



# UNIVERSITY ELIGIBILITY STUDY FOR THE PUBLIC HIGH SCHOOL CLASS OF 2015

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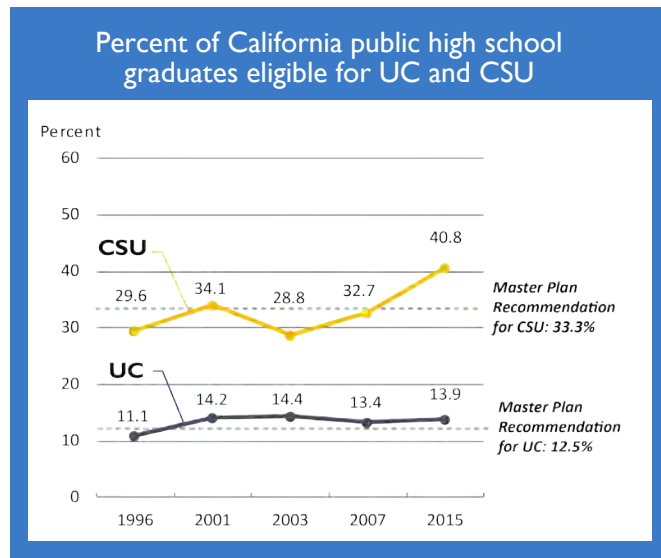
## I. EXECUTIVE SUMMARY

### A. 2015 Eligibility Rates

RTI International conducted the 2015 University Eligibility study to estimate the percentage of public high school graduates who meet the freshman admission requirements for the UC and California State University (CSU) systems.

In 2015, California public high schools graduated approximately 430,000 students. The study found that 13.9% of these graduates were eligible for UC admission through eligibility in the statewide context (ESC), eligibility in the local context (ELC), or by virtue of admission of students entitled to review (ETR) (figure A). The UC eligibility rate has risen slightly since the last study of the high school class of 2007 by the California Postsecondary Education Commission (CPEC). The CSU eligibility rate has grown faster, reaching nearly 41% in 2015. Both rates are now above the levels recommended in the state’s Master Plan for Higher Education: 12½% for UC and 33⅓% for CSU. (See Section III for a detailed description of the Master Plan.)

**Figure A: University eligibility rates**



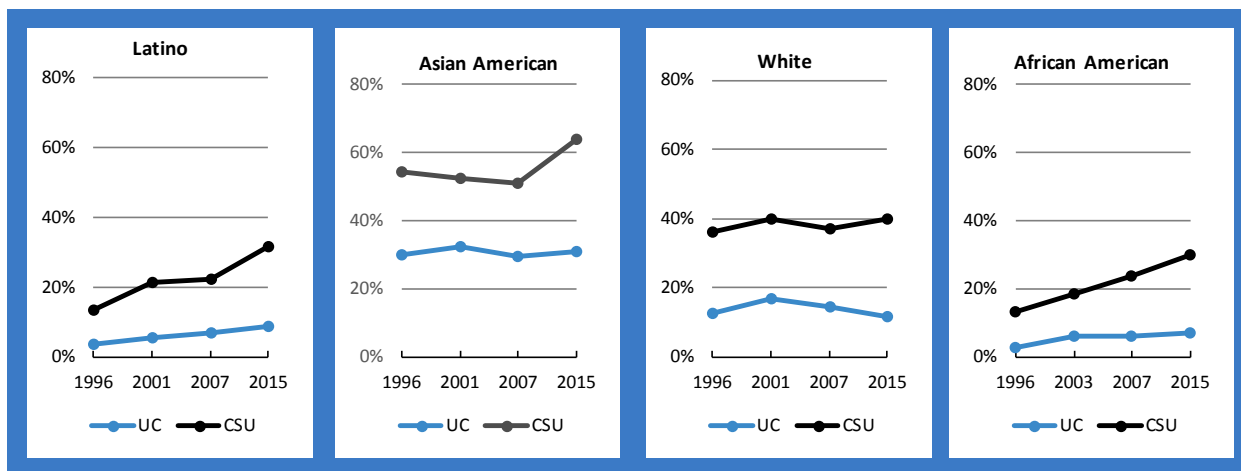
Note: UC = University of California; CSU = California State University.

## B. Eligibility by Race and Ethnicity

As in previous studies, the results show substantial differences in university eligibility by race and ethnicity.<sup>1</sup> The UC eligibility rates for African American and Latino graduates are much lower than the rates for White and Asian American graduates (figure B). While racial and ethnic gaps have persisted in UC, their magnitude has shrunk considerably. The gap between the two largest groups of students, White and Latino, is now less than half of what it was in 2007 (dropping from 7.7% to 3.4%). Over the same period, the eligibility gap between African American and White students narrowed from 8.3 percentage points to 5.4 points. Since the 1996 Eligibility Study, when African American and Latino students had eligibility rates of 2.8% and 3.8%, respectively, the rates for both groups have increased with each successive study. In the current study, ESC rates, taken in isolation, resemble the 1996 numbers in many respects. The ELC and ETR pathways, however, improve the odds considerably for these historically (and persistently) under-represented groups.

At CSU campuses, racial and ethnic gaps have shrunk dramatically since the 2007 study. The pool of eligible students is more diverse than ever before. Latino eligibility rates, which jumped in the 2007 report, continued to grow rapidly — to 31.9% in 2015. That number represents an increase of 9.4 percentage points since 2007 and it is almost double the rate of 16.0% reported in 2003.

**Figure B: Eligibility rates for racial and ethnic groups**



Note: UC = University of California; CSU = California State University.

## C. Eligibility Pool

The Master Plan lays out targets in terms of percentages of graduates rather than absolute numbers of students. The Eligibility Study traditionally reports the absolute numbers as well, to provide more detail about the magnitude of the changes over time. By convention, the report has referred to the raw numbers of students as the “eligibility pool.” The eligibility pool is a function of academic preparedness and admissions policy (as are eligibility *rates*) but also reflects California’s growing population and increasing rates of high school graduation.

<sup>1</sup> Race and ethnicity were tallied separately. Latino graduates may be of any race.

The 430,300<sup>2</sup> students who graduated from California public high schools in 2015 represented a record number for the sixth consecutive year, almost 80,000 more than the number reported in the 2007 CPEC report (see table 3b). Of these, 60,000 were eligible for UC in 2015 and 175,400 were eligible for CSU (see table 3a). Those numbers represent growth since 2007 of nearly 13,000 students in the UC eligibility pool, and nearly 61,000 in the CSU eligibility pool. Put differently, the change in eligibility *rates* translates to a massive increase in the numbers of students who qualify for public postsecondary education in the state. In the span of eight years, UC and CSU have seen growth in the *numbers* of eligible students of more than 30% and 50%, respectively.

## D. New Measures

This year's study includes data for several subgroups that were not measured in previous studies: specific subgroups of Asian Americans (including East Asian Americans, South Asian Americans, and Southeast Asian Americans) and socioeconomic subgroups.<sup>3</sup>

All three Asian American subgroups were eligible for both UC and CSU at rates higher than any other racial or ethnic group and at rates above the Master Plan targets (see table 2c), though there were differences in the eligibility rates among the three groups. East Asian Americans had the highest rates of eligibility and Southeast Asian Americans had the lowest among the three groups.

Socioeconomically disadvantaged graduates had lower rates of eligibility in 2015 for both UC and CSU than did their more socioeconomically advantaged peers (see table 2d). Graduates who were not socioeconomically disadvantaged had UC eligibility rates that exceeded both the UC and CSU Master Plan targets, 17.6% and 52.2%, respectively. The CSU eligibility rate of 34.0% for socioeconomically disadvantaged students slightly exceeded the Master Plan target, but the UC eligibility rate was 7.5%,<sup>4</sup> below the Master Plan target of 12½% for this system.

More details on the results and comparisons with past eligibility studies are in Section IV, Results.

## II. BACKGROUND OF THE STUDY

This is the fifth legislatively mandated study since 1990 to estimate the percentage of California public high school graduates who meet the freshman admission requirements of the University of California (UC) and California State University (CSU). The California Postsecondary Education Commission (CPEC) conducted the prior studies, and RTI International, through a contract with the California Governor's Office of Planning and Research, conducted the current study with assistance from the Transcript Evaluation Service (TES), part of the UC Office of the President, and the California Department of Education (CDE). This study examines the university eligibility of the public high school graduating class of 2015. CPEC's previous study was for the high school graduating class of 2007.

Historically, eligibility studies have been conducted by collecting transcripts from a sample of high schools throughout the state. Each transcript is reviewed by university staff to see if the pattern of courses, grades,

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<sup>2</sup> This number of graduates is greater than the number of "cohort graduates" reported by the California Department of Education (CDE) for 2014–15. The "cohort graduates" reported by CDE include only those students who entered 9<sup>th</sup> grade in 2011–12 and graduated within four years, whereas the graduates analyzed for this study include students who received their high school diplomas during the 2014–15 school year regardless of when they began high school.

<sup>3</sup> The UC eligibility rates for the subgroups discussed in this section did not include results for students who were admitted via the ETR pathway. See Section V.B. for information about the data used to calculate results for ETR.

<sup>4</sup> The UC eligibility rate for socioeconomically disadvantaged students does not account for students admitted via the ETR pathway. See Section V.B.

and test scores would make the student eligible for admission. This study follows that approach. Schools and districts were contacted beginning in July 2016, and transcripts of their 2014–15 seniors were collected over the following months. More than 70,000 transcripts from 158 schools were evaluated and form the basis of this report.

Originally planned for release in December 2016, the study was delayed by methodological challenges that did not exist for CPEC when it conducted the last study in 2007. The primary cause for delay in the present study was the low rate of response, which necessitated an additional round of sampling. In 2007, CPEC contacted 205 schools to build a sample of 165, which required a participation rate of 80%; ultimately, 158 (77%) schools actually participated. In the present study, RTI initially planned to contact 220 schools to build a sample of 165, requiring a participation rate of 75%. However, only 55% of the schools identified for the original sample participated, necessitating an additional round of sampling and recruitment to build a reliable sample.

There are many likely reasons why participation declined between the two studies. Response rates for survey research in general have been declining for decades.<sup>5</sup> In the context of this study, there may have been several other factors at work, including the following:

- Use of a private contractor instead of a government agency: Some school officials were not familiar with RTI International, making them less inclined to release student data.
- “Survey fatigue”: An increasingly data-driven policy environment has increased demands on the school and district staff members who process and respond to requests for data. In many cases the required personnel were occupied with other state-based, data-heavy projects such as testing and implementation of the Smarter Balanced Assessment System.
- Appearance of redundancy: Since 2008–09, schools and districts have been contributing student course-taking record data similar to the transcript data required by the Eligibility Study to the California Longitudinal Pupil Achievement Data System (CALPADS). In some cases, school and district staff members believed that they were being asked to submit data to CALPADS or did not understand why they had to provide the state with what seemed to be equivalent data more than once.

The challenges encountered by the present study raise important questions for future eligibility studies. There is no reason to believe the difficulties of conducting a traditional sample survey will lessen, as the underlying response rate trends show no sign of shifting. At the same time, “big data” systems like CALPADS hold the potential for the state to study eligibility without sampling: when “big data” are used in the strictest sense, 100% of the population is included in the study, obviating the need to build a representative sample. Furthermore, under a “big data” model, there would be no need to contact schools and gain their agreement to participate because the study would use data they had already submitted to the state. The ultimate promise of a “big data” model would be the capacity to study eligibility in real time (yearly) at relatively minimal expense.

This potential is the rationale behind the decision to conduct, as a companion to the present study, an effort to replicate the results using CALPADS data. Although the relative newness of the system and historical differences between its data and transcript data have made it infeasible to draw the data required for this eligibility study from CALPADS, it may be possible for future studies. A report on the potential suitability of CALPADS for future eligibility studies will be released later in 2017.

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<sup>5</sup> See National Research Council. 2013. *Nonresponse in Social Science Surveys: A Research Agenda*. Washington, DC: The National Academies Press.

### III. UC AND CSU ELIGIBILITY REQUIREMENTS FOR FALL 2015

The Master Plan for Higher Education in California, originally adopted in 1960, provided guidance for the functions of the three segments of higher education in California: the UC, CSU, and California Community College (CCC) systems. The Master Plan sought to differentiate and clarify the roles and functions of the three systems, thereby calling for different admission standards for each system, with the UC system expected to select from the top one-eighth of the admission pool, the CSU system selecting from the top one-third, and the CCC system being open to anyone who might benefit from instruction.

**Table 1. UC and CSU “a–g” Course Requirements for Admission**

Subject area	UC	CSU
History/ social science (a)	2 years, including <ul style="list-style-type: none"> <li>▪ 1 year of U.S. history or ½ year of U.S. history and ½ year of American government or civics; and</li> <li>▪ 1 year of world history, cultures, and historical geography</li> </ul>	2 years, including <ul style="list-style-type: none"> <li>▪ 1 year of U.S. history or ½ year of U.S. history and ½ year of American government or civics; and</li> <li>▪ 1 year of history/social science from either the a or g subject area.</li> </ul>
English (b)	4 years of college preparatory English (Advanced English as a Second Language cannot be completed in 12 <sup>th</sup> grade)	4 years of college preparatory English
Mathematics (c)	3 years of college preparatory mathematics that include or integrate topics covered in elementary and advanced algebra and geometry	3 years of college preparatory mathematics that include or integrate topics covered in elementary and advanced algebra and geometry
Laboratory science (d)	2 years of laboratory science in at least 2 of the disciplines of <ul style="list-style-type: none"> <li>▪ biology;</li> <li>▪ chemistry; and</li> <li>▪ physics.</li> </ul>	2 years of laboratory science in each of <ul style="list-style-type: none"> <li>▪ physical science and</li> <li>▪ biological science</li> </ul> 1 year may be fulfilled with a course from the g area
Language other than English (e)	2 years of the same language other than English or equivalent to the 2 <sup>nd</sup> level of high school instruction	2 years of the same language other than English or equivalent to the 2 <sup>nd</sup> level of high school instruction
Visual and performing arts (f)	1 year, chosen from <ul style="list-style-type: none"> <li>▪ dance;</li> <li>▪ music;</li> <li>▪ theater; or</li> <li>▪ visual arts.</li> </ul>	1 year, chosen from <ul style="list-style-type: none"> <li>▪ dance;</li> <li>▪ music;</li> <li>▪ theater; or</li> <li>▪ visual arts.</li> </ul>
College preparatory elective (g)	1 year, chosen from a–f courses beyond those used above or courses that have been approved solely for the elective area	1 year, chosen from a–f courses beyond those used above or courses that have been approved solely for the elective area
Timing of course completion	11 of the 15 courses must be completed prior to senior year	

Note: UC = University of California; CSU = California State University

Since the adoption of the Master Plan, those admission standards have been reaffirmed several times. However, the definition of “the top” has been left up to the systems themselves and their means of determining students’ qualifications for admission; therefore, the requirements for students have changed several times over the ensuing years. As of 2009, effective for the freshmen who entered the UC or CSU system in fall 2012, applicants to both the UC and CSU systems are expected to complete a specified series of 15 high school courses known as “a–g” subject requirements. The “a–g” requirements are detailed in table 1, by system. Eligibility requirements for freshman admission to both UC and CSU are based on a

combination of “a–g” coursework, grade point average (GPA), and SAT or ACT exams. Specific requirements for each system (UC and CSU) are detailed in table 1.

## A. UC Eligibility Requirements

The minimum standards for admission to UC for freshmen in fall 2015 required applicants to have

- completed the 15 “a–g” subject requirements detailed in table 1, with at least 11 taken by the end of 11<sup>th</sup> grade, and at least seven taken during the last two years of high school;
- earned a GPA, based on the “a–g” subject requirement courses taken during 10<sup>th</sup> and 11<sup>th</sup> grade, of 3.0 or higher, with one extra grade point given for grades of C or above earned in approved honors-level courses (e.g., A=5) to a maximum of four courses, including a maximum of two courses taken in the 10<sup>th</sup> grade; and
- submitted their scores to the UC system from the SAT Reasoning test or the ACT with Writing.

Completing these minimum requirements ensured that California residents were at least “Entitled to Review” (ETR) at campuses where they applied. Students meeting the higher standards of “eligibility in the statewide context (ESC)” or “eligibility in the local context (ELC)” were offered admission to at least one UC campus under the “9 x 9” admissions policy. The criteria for each path to eligibility are detailed below.

### 1. Eligibility in the Statewide Context (ESC)

All freshman applicants who met the “a–g” subject requirements outlined above and who, based on a combination of their GPA and SAT or ACT scores, were among the top 9% of 2015 California high school graduates, were eligible for admission to the UC system.

### 2. Eligibility in the Local Context (ELC)

All freshman applicants who completed the “a–g” subject requirements, minimum GPA, and test score submission requirements outlined above and were in the top 9% of their participating California public high schools, were eligible for admission to the UC system.

### 3. Entitled to Review (ETR)

All freshman applicants who met the “a–g” subject requirements, achieved a minimum GPA, and submitted test scores — but were neither in the top 9% in the state nor in the local context — were considered ETR. These students received a comprehensive review of their applications at each UC campus where they applied, but their ETR status did not guarantee their admission to any UC campus. In keeping with the spirit of the Master Plan, only those ETR students who were ultimately admitted in 2015 were considered eligible for the purpose of this study.

## B. CSU Eligibility Requirements

To have been eligible for admission to CSU as a freshman in fall 2015, California students must have

- completed the 15 “a–g” subject requirements detailed in table 1;
- earned a GPA, based on the “a–g” subject requirement courses taken after 9<sup>th</sup> grade, of 2.0 or higher, with one extra grade point given for grades of C or above earned in approved honors-level courses (e.g., A=5) to a maximum of four courses, including a maximum of two courses taken in 10<sup>th</sup> grade; and

- with a GPA between 2.0 and 3.0, earned the corresponding minimum score or above on the SAT or ACT, according to the CSU eligibility index for California residents ([http://www.csumentor.edu/planning/high\\_school/cal\\_residents.asp](http://www.csumentor.edu/planning/high_school/cal_residents.asp)).

### C. Changes to Eligibility Requirements Since 2007

Since the Eligibility Study was last conducted based on freshman entering college in fall 2007, CSU eligibility requirements have remained consistent. However, effective fall 2012, the requirements for admission to UC have changed. Changes include

- elimination of the qualifying test score requirement on SAT or ACT;
- elimination of two SAT subject area exams (generally referred to as “SAT II”);
- applications of students meeting minimum requirements are entitled to review;
- an increase, from 4% to 9%, in the percentage of students at each school who can be considered ELC; and
- a decrease, from 12.5% to 9%, in the ESC target.

## IV. RESULTS

### A. Overall Eligibility Rates

The percentage of California public high school graduates eligible for UC by meeting the ESC or ELC requirement was 11.2% in 2015 (table 2b, bottom of next page). After accounting for the roughly 2.7% of students admitted to UC through the ETR process, the 13.9% overall eligibility rate in 2015 is similar to both the 13.4% rate in 2007 and the 14.4% rate in 2003 (table 2a). The ETR process appears to be fulfilling expectations as a path to entry into the UC system for many students who meet basic UC standards but who fall outside of the top 9% categories as they are defined for ESC or ELC.

In 2001 and 2003, CPEC eligibility studies estimated that the UC eligibility rate was above the 12½% recommended in the state’s 1960 Master Plan for Higher Education (table 2a). UC responded by making requirements more stringent, leading to a decrease in the percentage of UC-eligible graduates in 2007, according to the last CPEC report. In 2012, in response to evidence that the SAT II was a relatively weak predictor of postsecondary success, UC made SAT II subject exams optional. The UC system also increased, from 4% to 9%, the percentage of students who would be considered ELC (simultaneously tightening the threshold for ESC from 12.5% to 9%). At that time, all applicants meeting the minimum standards for eligibility also began to receive a comprehensive review by any campus to which they applied, further expanding opportunities for admission.

Prior studies since the 1980s have estimated CSU eligibility rates alternating between substantially below and roughly equivalent to the 33⅓% target set by the California Master Plan. The 40.8% rate in 2015 represents a high water mark for CSU eligibility. The CSU eligibility result can be explained, in part, by dramatic growth in academic performance among Latino students and concomitant growth in the number of Latino students as a percentage of all high school graduates.

**Table 2a. Eligibility rates, by year, university system, and student group, 1996–2015**

	Percent Eligible				
	1996	2001	2003	2007	2015
<b>University of California</b>					
All graduates	11.1	14.2	14.4	13.4	<b>13.9</b>
Male	9.7	12.5	12.6	11.2	<b>11.9</b>
Female	12.6	15.8	16.2	15.3	<b>16.1</b>
Latino <sup>a</sup>	3.8	5.5	6.5	6.9	<b>8.5</b>
Asian American <sup>b</sup>	30.0	32.7	31.4	29.4	<b>30.7</b>
White	12.7	16.9	16.2	14.6	<b>11.9</b>
African American	2.8	4.3	6.2	6.3	<b>6.5</b>
American Indian	—	8.9	6.6	2.4	<b>6.8</b>
<b>California State University</b>					
All graduates	29.6	34.1	28.8	32.7	<b>40.8</b>
Male	26.3	28.4	24.0	27.3	<b>35.3</b>
Female	32.9	39.4	33.3	37.6	<b>46.5</b>
Latino <sup>a</sup>	13.4	21.6	16.0	22.5	<b>31.9</b>
Asian American <sup>b</sup>	54.4	52.4	47.5	50.9	<b>64.0</b>
White	36.3	40.0	34.3	37.1	<b>39.8</b>
African American	13.2	20.2	18.6	24.0	<b>30.0</b>
American Indian	—	20.1	19.7	12.1	<b>34.7</b>

<sup>a</sup> Latino ethnicity is identified independently of race.

<sup>b</sup> Asian American includes Pacific Islander and Filipino American for historical consistency. A more nuanced look at Asian American subgroups in 2015 can be found in table 2c.

NOTE: Historical information for graduates of unknown race or more than one race was not available. 2015 eligibility information for these groups is available in the appendix. CDE data show an improbable change in the numbers of graduates identified as American Indian in 2015 and, as of publication, CDE is working to confirm the information. If CDE determines the data should be revised, an addendum to the report may be issued if outcomes differ as a result of their findings.

**Table 2b. UC eligibility rates, by race/ethnicity for ESC, ELC, and ETR: 2015**

	ESC-Eligible Only	ELC Included	ETR Included
All graduates	8.9	11.2	13.9
Male	8.0	9.6	11.9
Female	9.9	13.0	16.1
Latino <sup>a</sup>	3.2	6.2	8.5
Asian American <sup>b</sup>	22.1	25.0	30.7
White	8.7	10.7	11.9
African American	2.7	4.5	6.5
American Indian	3.7	6.4	6.8

<sup>a</sup> Latino ethnicity is identified independently of race.

<sup>b</sup> Asian American includes Pacific Islander and Filipino American for historical consistency.

Note: UC = University of California; ESC = Eligibility in the statewide context; ELC = Eligibility in the local context; ETR = Entitled to review. Historical information for graduates of unknown race or more than one race was not available. 2015 eligibility information for these groups is available in the appendix. CDE data show an improbable change in the numbers of graduates identified as American Indian in 2015 and, as of publication, CDE is working to confirm the information. If CDE determines the data should be revised, an addendum to the report may be issued if outcomes differ as a result of their findings.



**Table 2c. UC and CSU eligibility rates, by Asian American subgroup: 2015**

	UC <sup>a</sup>	CSU
East Asian American	35.1	74.2
South Asian American	26.1	65.4
Southeast Asian American	17.7	56.6
All Asian American	25.0	64.0

<sup>a</sup> Rates reflect eligibility in the statewide context and eligibility in the local context only; entitled to review information by Asian American subgroups was not available.

Note: UC = University of California; CSU = California State University.

**Table 2d. UC and CSU eligibility rates, by socioeconomic status: 2015**

	UC <sup>a</sup>	CSU
Socioeconomically disadvantaged	7.5	34.0
Not socioeconomically disadvantaged	17.6	52.2

<sup>a</sup> Rates reflect eligibility in the statewide context and eligibility in the local context only; entitled to review information by socioeconomic status was not available. Note: UC = University of California; CSU = California State University.

## B. Eligibility Among Subgroups

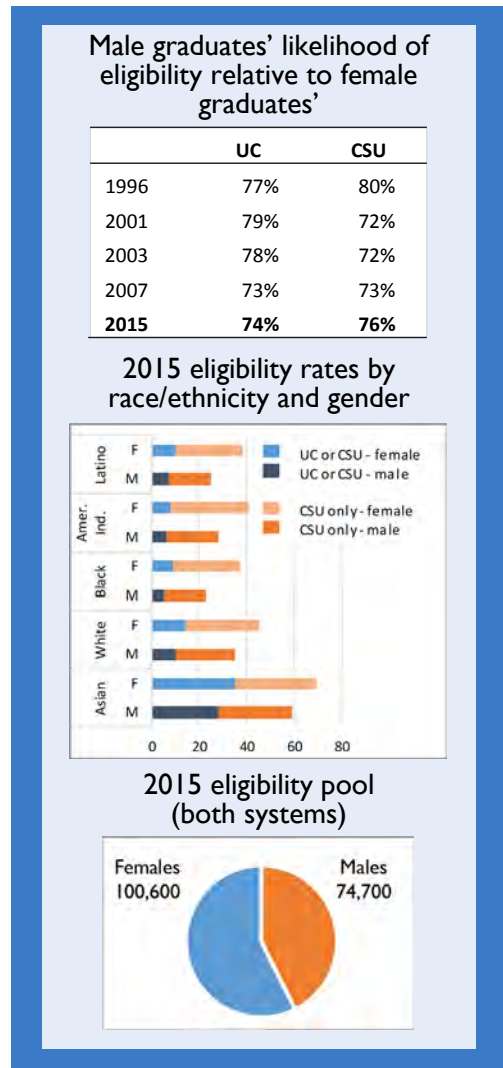
### I. Eligibility by Gender

Eligibility rates for male graduates have been markedly lower and trending downward since the first CPEC report in 1996. This trend stabilized in 2015. The UC eligibility rate for male graduates was 74% of the rate for female graduates (up from 73% in 2007) (see table 2a). The CSU eligibility rate for male graduates was 76% of the rate for female graduates (up from 73%) (figure 1). Thus, young women continue to outperform substantially, but the disparities are not growing.

### 2. Eligibility Rates Among Racial and Ethnic Groups<sup>6</sup>

The gaps among racial and ethnic groups have gradually narrowed over time, a trend that the UC Office of Admissions attributes to shifting demographics, K–12 reform efforts that emphasize college preparation, and efforts by UC and CSU to expand access to postsecondary education. Disparities remain, of course, and the question of whether progress will continue without additional investment is one that both the UC and CSU systems must consider. Eligibility rates for African American and Latino high school graduates are still much lower than for Asian American and White graduates. UC eligibility rates overall in 2015 were similar to rates from years past, but the relative stability overall masks a noteworthy convergence in outcomes for Latino and African American students relative to White students. The UC eligibility rate for African American students trended upward from 6.3% in 2007 to

**Figure 1: The gender gap**



Note: UC = University of California; CSU = California State University.

<sup>6</sup> Race and ethnicity were tallied separately. Latino graduates may be of any race.

6.5% in 2015, while the rate for Latino students jumped to 8.5% from 6.9% (see table 2a).

UC eligibility rates trended slightly higher for Asian American students and lower for White students. Overall, the eligibility gap shrank for African American youth and improved markedly for Latino students compared with Asian American and White students. Because Latino students make up the vast majority of the Under-Represented Minority (URM) category, the equity picture as defined by URM eligibility has improved substantially. Nevertheless, disparities remain profound.

CSU eligibility rates for all racial and ethnic groups increased between 2007 and 2015. Growth was particularly rapid among Asian American and Latino students, but African American students made dramatic strides as well. Over the course of the last three studies, CSU eligibility for African American students has risen from 18.6% in 2003 and 24.0% in 2007 to 30.0% in the current study. Overall the eligibility gap (the difference in rates between Latino, African American, and American Indian students and Asian American and White students) shrank in 2015. Gains by Latino students that were evident in the prior CPEC report continue to accelerate, rising from 16.0% in 2003 and 22.5% in 2007 to 31.9% in the current study.

This study examined eligibility rates for Asian Americans by subgroup: East Asian Americans, South Asian Americans, and Southeast Asian Americans. All three of these subgroups outperformed other racial or ethnic groups and were eligible for UC and CSU at rates above the Master Plan targets (see table 2d), with East Asian Americans eligible at the highest rates among the three, and Southeast Asian Americans eligible at the lowest rates among the three. The reported UC eligibility rates for these groups only reflect the percentages of students eligible via the ESC and ELC (see Section V, Procedures/Methodology for information about the data sources used to calculate eligibility); however, even before including students admitted via ETR, UC eligibility for the three groups ranged from 17.7% to 35.1%, all above the Master Plan target for UC. Similarly, all three groups had CSU eligibility rates well above the Master Plan target, ranging from 56.6% to 74.2%.

### 3. Eligibility by Socioeconomic Status

This study examined eligibility by socioeconomic status, which had not been conducted in earlier studies. The percentage of socioeconomically disadvantaged students eligible for UC via ESC or ELC was 7.5%, compared with 17.6% for students who were not socioeconomically disadvantaged (see table 2d).<sup>7</sup> The CSU eligibility rate for socioeconomically disadvantaged students was 34.0% compared with 52.2% for students who were not socioeconomically disadvantaged.

These economic gaps are larger than the racial gaps discussed. Without historical eligibility information for these groups, it is unknown whether disparity in outcomes for the two groups has changed over time. However, it is worth noting that the percentage of socioeconomically disadvantaged graduates who were eligible for CSU in 2015 was in line with the Master Plan target of 33⅓%, while the percentage of graduates who were not socioeconomically disadvantaged was well above the target.

#### C. Eligibility Pool

Applying eligibility rates to the number of students graduating from California public high schools gives an estimate of the number of students eligible, for each system. For UC, the 2015 eligibility pool was an estimated 60,000, up from 46,800 in 2007. The CSU eligibility pool was up from 114,400 in 2007 to 175,400 in 2015, an increase of over 50%. This reflects acceleration of a trend that had already emerged (in 2007, the CSU pool grew by 20% relative to 2003). The trends by subgroup are shown in tables 3a and 3b.

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<sup>7</sup> Socioeconomic disadvantage is now the preferred indicator of socio-economic status used by CDE. It is a composite indicator that accounts for both eligibility for free and reduced-price lunch and parental education. ETR data by socioeconomic status were not available.

**Table 3a. Eligibility pool, by system**

	1996	2001	2003	2007	2015
<b>University of California</b>					
All graduates	28,600	44,300	48,400	46,800	<b>60,000</b>
Male	12,000	18,600	20,200	18,900	<b>25,300</b>
Female	16,900	25,700	28,300	27,900	<b>35,000</b>
Latino <sup>a</sup>	3,000	5,600	7,400	8,700	<b>18,100</b>
Asian American <sup>b</sup>	11,200	15,200	15,200	15,300	<b>17,600</b>
White	15,300	23,200	23,100	20,000	<b>27,200</b>
African American	500	900	1,500	1,600	<b>1,800</b>
American Indian	—	200	200	100	<b>1,600</b>
<b>California State University</b>					
All graduates	76,200	106,500	96,700	114,400	<b>175,400</b>
Male	32,500	42,500	38,600	46,400	<b>75,200</b>
Female	44,100	64,100	58,300	68,400	<b>101,000</b>
Latino <sup>a</sup>	10,500	22,100	18,300	28,300	<b>68,300</b>
Asian American <sup>b</sup>	20,300	24,400	23,000	26,400	<b>36,800</b>
White	43,800	55,100	49,000	50,700	<b>90,500</b>
African American	2,500	4,400	4,500	6,000	<b>8,300</b>
American Indian	—	500	600	300	<b>8,500</b>

NOTE: Footnotes appear on table 3b.

**Table 3b. California public high school graduates**

	1996	2001	2003	2007	2015
All graduates	257,400	312,000	335,700	350,400	<b>430,300</b>
Male	123,500	149,500	160,800	168,500	<b>211,900</b>
Female	133,900	162,500	174,800	181,900	<b>216,100</b>
Latino <sup>a</sup>	78,000	102,200	114,300	125,700	<b>212,800</b>
Asian American <sup>b</sup>	37,300	46,600	48,400	51,800	<b>57,500</b>
White	120,600	137,700	142,800	136,500	<b>227,400</b>
African American	19,200	21,900	24,100	24,900	<b>27,700</b>
American Indian	2300	2700	3100	2800	<b>24,500</b>

<sup>a</sup> Latino ethnicity is identified independently of race.

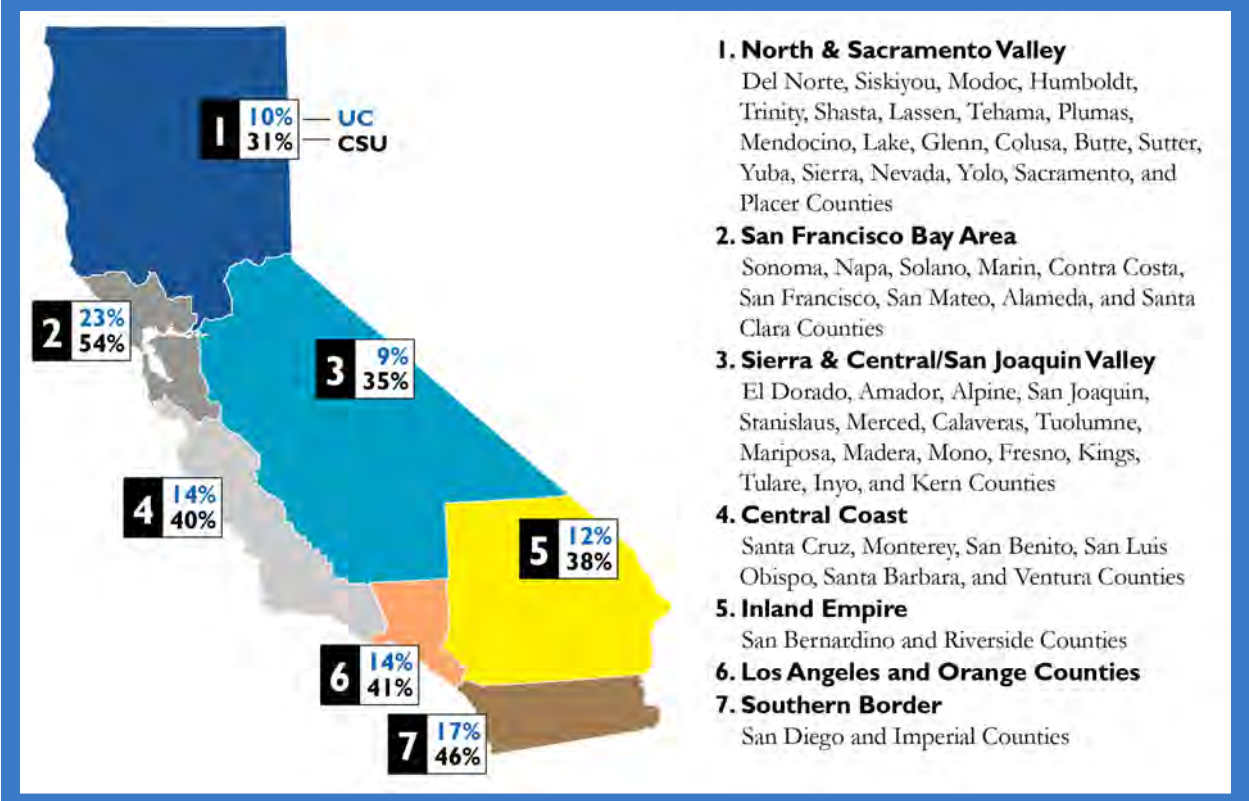
<sup>b</sup> Asian American in this table includes Pacific Islander and Filipino American for historical consistency.

NOTE: Estimates are rounded to the nearest hundred. Historical information for graduates of unknown race or more than one race was not available. 2015 eligibility information for these groups available in the appendix. CDE data show an improbable change in the numbers of graduates identified as American Indian in 2015 and, as of publication, CDE is working to confirm the information. If CDE determines the data should be revised, an addendum to the report may be issued if outcomes differ as a result of their findings.

### D. Eligibility by School Region

The regional breakdown of eligibility is presented in this report (figure 2) for the first time and reflects geographic categories of interest, politically and educationally. The regions have many areas of overlap in the types of populations they serve, resources available, and challenges faced, but they also are characterized by some important economic and demographic differences and often have different postsecondary education profiles.

**Figure 2: School regions**



Note: UC = University of California; CSU = California State University.

#### 1. North and Sacramento Valley

This region includes schools in the counties of Lake, Mendocino, Humboldt, Trinity, Del Norte, Siskiyou, Modoc, Lassen, Plumas, Sierra, and Nevada as well as schools in Sacramento, Yolo, Placer, Sutter, Yuba, Colusa, Butte, Glenn, Tehama, and Shasta counties. The percentage of students eligible for UC admission in this region was 9.7%, and the percentage eligible for CSU admission was 31.1%.

#### 2. San Francisco Bay Area

This region includes schools in the counties of Santa Clara, San Mateo, Alameda, Contra Costa, San Francisco, Marin, Sonoma, Solano, and Napa. The percentage of students eligible for UC admission in this region was 23.1%, and the percentage eligible for CSU admission was 53.9%.

### 3. Eastern Sierra and Central/San Joaquin Valley

This region includes schools in the counties of Inyo, Mono, Mariposa, Tuolumne, Calaveras, Amador, Alpine, and El Dorado as well as the schools in Kern, Kings, Tulare, Fresno, Madera, Merced, Stanislaus, and San Joaquin counties. The percentage of students eligible for UC admission in this region was 9.2%, and the percentage eligible for CSU admission was 34.6%.

### 4. Central Coast

This region includes schools in the counties of Ventura, Santa Barbara, San Luis Obispo, Monterey, San Benito, and Santa Cruz. The percentage of students eligible for UC admission in this region was 14.0%, and the percentage eligible for CSU admission was 40.3%.

### 5. Inland Empire

This region includes schools in the counties of Riverside and San Bernardino. The percentage of students eligible for UC admission in these counties was 11.8%, and the percentage eligible for CSU admission was 38.1%.

### 6. Los Angeles and Orange Counties

The percentage of students eligible for UC admission in Los Angeles and Orange counties was 13.6%, and the percentage eligible for CSU admission was 41.1%.

### 7. Southern Border

This region includes schools in the counties of San Diego and Imperial. The percentage of students eligible for UC admission was 16.7%, and the percentage eligible for CSU admission was 45.5%.

## V. PROCEDURES/METHODOLOGY

### A. Sampling Plan

The study used a stratified cluster sampling design, with schools stratified and selected randomly within each stratum, with a target margin of error of 2.1% (+/- at 95%) confidence level for the whole sample, and a total yield of 165 participating schools. The sampling frame was developed from the following list of school- and student-level information:

1. School Academic Performance Index for 2013
2. School racial and ethnic composition
3. School proportion of English language learner students
4. 2014–15 “a–g” completion rate
5. School region
6. School type
7. School size as indicated by the total number of seniors enrolled in 2015–16
8. School proportion of students ever eligible for free and reduced-price lunch

Two types of stratification were conducted: explicit and implicit. To avoid too many strata and too few schools within each stratum, explicit stratification was conducted only on the first four school

characteristics in the sampling frame. For school racial and ethnic composition, cell sizes were small using the primary categories of Latino, Asian American, White, African American, and other. Therefore, for stratification purposes, each school was categorized as having a high, medium, or low proportion of Under-Represented Minority students, with these students defined as African American, Latino, or American Indian. Within each stratum, implicit stratification was based on the latter four school characteristics in the above list.

To achieve sample representativeness of the population, schools with probabilities proportional to size were selected. Sampling was conducted in two phases. In the first phase, 220 schools were selected. However, the target of 165 participating schools could not be achieved with these 220 schools, so a supplemental sample of schools was selected. In the second phase, 870 schools were randomly ranked, independent from the first sample and using the same sampling approach. The first unique 120 schools from districts that had not previously refused to participate (unless the schools were independent charter schools in these districts) comprised the second sample. These 120 schools plus the original 220 schools were sufficient to achieve the target. The remainder of the 870 schools made up a reserve sample that could be used for further subsampling if additional schools were deemed necessary. (See table 4 for a comparison of sample sizes and margins of error in this and earlier studies.)

## B. Data Collection

The primary data source for the study was student transcript data provided by the sampled schools or their district offices. RTI and the Transcript Evaluation Service (TES) at the University of California Office of the President (UCOP) worked together to collect transcript records from eligible schools, with RTI responsible for contacting and securing participation agreements from schools and TES responsible for receiving transcript record submissions directly from the participating schools and districts.

The schools' and districts' participation in the study was voluntary. Once the sample pool was drawn, RTI sent information materials and template letters of agreement to either district superintendents or, for independent charter schools, heads of school. To recognize their efforts to provide data for the study, schools received a summary TES report based on the data they submitted and were provided with the opportunity to receive six months of TES service for their current students at no cost.

Once schools submitted agreement letters to participate in the study, TES provided them with temporary, limited TES accounts for submitting the data records to be evaluated. Data files were prepared by a data specialist at the school or district according to the specifications provided by TES and submitted directly to the TES server for evaluation.

Students who did not meet ESC or ELC criteria but met the minimum eligibility requirements for UC admission were ETR, but their eligibility for admission was only determined after they received comprehensive review. Therefore, only UC-admitted ETR graduates were considered eligible for the purposes of this study. While TES data could be used to identify students who met all basic eligibility requirements, they provided no information on students' admission to the UC or CSU systems. Therefore, RTI collected an additional data set from UCOP Admissions on the number of students admitted via ETR to the UC system in fall 2015. These data did not include information that would allow the records to be linked to the TES data set. Therefore, eligibility via ETR was calculated separately from ESC and ELC. Furthermore, these data were not reported by socioeconomic status nor by the three Asian American subgroups analyzed in this study.

Additional data needed to determine eligibility rates, including assessment data (i.e., SAT and ACT results), were provided by the CDE. RTI collected these data through a data sharing agreement with CDE. (See table 4 for a comparison of data collection methods used in this and previous studies.)

**Table 4. Transcript collection and margins of error**

Study year	Schools contacted	Transcripts used	Evaluation technique	Margin of error
1996 and earlier	All high schools in the state <sup>a</sup>	A sample of 5–10% of the transcripts from each school's graduating class	Manual	0.5–0.7%
2001	All high schools in the state; <sup>a</sup> 1,080 valid responses	A sample of 5–10% of the transcripts from each school's graduating class; 13,400 transcripts collected	Manual with some computerized assistance	0.8%
2003	Sample of 48 schools; all responding	All transcripts for 12 <sup>th</sup> -graders; 15,900 transcripts collected	Computerized matching of courses to requirements, followed by staff review	3.4%
2007	Sample of 205 schools; 158 responded	All transcripts for 12 <sup>th</sup> -graders; 72,000 transcripts collected	More refined version of the evaluation technique used in 2003, conducted by Vangent, Inc.	2.1%
2015	Sample of 340 schools; 164 responded; 156 used for the final analysis	All transcripts for 12 <sup>th</sup> -graders; 77,000 transcripts collected	Similar technique used in 2003 and 2007, conducted by Transcript Evaluation Service, University of California Office of the President	3.2%

<sup>a</sup> Includes all comprehensive, continuation, and alternative public high schools.

### C. Processing and Review of Data

Academic records for the graduating class of 2015 were uploaded to the TES secure website and then submitted to rigorous data quality checks before entering an automated system evaluation. To ensure maximum accuracy, UCOP staff with an average of 20 years of “a–g” evaluation experience performed additional manual verifications of the transcripts submitted to a) match each course to a corresponding list of “a–g” coursework approved by UC, b) account for repeated coursework, c) ensure correct validation of subject area requirements by advanced-level coursework and test scores when available in the student data file, d) include coursework completed at a postsecondary and/or international institution, and e) verify calculations for both UC and CSU to account for nuances in the validation rules between the two systems.

### D. Record Matching

Once TES completed the data verification and evaluation of the records, they were transmitted to RTI for matching with data from CDE and attaching variables such as race and ethnicity, socioeconomic status, and SAT and/or ACT scores.

Linking to CALPADS data enabled the team to complete the assessment of graduates' eligibility for admission to either system. The combined data file also enabled the team to assess eligibility for CSU and, through ESC, for UC.

## E. Analysis of Results

RTI analyzed the evaluated transcript data, combined with student information from CDE, to estimate the proportion of 2015 seniors eligible for admission to the UC and CSU systems and the eligibility rates within subgroups defined by gender, race, ethnicity, and geographic region.

To track changes in eligibility rates over time, RTI compared the eligibility rates of 2015 graduates with those of earlier cohorts as estimated by CPEC for the classes of 2007 and 2003.

RTI used design-based weights (based on probability of selection) to correct for differences between the schools providing data and California public high schools as whole. With a constrained logistic model, the response propensity was predicted using selected school characteristics that can be observed for both respondents and nonrespondents and that are thought to be associated with the propensity. RTI confirmed that the distribution of students by race and ethnicity and by school type in the weighted sample is the same as the distribution of students by race and ethnicity and by school type for all California public high schools.

Eligibility of students for UC via the ESC pathway was determined using “a-g” completion information from TES, GPA information from TES, and test score information provided by ACT and the College Board via CDE. Using UC Index Score information from fall 2015, RTI calculated UC Index Scores for all graduates based on their SAT or ACT information and GPA. Graduates who completed “a-g” requirements and whose UC Index Score placed them in the upper 9% range were identified as eligible for UC via ESC.

Eligibility of students for UC via the ELC pathway was also determined using “a-g” completion information from TES, GPA information from TES, and test taking information provided by CDE. Graduates who completed “a-g” requirements and who had a valid SAT or ACT score were ranked within their schools by GPA. Students falling into the upper 9% within their schools were identified as eligible for UC via ELC.

Eligibility of students for UC via the ETR pathway was determined using data provided by the UC Office of Admissions. Only students who were admitted via ETR are considered eligible for purposes of this study. A list of students who graduated from a California public high school in 2014–15, applied to UC as freshmen for fall 2015, and were admitted via the ETR pathway were provided to RTI to be included in eligibility estimates for UC.

Eligibility of students for CSU was determined using “a-g” completion information from TES, GPA information from TES, and test score information provided by CDE. Graduates who completed “a-g” requirements and who had a GPA of 3.0 or higher were considered eligible for CSU. Graduates who completed “a-g” requirements and had a GPA between 2.00 and 2.99 were considered eligible if they had an SAT or ACT score that qualified them as eligible according to the CSU Eligibility Index for fall 2015.



## **A. TECHNICAL APPENDIX: SAMPLING FRAME AND STRATIFICATION**

The target population for this survey was the graduating class of 2015 from all California public high schools classified as comprehensive, alternative, continuation, or charter schools. The sample was a stratified cluster sample of public high schools in California. Schools were divided into strata based on demographic characteristics, student performance, and region. Schools were selected to participate in the survey (provide transcripts to TES) at random within each stratum. Each selected school was treated as a cluster of students for the sample. Details for all the sampling procedures are given in the sections below.

In the selected schools, the online transcripts for all seniors<sup>8</sup> were reviewed to determine whether each senior was eligible for admission to UC and/or CSU, based on the current admission criteria. The eligibility status of each sampled graduate was assessed; the (weighted) percentage of graduates was used for comparison with the 12.5% (UC) and 33.3% (CSU) guidelines set forth in the Master Plan.

The sample was designed to be large enough to estimate the two eligibility rates with a 95% confidence interval of plus or minus 2.1 percentage points, when estimating the eligibility rates for all graduates as a group. After accounting for additional sampling and design effects, the margin of error for the combined ESC/ELC rate of UC eligibility was 3.0%. When the eligibility rates are estimated for subgroups, the confidence intervals will be larger, as expected.

Based on the 2007 response rates, an initial sample of 220 schools was chosen to yield 165 contributing schools. Implicit stratification used a serpentine sort and sequential sampling. Because the response rate was lower in the current study than in the prior study, a second sample of 121 schools was drawn to reach the target number of schools and transcripts. The strata definitions and characteristics are shown in table A1. The summary statistics for each sample are in tables A2 and A3.

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<sup>8</sup> Some schools excluded nongraduates from the set of submitted transcripts, so nongraduates are excluded from the analysis and CDE enrollment numbers establish the denominator from which eligibility rates are estimated.

**Table A1. Characteristics of sampling strata**

Stratum	Race/ethnicity	ELL	"a-g" Completion	API	# Schools	# 12 <sup>th</sup> -graders
1	URM: >90%	High: >10.3%	High: >3.3%	Medium/High: >679	101	25,951
2	URM: >90%	High: >10.3%	High: >3.3%	Low: <=679	84	16,494
3	URM: >90%	High: >10.3%	Low: <=3.3%	Medium/High: >679	41	15,629
4	URM: >90%	High: >10.3%	Low: <=3.3%	Low: <=679	159	19,728
5	URM: >90%	Low: <=10.3%			38	8,319
6	URM: >50%, <= 90%	High: >10.3%	High: >3.3%	High: >772	49	14,554
7	URM: >50%, <= 90%	High: >10.3%	High: >3.3%	Medium: >679, <=772	147	44,233
8	URM: >50%, <= 90%	High: >10.3%	High: >3.3%	Low: <=679	47	9,640
9	URM: >50%, <= 90%	High: >10.3%	Low: <=3.3%	Medium/High: >679	92	22,771
10	URM: >50%, <= 90%	High: >10.3%	Low: <=3.3%	Low: <=679	267	33,593
11	URM: >50%, <= 90%	Low: <=10.3%	High: >3.3%	High: >772	89	31,956
12	URM: >50%, <= 90%	Low: <=10.3%	High: >3.3%	Low/Medium: <=772	78	25,919
13	URM: >50%, <= 90%	Low: <=10.3%	Low: <=3.3%	Medium/High: >679	75	17,115
14	URM: >50%, <= 90%	Low: <=10.3%	Low: <=3.3%	Low: <=679	81	6,726
15	URM: <= 50%	High: >10.3%	High: >3.3%		59	21,245
16	URM: <= 50%	High: >10.3%	Low: <=3.3%		41	4,229
17	URM: <= 50%	Low: <=10.3%	High: >3.3%	High: >772	331	126,369
18	URM: <= 50%	Low: <=10.3%	High: >3.3%	Low/Medium: <=772	72	10,278
19	URM: <= 50%	Low: <=10.3%	Low: <=3.3%	High: >772	94	8,198
20	URM: <= 50%	Low: <=10.3%	Low: <=3.3%	Medium: >679, <=772	100	9,550
21	URM: <= 50%	Low: <=10.3%	Low: <=3.3%	Low: <=679	128	4,752
Total					2,173	477,249

Note: ELL = English language learners; API = Academic Performance Index; URM = Under-represented minority.

**Table A2. Sample 1 summary statistics**

Stratum	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	12	5.45	12	5.45
2	8	3.64	20	9.09
3	7	3.18	27	12.27
4	9	4.09	36	16.36
5	4	1.82	40	18.18
6	7	3.18	47	21.36
7	20	9.09	67	30.45
8	4	1.82	71	32.27
9	11	5	82	37.27
10	15	6.82	97	44.09
11	15	6.82	112	50.91
12	12	5.45	124	56.36
13	8	3.64	132	60
14	3	1.36	135	61.36
15	10	4.55	145	65.91
16	2	0.91	147	66.82
17	58	26.36	205	93.18
18	5	2.27	210	95.45
19	4	1.82	214	97.27
20	4	1.82	218	99.09
21	2	0.91	220	100

**Table A3. Sample 2 summary statistics**

Stratum	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	9	7.44	9	7.44
2	6	4.96	15	12.4
3	5	4.13	20	16.53
4	7	5.79	27	22.31
5	3	2.48	30	24.79
6	4	3.31	34	28.1
7	12	9.92	46	38.02
8	3	2.48	49	40.5
9	7	5.79	56	46.28
10	8	6.61	64	52.89
11	12	9.92	76	62.81
12	6	4.96	82	67.77
13	4	3.31	86	71.07
15	2	1.65	88	72.73
16	1	0.83	89	73.55
17	29	23.97	118	97.52
18	2	1.65	120	99.17
19	1	0.83	121	100

### A. Calculation of Sampling Weights

RTI created sample weights to account for differential probabilities of selection and different completion rates for each stratum. Post-stratification weighting was used to account for the fact that some schools were more likely than others to submit transcripts. Post-stratification weights have the effect of producing a weighted sample that matches the known characteristics of 2014–15 graduates in terms of race and ethnicity, gender, English proficiency, socioeconomic disadvantage, course-taking, and

ACT/SAT scores -- minimizing the chance that differential response rates could introduce a systematic bias.

## B. Estimates of Eligibility

The final calculation of eligibility is a weighted average of the observed eligibility rates based on the rules applied by UC and CSU, with the following adjustment.

UC considers students admitted through the ETR process to be eligible for the purposes of this report. The UC Office of Admissions provided RTI with a complete list of ETR admits, by school, so no estimation was necessary for this group. ETR rates were added to the overall UC eligibility rates and for each category for which disaggregation was possible — without the measurement error associated with the sampling methodology applied to all other estimates.

Graduates may have been identified with more than one race category in both the data from CDE and UC Office of Admissions. These multiracial graduates could not be included in the longitudinal view of eligibility because comparable classification was not possible before California adopted new federal data standards related to reporting of race and ethnicity in 2009. The 2015 eligibility estimates for both UC and CSU are included in table A5. Estimates for graduates of Latino ethnicity are calculated separately from estimates by race categories. Therefore, students identifying as Latino were also included in estimates by race (if information on their race was not missing).

Note: CDE data on SAT and ACT do not identify students by the California statewide student identifier and cannot be matched perfectly with other data used for this report. Using standard practice for “fuzzy matching,” RTI matched approximately 40% of students with an SAT or ACT score (or both). The known rate of SAT/ACT-taking in 2014–15 was approximately 45%, indicating that RTI’s methodology produced similar results to a CDE standard of 85%. Post-stratification weights were adjusted to account for unmatched test score data.

**Table A4. 95% confidence intervals**

	Percent Eligible		Margin of Error, Percentage			
	2007	2015	2007		2015	
<b>University of California</b>						
All graduates	13.4	<b>13.9</b>	12.3	–	14.4	<b>12.3</b> – <b>15.5</b>
Male	11.2	<b>11.9</b>	10.2	–	12.3	<b>10.3</b> – <b>13.5</b>
Female	15.3	<b>16.1</b>	14.2	–	16.4	<b>14.3</b> – <b>17.9</b>
Latino	6.9	<b>8.5</b>	6.3	–	7.6	<b>7.8</b> – <b>9.2</b>
Asian American	29.4	<b>30.7</b>	25.3	–	33.6	<b>26.8</b> – <b>34.7</b>
White	14.6	<b>11.9</b>	12.5	–	16.8	<b>10.1</b> – <b>13.7</b>
African American	6.3	<b>6.5</b>	4.9	–	7.6	<b>5.4</b> – <b>7.6</b>
American Indian	2.4	<b>6.8</b>	1.0	–	4.0	<b>5.4</b> – <b>8.2</b>
<b>California State University</b>						
All graduates	32.7	<b>40.8</b>	30.9	–	34.5	<b>37.2</b> – <b>44.4</b>
Male	27.3	<b>35.3</b>	25.3	–	29.3	<b>31.9</b> – <b>38.8</b>
Female	37.6	<b>46.5</b>	35.8	–	39.4	<b>42.5</b> – <b>50.6</b>
Latino	22.5	<b>31.9</b>	20.7	–	24.3	<b>29.8</b> – <b>34.1</b>
Asian American	50.9	<b>64.0</b>	46.0	–	55.7	<b>58.4</b> – <b>69.3</b>
White	37.1	<b>39.8</b>	32.7	–	41.6	<b>35.3</b> – <b>44.5</b>
African American	24.0	<b>30.0</b>	19.7	–	28.4	<b>26.8</b> – <b>33.4</b>
American Indian	12.1	<b>34.7</b>	5.0	–	19.0	<b>31.4</b> – <b>38.2</b>

**Table A5. Eligibility rates for graduates with unknown race or multiple race categories: 2015**

	UC	CSU
Race unknown	10.8	29.5
More than one race	17.3	49.7

NOTE: UC = University of California; CSU = California State University. Approximately 74,400 graduates were of unknown race in 2015. Approximately 18,700 graduates identified as more than one race.