can support our students so they can do better—we not only owe it to them as residents of this great state, but also to ourselves as these students will make up our future workforce.

For the vast majority of students who attend higher education, getting in and out with a degree in a timely fashion so that they can get a good, well-paying, satisfying job in order to support themselves and their families can be the pathway to a better life. We hope that these tools are used with this intent in mind.

Technical Details

If you would like to go back to the previous page, please do not use the back button on your web browser. Instead, please use the "back" buttons provided at the bottom of the series of questions. If you would like to start over completely, please hit the refresh button on your web browser—however, you will have the opportunity to change your answers at the end of the exercise once you view your results. If you ever want to quickly move to the top of the webpage, click on the little icon that contains the symbol "^" in a small grey square on the lower right-hand side of the page. Finally, several questions have a small blue question mark icon that provides some guidance if you are unsure of the question's meaning—simply hover your cursor over the icon for additional clarification.

Let's get started.

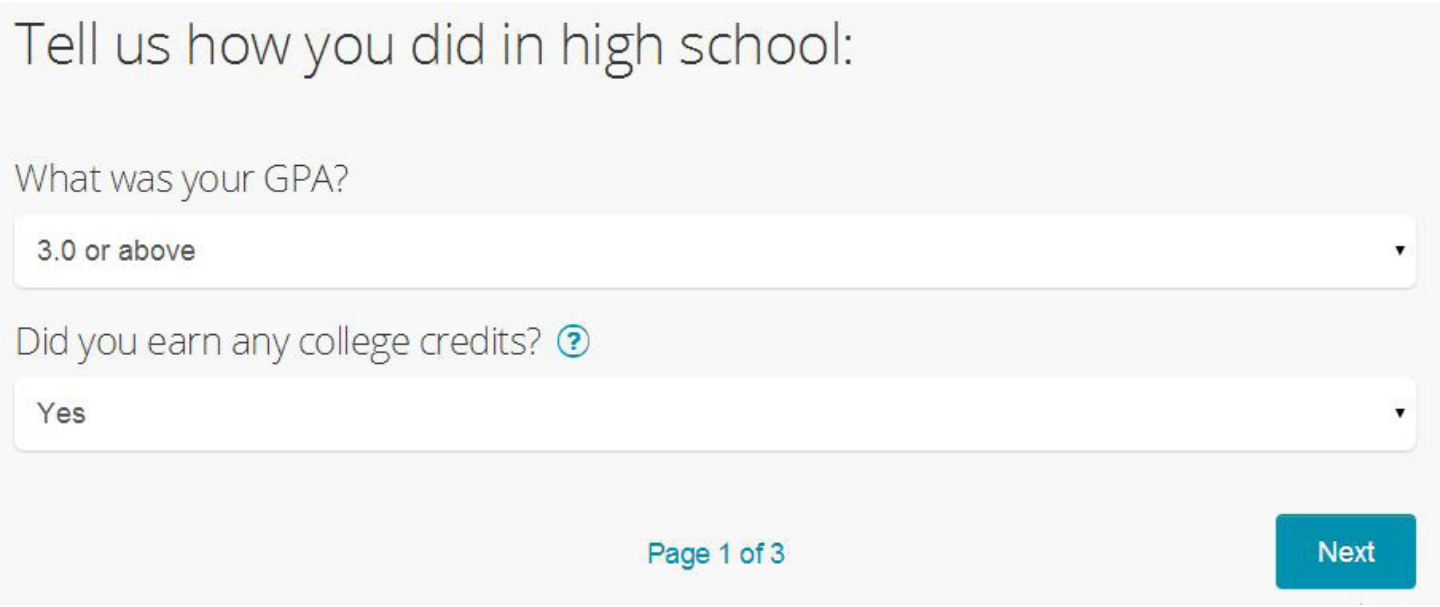
The Time to Degree Tool

Description of the Tool

This time to degree tool will help to answer the question of how long it will take someone to graduate with a bachelor's degree. The tool shows how factors before and through college can affect the number of years it takes students to graduate. The model includes three main groups of questions pertaining to various student characteristics: 1) academic performance during high school, 2) academic path during college and 3) demographic and economic characteristics during college.

How to Use This Tool

Step 1: Select information for how you performed in high school. First, tell us about your GPA: did you get a 3.0 or above (mostly As and Bs) or did you get less than a 3.0? Next, did you earn any college credits while you were in high school? If you hover over the helpful blue question mark at the end of the question you will see that this question is asking if you earned college credit from AP courses or by completing community college courses while you were still enrolled in high school. Once you are satisfied with your answers please click "Next."



Step 2: Now tell us how you plan to do in college. This next set of questions might be difficult to answer if you have not already begun your college career, but estimate how you *think* you might do considering your academic performance in high school. First, what do you think will be the average number of credits you will take per academic year? To earn a bachelor's degree in four years you must take and complete at least 15 credits per semester (the equivalent of about 4 or 5 courses), or 30 credits per year. For purposes of receiving financial aid, 12 credits per semester is also considered full-time enrollment. However, taking fewer than 15 credits per semester will most likely result in being enrolled in school for a longer period of time.

Second, how many pre-college level (also known as remedial, developmental, or basic skills) math and English courses will you take in college? Of course, this might be difficult to predict, but almost 75 percent of entering California Community College students and 60 percent of California State University students enroll in pre-college level coursework. In order to answer this question it might be helpful to consider your academic performance in or the number of years you enrolled in

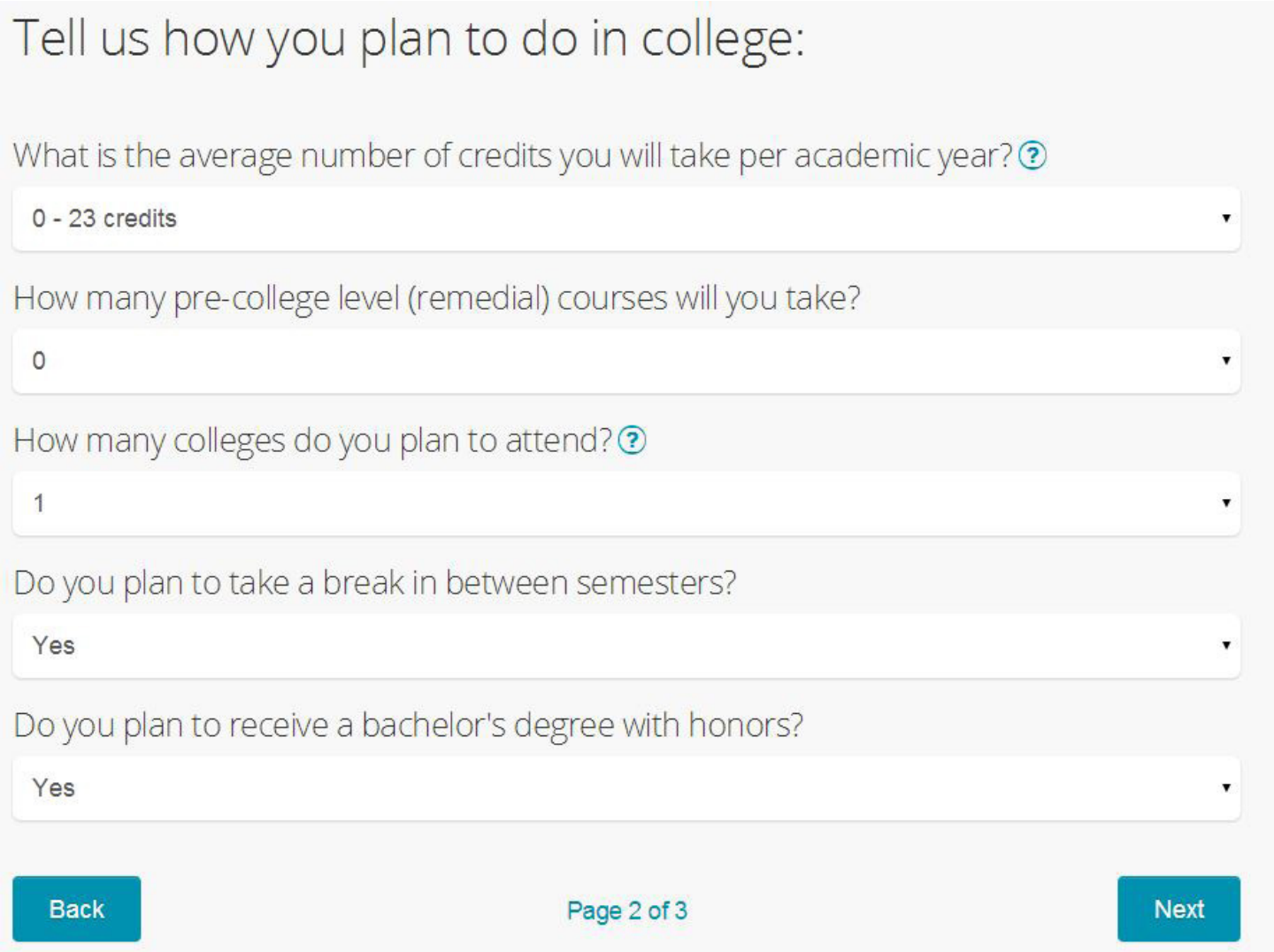
these courses while still in high school—if you consistently did well in math and English then it is possible that you would not need to take pre-college level courses.

Third, how many colleges do you plan to attend? If you plan to begin at a community college and then transfer to a four-year university then select "2." If you plan on enrolling directly into a four-year university then simply select "1." Sometimes students attend their four-year university during the fall and spring semesters but enroll in community college for summer or winter terms. These additional colleges you attend should be counted.

Fourth, do you plan to take a break in between semesters? While it is not recommended, sometimes students take breaks from their studies to focus on taking care of their families, working to earn money, or because they cannot get the classes they need. If you think you might have to take a break even once during your undergraduate career, please select "Yes." Otherwise, select "No."

Fifth, do you plan to receive a bachelor's degrees with honors? If you are not sure, select which you would *like* to do, you can always chance your scenario at the end to see how it affects your time to degree.

When you have answered all the questions, please click "Next" to move to the final set of questions.



Step 3: Now we would like to learn a little bit more about you. We understand that the answers to these questions might change, but select the ones that are currently true. First, do you plan to spend the majority of your time while you are in school going to classes and studying or working? If you will spend most of your time in class and in the library, please select "Student." If you think you might have to spend more hours at work than on your academics, please select "Employee."

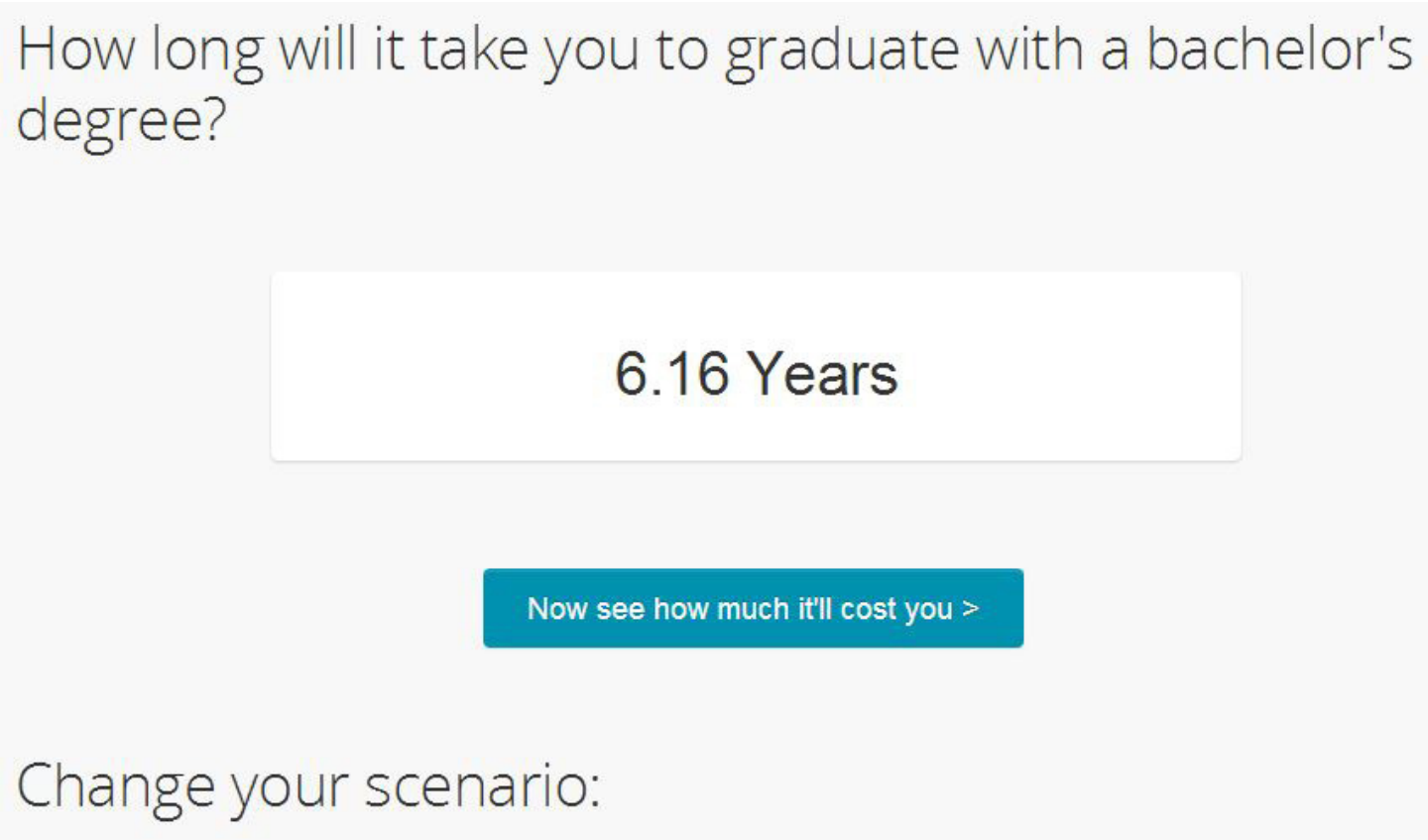
Next, are you currently married or do you have dependents, such as children? If so, please select "Yes." If you are unmarried or without children please select "No."

Third, please tell us the range of your household income. If you are unmarried and are still mostly supported by your parents or legal guardian then this would be the amount that they make. However, if you are married, have children, or are supporting yourself, then this would be the amount that you make.

Fourth, please tell us about your monthly rent or mortgage. If you live at home with your family and do not pay rent then please select "Less than $500."

Finally, click "Next" to view your results.

Step 4: View your results. This page provides the estimated number of years it will take you to graduate with a bachelor's degree as a result of your answers. Here you can click on the "Now see how much it'll cost you >" button to see how this time may or may not translate to higher costs for you and your family. But, before you do that, try playing with the tool to try different "what if" scenarios. For example, what if you took more or fewer credits, how would that change your time to degree? What if you attend multiple colleges and universities? What if you changed your marital status or income? What would you need to do in order to graduate in four years? Which answers result in the longest time to degree? Once you have finished viewing the different scenarios, click on the "Now see how much it'll cost you >" button to go to the next tool, the Student Cost Tool.



The Student Cost Tool

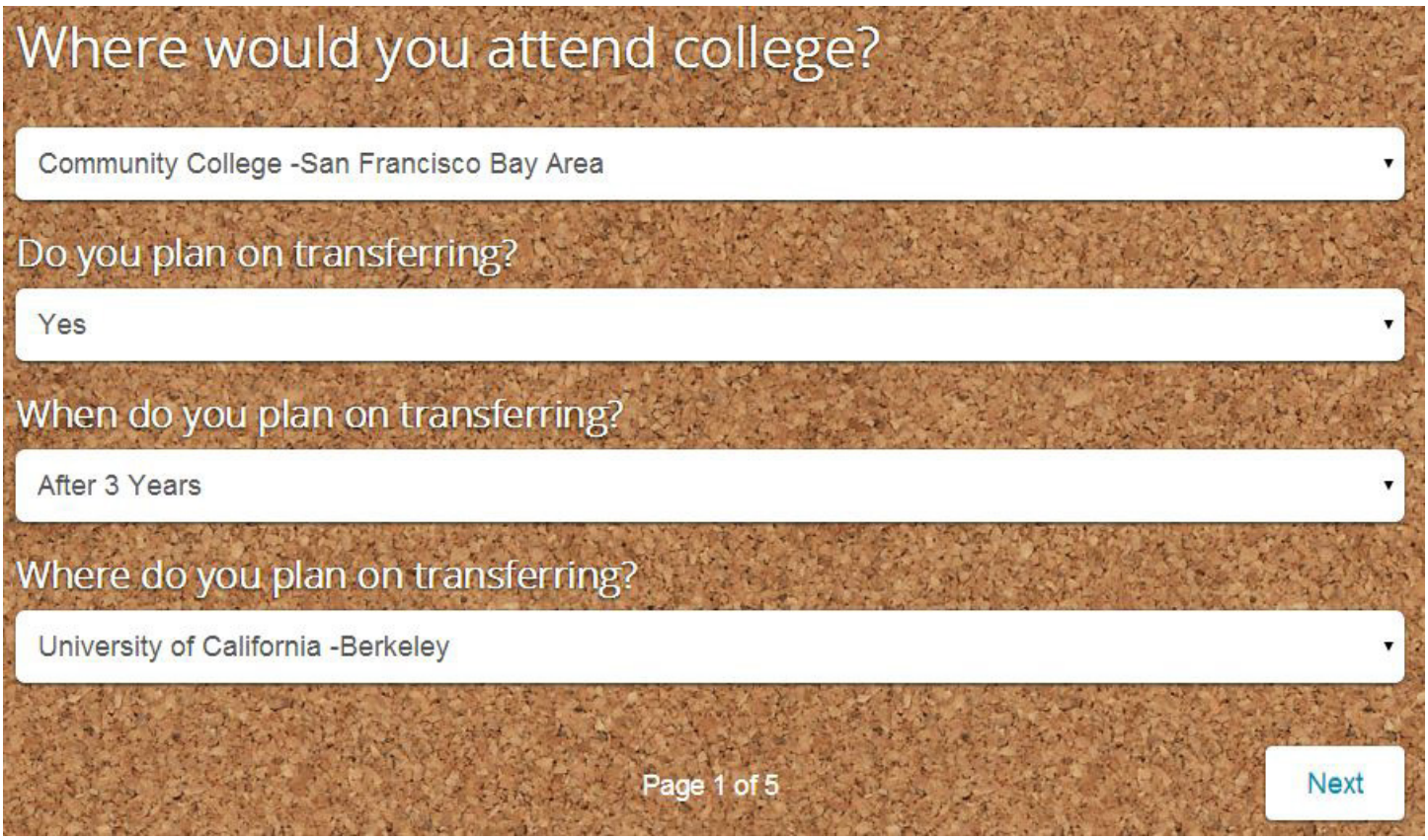
Description of the Tool

This Student Cost tool will help to answer the question of what the real cost of college is for students, beyond tuition and fees, based on how long it takes to graduate. This tool also estimates the return on investment of a college degree, based on a student's college or university attended, level of income, enrollment intensity (full-time vs. part-time), years to degree, employment intensity during college, and age-at-entry. The tool prompts the user to select a value for each question, which will return different net earnings resulting from a college degree as well as the return on investment of a college education. Just as a reminder, this tool pertains to California's public colleges and universities only.

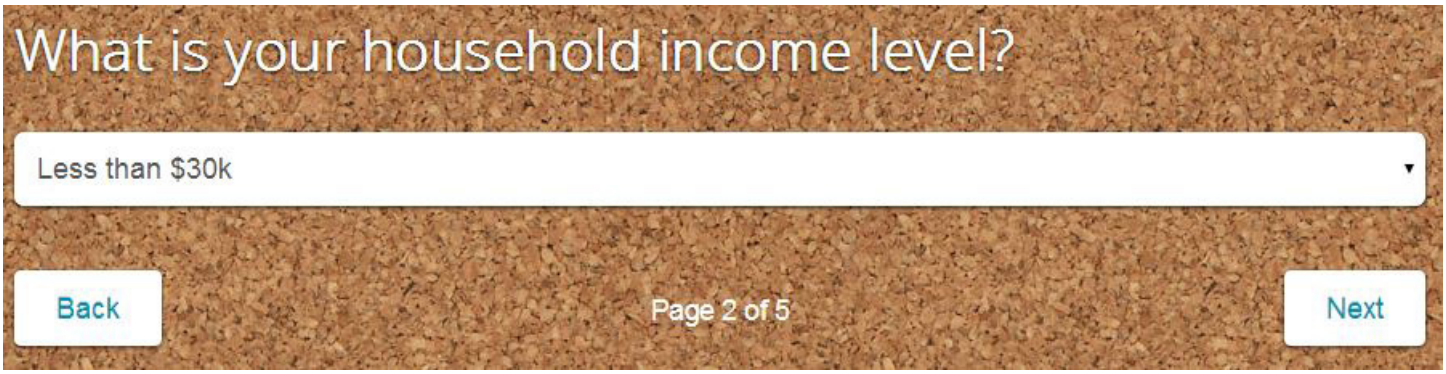
How to Use This Tool

Step 1: Tell us where you would like to enroll in college: a University of California (UC), a California State University (CSU), or a California Community College (CCC). If you select a UC or a CSU campus please click the "Next" button. If you plan to enroll first in a community college please select one within a particular region of the state. If you are unsure which region a particular community college is located in, please refer to Appendix B.

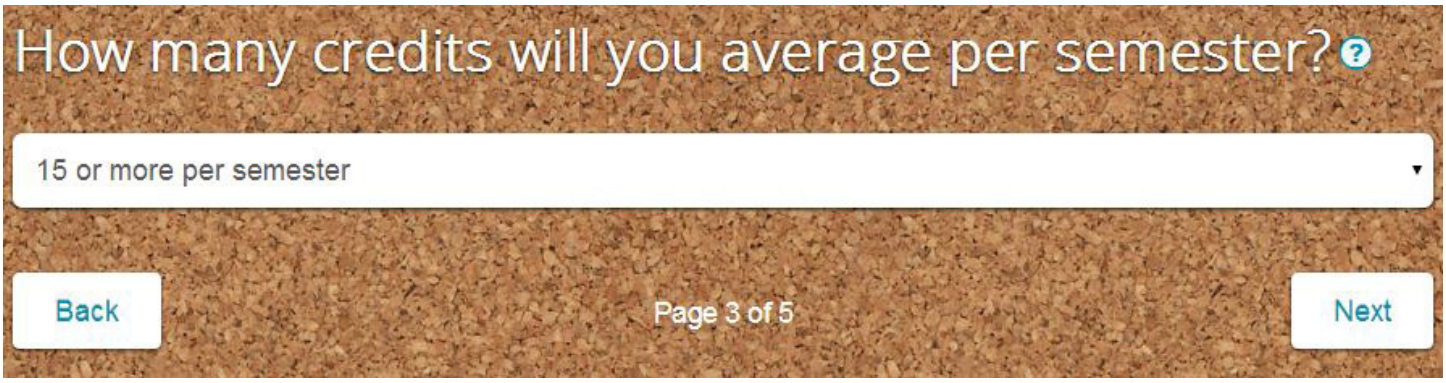
If you select a community college, a second question will populate asking if you plan to transfer to a four-year university. If you do not, then please select "No." If you do plan on transferring you will then be asked a few additional questions such as how long will it take you to transfer and the university to which you plan to transfer. After you are satisfied with your selections please click "Next."



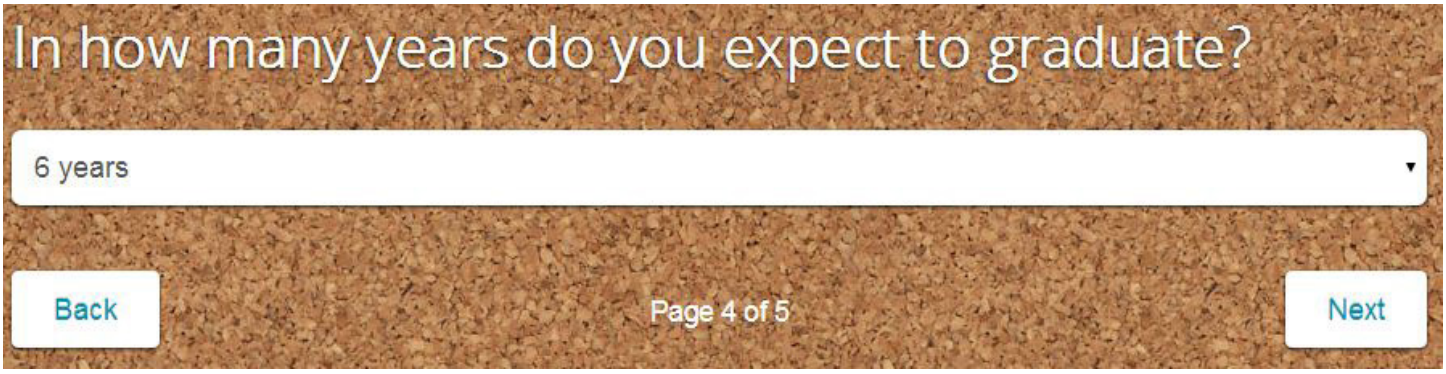
Step 2: Choose your household income level. If you are unmarried and are still mostly supported by your parents or legal guardian then this would be the amount that they make. However, if you are married, have children, or are supporting yourself, then this would be the amount that *you* and your spouse, if applicable, makes.



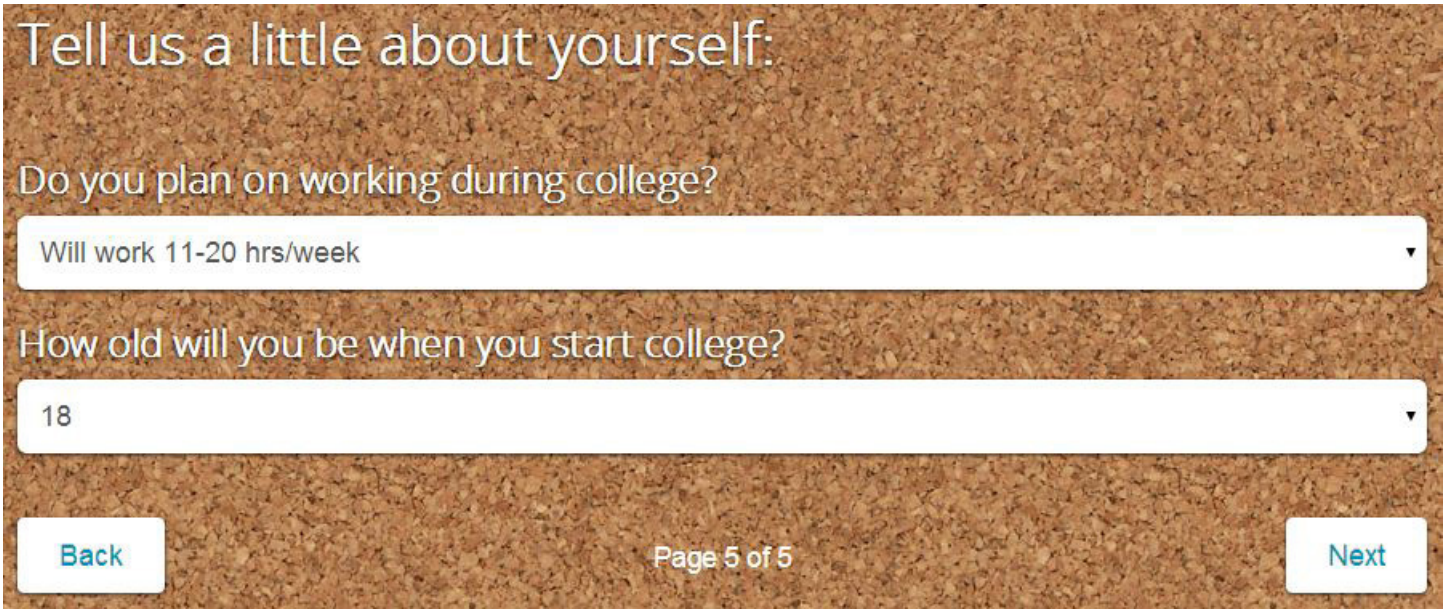
Step 3: Next, please tell us how many credits you plan to take and complete per semester. To earn a bachelor's degree in four years or an associate degree in two years you must take and complete at least 15 credits per semester (the equivalent of about 4 or 5 courses). For purposes of receiving financial aid, 12 credits per semester is also considered full-time enrollment. However, taking fewer than 15 credits per semester will most likely result in being enrolled in school for a longer period of time.



Step 4: Now select how long it will take for you to graduate with a degree. You could input the result from the previous Time to Degree tool or enter another number if you wish. For a transfer student from a community college this includes years spent at the community college too.

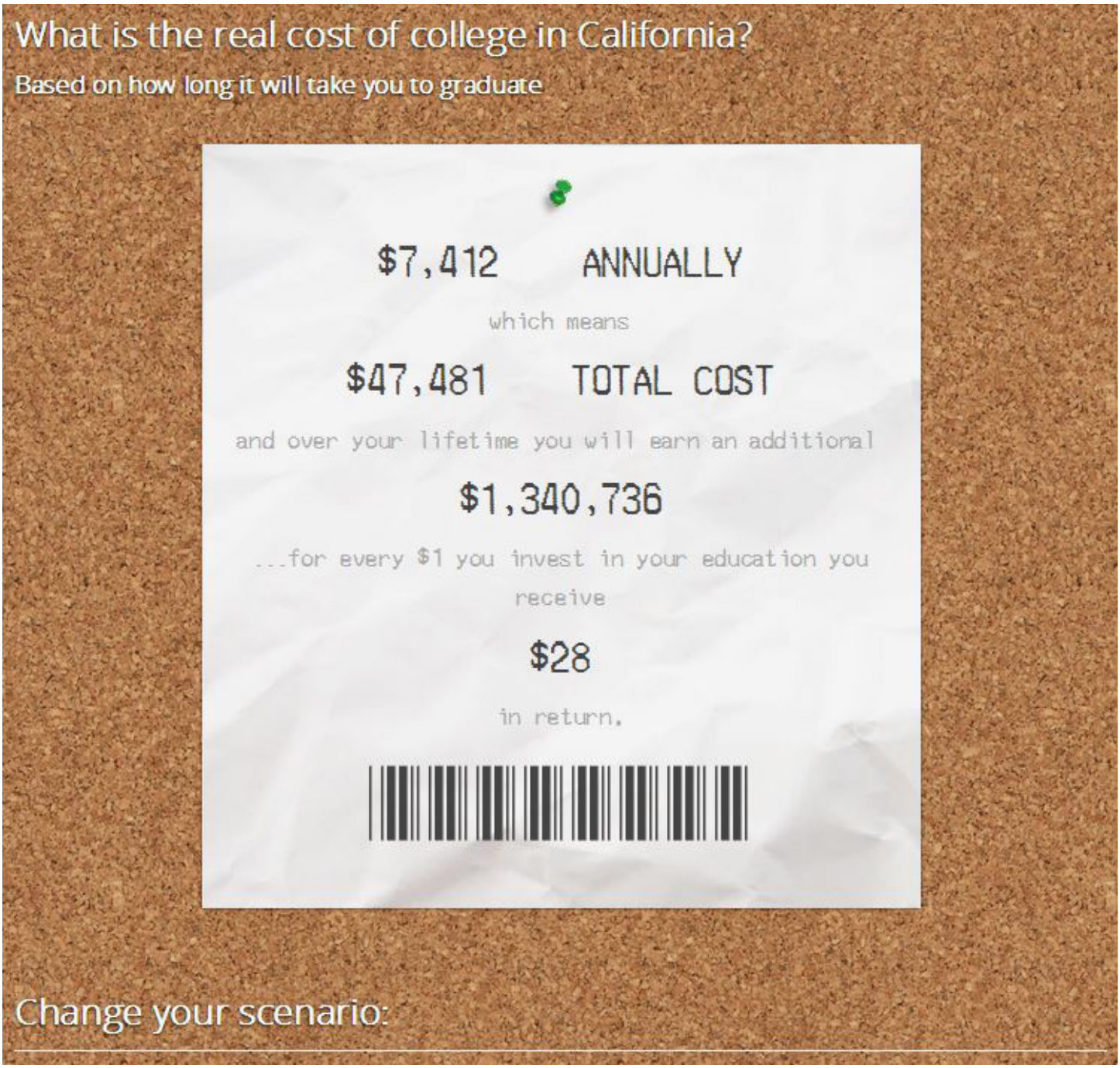


Step 5: Finally, tell us a bit more about yourself. Do you plan on working while in college? If so, how much? How old will you be when you start college?



Step 6: See the final results! This "receipt" provides you with estimates of your annual costs for each year you are enrolled in school and the total costs over the same period of time which includes tuition, fees, school-related expenses, and living expenses. We also provide your estimated additional lifetime earnings as a result of obtaining a college degree. The final figure represents the return on your investment in your education—this is the additional income you receive for every dollar that you spend on your income. This figure is calculated by dividing your additional income [as a result of your degree] by your total cost. It follows then, the lower your costs, the higher your return on your investment. It benefits you to keep your costs down and your income up to receive maximum benefit.

We encourage you to try different options in changing your scenario to see how your costs change. For example, what if you took more or fewer credits, how would that change your costs, earnings and return on investment? What if you attend a four-year university first instead of transferring from a community college? What if you changed the number of hours that you work while enrolled in school? Which answers result in the biggest return on investment?



The State Cost Tool

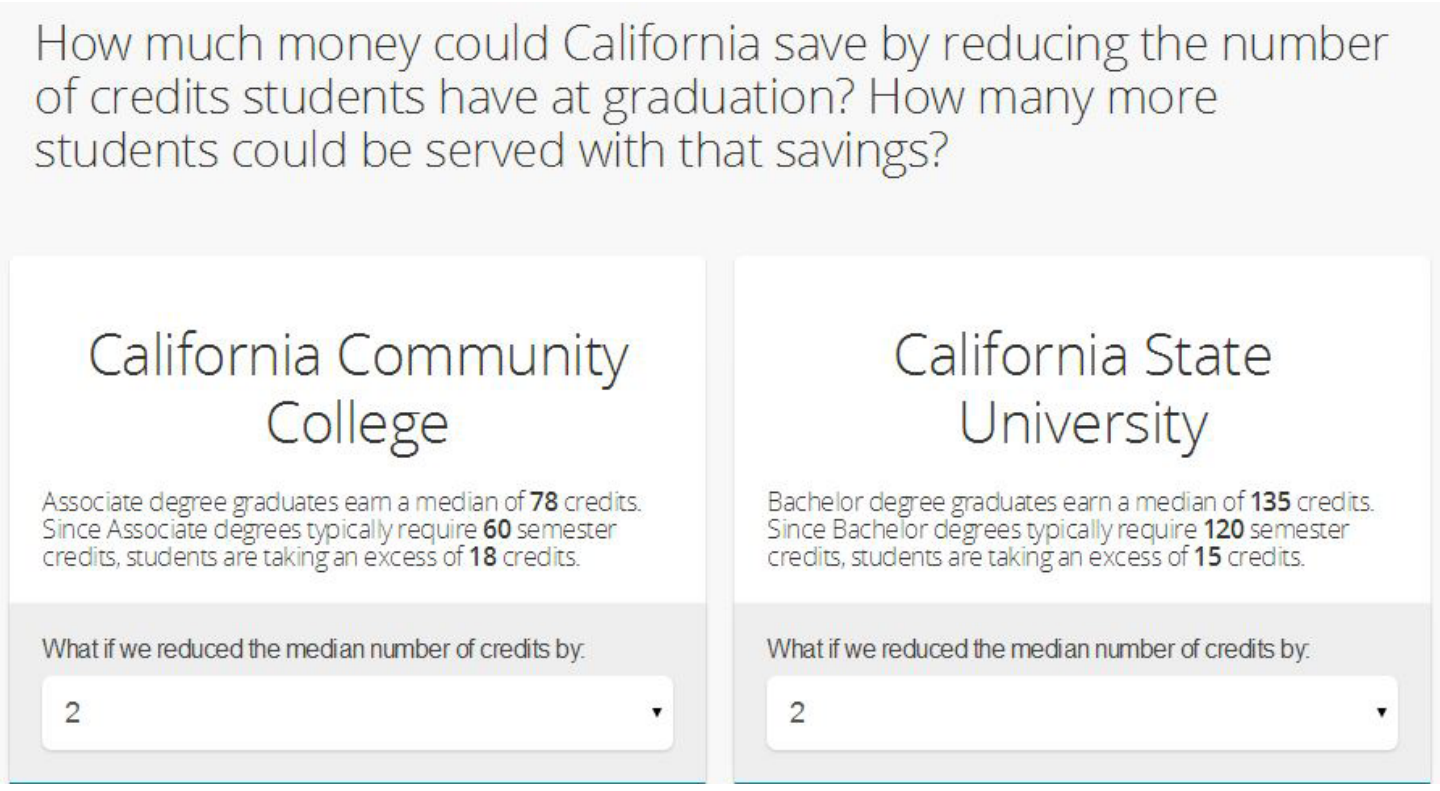
Description of the Tool

This state cost tool answers the questions, how much money could California save by reducing the number of credits students have at graduation and how many more students could be served with that savings. The model assumes a minimum of 120 credits for a baccalaureate degree at the California State University (CSU) system and 60 credits for an associate degree at the California Community College (CCC) system. The excess credits is the difference between the actual average credits to degree and the minimum required credits to degree. The user selects the average excess credits to degree, which the tool uses to calculate the excess cost and, as a result, provides the estimated additional number of students that could have been enrolled.

It is important to note that the additional number of students is *not* additional full-time students *per year*. These are the additional spots that would be available as a result of a student graduating earlier. For example, consider a student who graduated in 2011-12 in 4 years instead of 6 years. The cost will be saved for the next two years (2012-13 and 2013-14) thanks to this student graduating earlier, and another student could take this spot that has become available over the next two years. If this student graduated in 4 years instead of 7 years, then the savings impact would be felt over the next three years.

How to Use This Tool

Step 1: First, choose the number of credits by which the median could be reduced for both the CCC and CSU systems.



Step 2: Examine the results. The blue boxes will estimate the excess cost of the additional credits and calculate the number of additional students that money could make space for in terms of state spending. The graph represents the excess cost as a result of the additional credits. Try different scenarios. What does a 10 credit reduction mean to the CCC system compared to a 5 credit reduction at the CSU?

Appendix A: Methodology

The Time to Degree Tool

Methodology

The Time to Degree Tool is built on a multiple regression model, with R-squared at 0.42, 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, while not California-specific, it is fair to infer that the results are reasonably representative.

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 institution 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.

The Student Cost Tool

Methodology

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).

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.

The State Cost Tool

Methodology

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 4-year institutions and 60 credit hours at 2-year institutions for all completers in 2010-11.

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 the state of California based on appropriation 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.

Appendix B: List of Counties by Region

If you cannot find your county, please pick one that is closest in proximity.

Region	Counties in Region
Central Coast	Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura
Greater Sacramento Area	El Dorado, Placer, Sacramento, Yolo, Yuba
Inland Empire	Riverside, San Bernardino
Los Angeles County	Los Angeles
North San Joaquin Valley	Fresno, Kings, Merced, San Joaquin, Stanislaus, Tuolumne
Orange County	Orange
San Diego/Imperial	Imperial, San Diego
San Francisco Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, Solano, Sonoma
Silicon Valley	San Mateo, Santa Clara
South San Joaquin Valley	Kern, Tulare
Superior California	Butte, Humboldt, Lassen, Mendocino, Plumas, Shasta, Siskiyou, Trinity

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.

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