



University Eligibility Study for the Class of 2003

May 2004

The Postsecondary Education Commission, the California State University, and the University of California conducted a study to estimate the proportion of public high school graduates who meet the admission requirements for the two university systems.

The study found that 28.8% of the high school graduating class of 2003 were eligible for admission to the California State University and 14.4% were eligible for the University of California.

Eligibility rates for African American and Latino graduates have shown significant improvement since the Commission conducted its last study in 1996, but they are still well below the rates for Whites and Asians.

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The Postsecondary Education Commission is a citizen board established to coordinate the efforts of California's colleges and universities and to provide independent analysis and recommendations to the Governor and Legislature. More information on the Commission, including links to Commission publications, is available at www.cpec.ca.gov.

Executive Summary

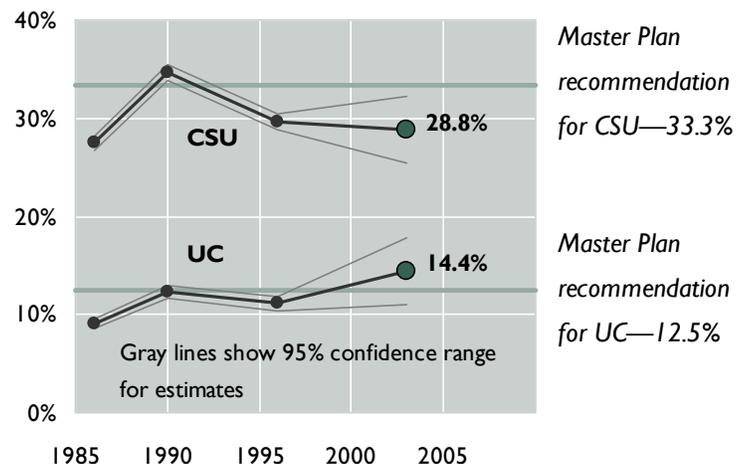
Since 1983, the California Postsecondary Education Commission has conducted five studies of the university eligibility of public high school graduates. The purpose of the studies is to estimate the proportion of California public high school graduates who meet the admission requirements of the California State University and the University of California.

Eligibility studies are conducted by collecting a random sample of transcripts from high schools throughout the state. Each transcript is reviewed by university staff to see if the pattern of courses, grades, and test scores would make the student eligible for admission. This study examines the university eligibility of the high school graduating class of 2003. Schools were contacted in May 2003 and transcripts were collected over the following several months. Nearly 16,000 transcripts from 48 schools were evaluated.

The eligibility rates estimated from this sample show that the eligibility rate for CSU is about the same as it was in the Commission's 1996 study, while the rate for UC has increased slightly. As in previous studies, the results show substantial differences between racial and ethnic groups. Eligibility rates for African American and Latino graduates

Eligibility rates

Estimates from studies in 1986, 1990, 1996 and 2003



have improved since 1996, but are still well below the rates for Whites and Asians. The UC eligibility rate for African American graduates rose from 2.8% in 1996 to 6.2% in 2003. The rate for Latinos increased from 3.8% to 6.5%.

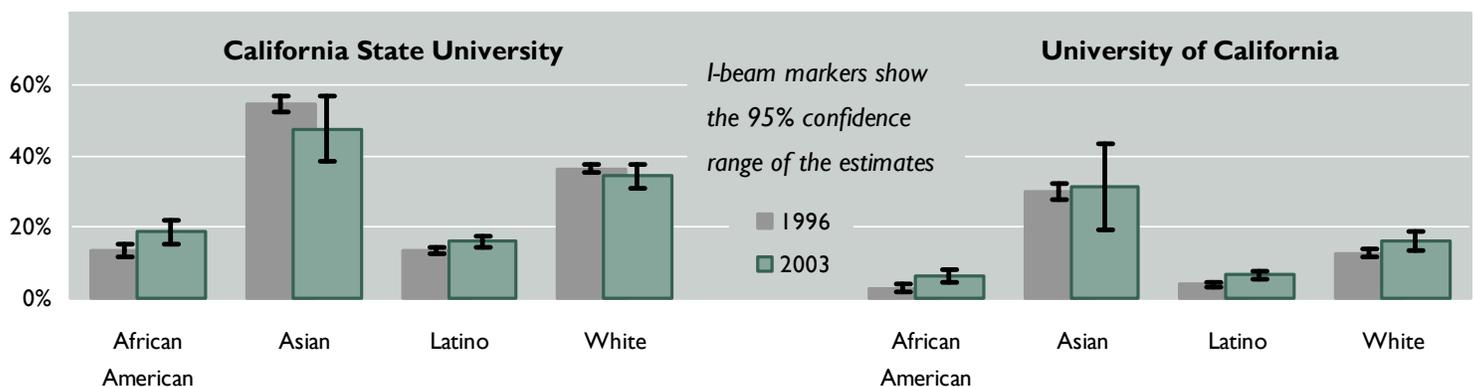
All eligibility rates from this study are estimates based on a sample of transcripts. The graphs and tables show the 95% confidence range of the estimates. These ranges show, for example, that there is 95% confidence that the true value of the eligibility rate for CSU lies between 25% and 32%.

Any comparisons using these figures should allow for the confidence range of these estimates. For example, the estimated eligibility rate for UC is above the master plan target of 12.5%. However, the factors underlying the confidence range show that there is a 12% chance that the true eligibility rate is actually at or below the master plan target. The confidence ranges for the 1996 and 2003 eligibility rates for CSU overlap, and there is over a 70% chance that the actual rate is unchanged.

The number of graduates eligible for CSU and UC has increased substantially since 1996. In 2003, California public high schools graduated 335,700 students, an increase of 30% from 1996. Of these, 96,700 were eligible for CSU and 48,400 were eligible for UC. Full details of the results and comparisons with past eligibility studies are in *Results*, page 5.

Eligibility Rates for Racial and Ethnic Groups

Comparison of 1996 and 2003 results



	Eligibility rates				95% confidence ranges			
	CSU		UC		CSU		UC	
	2003	1996	2003	1996	2003	1996	2003	1996
All graduates	28.8%	29.6%	14.4%	11.1%	25–32%	29–30%	11–18	10–12%
African American	18.6%	13.2%	6.2%	2.8%	15–22%	11–15%	5–8%	2–4%
Asian	47.5	54.4	31.4	30.0	39–57	52–57	19–43	28–32
Latino	16.0	13.4	6.5	3.8	14–18	12–14	5–8	3–5
White	34.3	36.3	16.2	12.7	31–38	35–37	13–19	12–14

In all figures presented in this report, the Asian category includes Asians, Pacific Islanders, and Filipinos

Eligibility Requirements for CSU and UC

Both university systems base their eligibility requirements for freshmen admission on courses completed at high school and scores on the SAT or ACT tests. Different requirements apply to students transferring from community colleges. The universities also admit some students under special admission or admission by exception. These include athletes, students with exceptional talent in the fine arts, and students who are educationally or economically disadvantaged. These students are not included in the eligibility estimates in this report.

Coursework and test scores

To be eligible, a student must have completed a required pattern of high school courses and achieved a sufficiently high grade point average (GPA). The subject requirements for this coursework, known as the *a–g* requirements are now the same for both university systems.

The score needed on the SAT or ACT depends on the student's GPA. Students with a GPA of 3.0 are eligible for CSU without taking these tests. Students with a lower GPA need a qualifying score on the SAT I or ACT (see table, next page).

UC requires a qualifying test score for all students. This score is calculated from the SAT I or ACT and SAT II tests in mathematics, writing and a third subject. The score needed depends on the student's GPA. Students with lower GPAs need higher test score.

Other paths to eligibility for UC

UC has two other paths to eligibility. Under *Eligibility in the Local Context* (ELC), high school juniors in the top 4% of their class are eligible, regardless of their test scores and senior year grades. These students must have completed 11 of the required 15 *a–g* units by the end of their junior year.

UC identifies these students by asking high schools to provide transcripts for the top 10–12% of their juniors. UC reviews the transcripts to check if the student has completed the required coursework and identify the top 4% according to UC's criteria on how students should be ranked. The computer system developed to collect and review transcripts

What is eligibility?

The eligibility rates presented in this report are based on the number of students who meet the minimum entrance requirements for admission to each system. These figures differ from the number of students who are admitted to or actually enter UC and CSU.

Not all eligible applicants are admitted to the campus or program of their choice. Many programs have more eligible applicants than there are places. Admission to UC is based on a comprehensive review of an applicant's academic preparation and other accomplishments. Students admitted to the most popular programs at the most sought-after campuses typically have grades and test scores well above the minimum eligibility requirements and have completed additional coursework.

Eligible applicants who are not admitted to the campus of their choice are placed in UC's referral pool and are provided an opportunity to enroll at another campus.

CSU also uses supplemental criteria to admit applicants for oversubscribed, or impacted, programs and campuses. These criteria include grades and test scores, special talents and socioeconomic disadvantages. Eligible applicants who are not admitted to a program of their choice are redirected to other campuses. CSU designates service areas for its campuses and guarantees that eligible applicants from high schools in a campus's service area will be admitted to some program at that campus.

Not all students who are admitted actually enter UC and CSU. Some may accept offers from independent universities or out-of-state universities, or may not go to university at all.

For these reasons, entry rates are lower than eligibility rates. In recent years, 7–8% of public high school graduates actually entered UC and about 10% actually entered CSU.

for ELC formed the basis of the system used to evaluate transcripts for this eligibility study.

Under *Eligibility by Examination Alone*, a student without the required coursework is eligible with a sufficiently high score in the SAT or ACT. The student must have an SAT I score of 1,400 or an ACT score of 31, and have a combined score of 1,760 in the three SAT II subject tests, with no score lower than 530.

A separate UC admission program is the Dual Admission Program (DAP), which was effective for the class of 2004. In this program, students in the top 12½% of their high school graduating class but are not eligible for admission can be admitted to UC if they first complete a transfer program at community college. Because this program was only for the class of 2004, and is for students who are not eligible for freshmen admission, DAP students are not included in the eligibility estimates in this report.

Use of eligibility studies

Eligibility studies have a variety of uses. The 1960 Master Plan for Higher Education (see *References*, page 22) recommended that CSU select its freshmen from the top third of California's public high school graduates and that UC select from the top eighth of public high school graduates.

Eligibility studies provide a basis for determining whether the systems need to adjust their eligibility requirements so that the desired proportion of the high school graduating class will be eligible.

Reviewing transcripts sampled from the entire graduating class also shows why students do not qualify for admission. This information can be used to identify obstacles, such as limited course offerings, that prevent some students from qualifying.

Past studies have also given estimates of eligibility rates for regions and for ethnic groups. These figures allow policymakers to assess the extent to which the ability to attend public universities varies from place to place in California and to see if progress has been made in giving all students from all racial and ethnic groups opportunities to qualify for admission to university.

Subject requirements, 2003

Subject	Years required
a. History and social science	2
b. English	4
c. Mathematics	3
d. Laboratory science	2
e. Foreign language	2
f. Visual and performing arts	1
g. College preparatory electives	1

UC requires that 7 of these 15 units be done in the junior and senior years

Test score requirements, 2003

Student's GPA (a)	Test score needed		
	For CSU		For UC Total (c)
	SAT I	ACT	
2.0	1,300	30	–
2.2	1,140	26	–
2.4	980	22	–
2.6	820	18	d
2.8	660	14	4,640
3.0	b	b	3,840
3.2	–	–	3,408
3.4	–	–	3,152
3.5+	–	–	3,120

The table is condensed from the universities' actual requirements, which are based on GPA brackets calculated to two decimal places. For example, a student with a GPA of 2.85 would need an SAT I of 620 to be eligible for CSU or a total score of 4,384 to be eligible for UC.

Complete information is available at the universities' web sites.

- a GPA in courses meeting the subject requirements taken in grades 10–12
- b CSU does not require a test for students with a GPA of 3.00 or more
- c Total score is [SAT I math+verbal] + [2x(SAT II writing+SAT II math+third SAT II)]
ACT scores can be converted to an SAT I equivalent
- d Students with a GPA below 2.80 are not eligible for admission to UC

Results

The transcripts collected from schools were reviewed by university staff to determine each student's eligibility. The results of this review were used to estimate statewide eligibility rates using statistical procedures that reflected the way that these transcripts were sampled. The Commission, CSU, and UC conducted analyses of the sample results independently. All three analyses gave the same results, confirming that the data had been interpreted correctly.

The transcripts were collected only from public comprehensive high schools, so the estimates obtained directly from the sample were eligibility rates for comprehensive high schools. The Commission made a separate estimate of the number of eligible graduates from continuation and alternative high schools. These estimates were combined with the estimates for comprehensive high schools to give eligibility rates expressing the total number of eligible graduates as a percentage of the graduates of all California public high schools. These eligibility rates are comparable to the rates estimated in past eligibility studies. The procedure is described in Appendix A, page 13.

The table on the next page shows the eligibility rates and eligibility pool for all California public high schools. Overall, 28.8% of public high school graduates were eligible for CSU and 14.4% were eligible for UC. The eligibility rate for CSU was about the same as it was in 1996. However, the rate for UC has risen slightly from 1996, when it was 11.1%. Eligibility rates for male graduates are lower than those for female graduates. The gap is particularly wide for CSU, where the rate for male graduates is 24%, compared to 33% for female graduates.

Racial and ethnic groups

Eligibility rates vary substantially between racial and ethnic groups. Only 6.2% of African American graduates and 6.5% of Latino graduates were eligible for UC, compared with over 31% of Asian graduates and 16% of White graduates. The eligibility rates for CSU show a similar pattern. Only 19% of African Americans and 16% of Latino graduates were eligible, compared to 48% of Asians and 34% of whites.

The eligibility rates for African American and Latino graduates are much higher than the estimates from the 1996 eligibility study. A consideration of the confidence ranges for both studies shows that it is likely that these increases reflect a real change rather than the uncertainty inherent from estimating a value from a sample of transcripts. The chance that the CSU and UC eligibility rates for African Americans is actually unchanged since 1996 is only about 3%. Similarly, there is only a 5% chance that the CSU eligibility rate

Confidence ranges

When making any comparisons using the results of this study, the confidence ranges are just as important as the estimated values.

The eligibility rates are estimates based on a sample of transcripts. The true value is unknown and cannot be determined unless every transcript from the graduating class is reviewed. However, the variation in eligibility within the sample can be used to estimate a confidence range for the estimated eligibility rates.

The graphs and tables in this section and at the front of this report show the 95% confidence range of the estimates. There is 95% confidence that the true value of the eligibility rate lies within these ranges. For example, the range for the overall eligibility rate for CSU shows that although the figure of 28.9% is only an estimate based on the sample, there is 95% confidence that the true eligibility rate lies between 25% and 32%.

The factors underlying the confidence ranges can be used to estimate the chance that a difference between two estimated values reflects a difference in the true values rather than the uncertainty inherent in a study where data are sampled.

for Latinos is the same as it was in 1996 and less than a 1% chance that the rate for UC is unchanged.

The estimated eligibility rates for American Indian graduates are low, but the confidence ranges for these estimates are very wide. Only 150 American Indians were included in the sample (see page 8). It is not possible to draw any firm conclusions from this study regarding the eligibility rates of American Indian graduates compared with other groups.

The confidence ranges for the estimates for Asian graduates are much wider than those for other racial and ethnic groups. In the schools sampled, Asians had much more variation in eligibility than was the case for other racial and ethnic groups. It was not possible to estimate a figure generalized to all high schools with the same precision as could be done for other groups. The estimated CSU eligibility rate for Asians dropped from 54% in 1996 to 48% in 2003. However, there is a 20% chance that there has been no real change in the CSU eligibility rate for Asians and that the difference in the estimates is the result of the uncertainty inherent from sampling.

Racial and ethnic categories

The racial and ethnic categories of students are as reported by schools when providing transcript data.

Definitions of the categories are those used in the California Department of Education's CBEDS system. Latino is an ethnic category and includes all students of any Spanish culture, regardless of their race. The Asian category includes students of east Asian and south Asian ancestry. The White category consists of students of European, North African, and Middle Eastern ancestry. More information is in the *CBEDS Administrative Manual*.

Throughout this report, figures for Asians include Pacific Islanders and Filipinos.

Eligibility rates and confidence range

	2003	1996	1990	1986
California State University				
All graduates	28.8% 25–32	29.6% 29–30%	34.6%	27.5%
Male	24.0% 20–28	26.3% 25–27%	32.4%	24.8%
Female	33.3 30–37	32.9% 32–34	37.6	30.8
African American	18.6% 15–22	13.2% 11–15%	18.6%	10.8%
American Indian	19.7 10–30	— —	—	—
Asian	47.5 39–57	54.4% 52–57	61.5	50.0
Latino	16.0 14–18	13.4% 12–14	17.3	13.3
White	34.3 31–38	36.3% 35–37	38.2	31.6
University of California				
All graduates	14.4% 11–18	11.1% 10–12%	12.3%	9.1%
Male	12.6% 9–16	9.7% 9–11%	11.6%	8.9%
Female	16.2 13–19	12.6% 12–14	13.3	9.5
African American	6.2% 5–8	2.8% 2–4%	5.1%	2.3%
American Indian	6.6 3–10	— —	—	—
Asian	31.4 19–43	30.0% 28–32	32.2	24.9
Latino	6.5 5–8	3.8% 3–5	3.9	3.1
White	16.2 13–19	12.7% 12–14	12.7	10.1

Figures for Asians include Pacific Islanders and Filipinos. Eligibility rates for American Indians were not estimated in past studies.

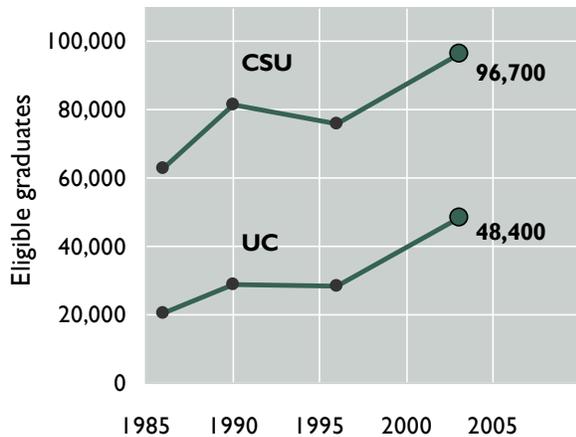
Confidence ranges are between lower 95% confidence limit and upper 95% confidence limit. Confidence ranges for the 1990 and 1986 studies are similar to those in the 1996 study.

Eligibility pool

Applying the eligibility rates to the number of students graduating from California public high schools gives an estimate of the total number of students eligible, or eligibility pool, for each system. The eligibility pool is based on the 335,700 students graduating from California public comprehensive high schools, continuation schools, and alternative schools.

The number of graduates eligible for CSU was an estimated 96,700 in 2003, up by 27% from 1996. The eligibility pool for UC was 48,400, an increase of 70% from 1996. This increase is the result of both the growth in the number of students graduating from public high schools and the increase in the UC eligibility rate from 11.1% to 14.4%. The eligibility pools are based on the estimates of the eligibility rates and have similar confidence ranges.

Growth in the eligibility pool Estimates from current and past studies



California public high school graduates

	2003	1996	1990	1986
All graduates	335,700	257,400	235,200	227,800
Male	160,800	123,500	115,800	111,500
Female	174,800	133,900	119,300	116,300
African American	24,100	19,200	17,300	18,200
American Indian	3,100	2,300	1,900	1,700
Asian	48,400	37,300	32,800	24,000
Latino	114,300	78,000	54,900	43,300
White	142,800	120,600	128,300	140,800
Multiple/Unknown	2,900	—	—	—

Graduates of public comprehensive high schools, public continuation schools, and public alternative schools. Excludes graduates of public special schools, county community schools, juvenile court schools, and similar institutions.

Columns may not total because of independent rounding.

Eligibility pool

	2003	1996	1990	1986
California State University				
All graduates	96,700	76,200	81,400	62,700
Male	38,600	32,500	37,500	27,700
Female	58,300	44,100	44,900	35,800
African American	4,500	2,500	3,200	2,000
American Indian	600	—	—	—
Asian	23,000	20,300	20,200	12,000
Latino	18,300	10,500	9,500	5,800
White	49,000	43,800	49,000	44,500
University of California				
All graduates	48,400	28,600	28,900	20,700
Male	20,200	12,000	13,400	9,900
Female	28,300	16,900	15,900	11,000
African American	1,500	500	900	400
American Indian	200	—	—	—
Asian	15,200	11,200	10,600	6,000
Latino	7,400	3,000	2,100	1,300
White	23,100	15,300	16,300	14,200

Study Procedure

Transcripts for the 2003 study were collected from schools electronically using a system developed by UC's admissions office. This approach is a departure from past studies when transcripts were collected by mail and processed manually. Electronic data collection avoids the high cost of handling and checking the materials received from schools and allows some of the evaluation to be automated, since the transcripts are received in a computer readable form.

Conducting the study in this way means that the results are not exactly the same as in past studies. The estimates of the eligibility rates are less precise, mainly because transcripts were collected from a much smaller number of schools than in past studies. It was not possible to estimate regional eligibility rates as was done in earlier studies. Nevertheless, the schools from which transcripts were collected are representative of all California public high schools and the results provide a good estimate of the proportion of public high school graduates eligible for UC and CSU.

Electronic data collection

The system to collect and process transcripts was developed for UC's Eligibility in the Local Context (ELC) program. In order to reduce the cost of processing transcripts for this program, UC developed a system to extract data from the computer applications used by schools to maintain their student records. These computer applications store transcript information as a table showing the courses taken and grades achieved by each student.

The ELC system allows schools to send this data to UC over the Internet. The system then puts the transcript information in a standard format where it can be viewed on a secure web page by admissions staff. This presentation of student information is much easier for staff to use than transcripts printed at schools, which are in a wide variety of formats.

The ELC system also does much of the routine handling needed in the evaluation process. Courses that the student has taken are compared with UC's list of high school courses that meet its subject requirements to check if the student is progressing on the coursework required for admission. The student's grade point average is calculated using UC's rules on which courses contribute to the GPA and issues such as how to count repeated courses.

Although the ELC system was designed to evaluate transcript data for juniors, it could be adapted to review data for high school graduates for the eligibility study. Because UC and CSU aligned their coursework requirements in Fall 2003, the system could be adapted to evaluate eligibility for both university systems.

Schools that can use this system

In 2003, the ELC system was able to extract data from schools maintaining their course and grade information using *SASixp* and custom applications used by Kern Union High School District and Los Angeles Unified School District. These 400 schools account for about 40% of California high school graduates.

An analysis by the Commission confirmed that these schools cover the range of factors that are linked to eligibility for university and that a representative sample of graduates could be collected from them. Commission staff used the results of the 1996 study to estimate eligibility rates for individual schools. The distribution of eligibility rates for the schools that could be

Past eligibility studies: mail and paper

In past eligibility studies, transcripts were collected by mail and evaluated manually. The Commission wrote to every high school in the state, including alternative and continuation schools, asking each school for a sample of transcripts from their graduating class. Approximately 16,000 transcripts were requested from about 1,400 schools. This sampling plan was driven by the desired level of precision of the study, which was to estimate a statewide eligibility rate with a 95% confidence range of 1 percentage point and to estimate rates for regions and for racial and ethnic groups with a 95% confidence range of 3 percentage points.

Data collection was a significant burden to all concerned. The Commission sent each school sampling instructions to ensure that the transcripts would be chosen at random and the desired number of transcripts would be chosen. School staff had to compile a list of their graduating class, select students from this list according to the sampling instructions, print or copy the transcripts for these students, and compile other information such as test scores or ethnicity in cases where it was not shown on the transcript. When these materials were received, staff had to check the transcripts to ensure that they were selected according to the sampling instructions. In many cases, staff had to contact the school and ask for additional materials, because the transcripts were not selected correctly or not all of the necessary information was provided.

Some schools did not respond to the request. Follow-up letters had to be sent and eventually, Commission staff contacted the nonresponding schools personally. In some cases, these contacts led to extensive negotiations

with school and district staff regarding issues such as the utility of the study, the confidentiality of student information, and the burden that the study imposed on schools. Although most of the schools responded promptly, the schools needing special handling took up a large amount of staff time, since the Commission was attempting to collect transcripts from every high school in the state. In the 1996 study over 1,200 schools responded, sending 15,000 transcripts. Contacting the schools and checking and filing the materials received took an estimated 2.1 person years of staff time.

After the transcripts had been collected they had to be reviewed by university admission staff. The transcripts were scanned, information identifying individual students was removed and the scanned images were placed on a protected web site. UC and CSU staff determined each student's eligibility by viewing the transcripts on this web site.

Although the image of each transcript could be viewed on a computer screen, the course and grade information was not in a computer-readable form. Evaluators had to review each transcript image as if it were a paper transcript. The viewing system saved the time and effort of distributing copies of the transcripts for review, but issues such as the wide variation in transcript formats and the differing conventions for naming courses still remained. Evaluation was a laborious process, taking 5–20 minutes per transcript. It was very difficult to schedule admission staff for this work, because it diverted them from their responsibilities in evaluating actual applications. The cost of the professional staff needed to do this work was over \$250,000 in the 1996 study.

sampled closely matches the distribution for the comprehensive high schools in the 1996 study (see graphs, next page). Comparisons of other statistics, such as actual university entry rates and Academic Performance Index (API), also show that these schools are similar in character to the entire population of high schools. More details are in Appendix A.

Commission staff also conducted an analysis to see if any other factors should be considered when selecting the sample of schools. This analysis (see page 16) showed that a school's API and test taking rate are adequate indicators of eligibility. When these characteristics are considered, adding other factors, such as whether a school is in a remote area, do not make any difference to eligibility rate. If the sample covers the range of API, then it covers the range of university eligibility and can be used to give an accurate estimate of statewide eligibility rates.

Implications for the study

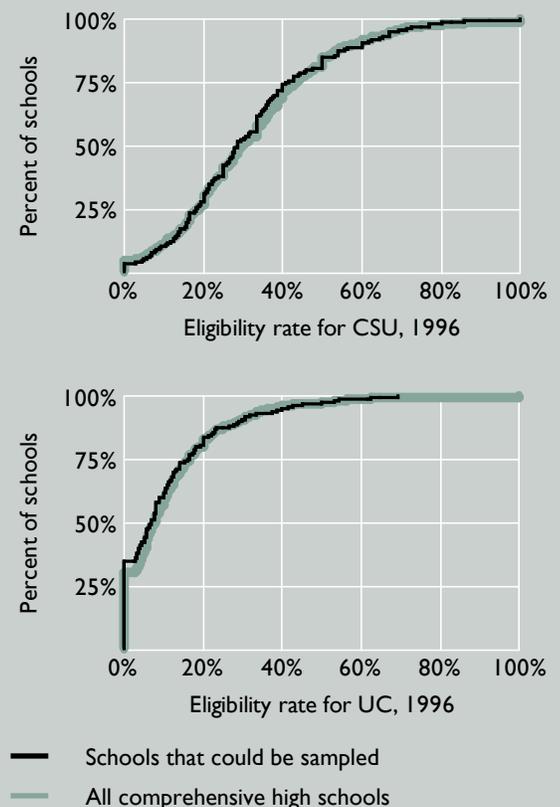
Collecting transcripts electronically has several implications for the study. Most of the effort of data collection was establishing contacts with schools and making arrangements for data transmission, so sampling was done differently from past studies. Instead of taking a few transcripts from every school, a sample of schools was selected and all transcripts taken from each selected school.

Because of this sampling method, the precision of the study was lower than in past studies. Even though transcripts are collected easily once arrangements have been made with the school, the number that could be reviewed was limited by the availability of university staff. Transcript review could not begin until October 2003 when the viewing system was ready and had to be completed in February 2004 to leave enough time to analyze the results. The sample had to be limited to about 16,000 transcripts, which is all that could be reviewed in the available time. Although the number of transcripts in the sample is similar to that in previous studies, precision is lower because the transcripts were taken from a relatively small number of schools, rather than being sampled from all schools in the state.

Continuation and alternative schools were excluded from the sample. Very few graduates of these schools are eligible for university admission, so the data from these schools makes very little contribution to the overall results. Because the number of schools contacted is limited, collecting data from continuation and alternative schools would mean that fewer comprehensive schools could be sampled. The most useful sample is one collected by sampling transcripts from comprehensive schools. The contribution of continuation and alternative schools to the statewide eligibility rates was estimated separately using the procedure described on page 13.

Despite these limitations, the advantages of collecting transcripts electronically outweigh the disadvantages. This approach makes more efficient use of staff at the Commission, UC, and CSU and provides useful experience for future studies. As UC develops its system to increase the proportion of transcripts that can be evaluated automatically and to collect transcripts from more schools, the sample size can be increased at low cost. Electronic data collection presents the opportunity of conducting eligibility studies more frequently. Continuing to collect transcripts by mail means that eligibility studies will always be expensive and infrequent.

Distribution of eligibility rates 1996 Study



The graphs show the cumulative distribution of eligibility rates. The upper graph shows that 25% of schools have eligibility rates for CSU of 18% or below and that 75% of schools have eligibility rates of 42% or below.

The lines for the schools that could be sampled are very close to the lines for all high schools, indicating the distributions are very similar.

The study sample

The schools from which transcripts were requested were selected according to a sampling plan developed by a statistical consultant. This sampling plan was designed to yield the most useful results given the constraints on data collection. The highest priorities were to estimate the statewide eligibility rates and the eligibility rates for racial and ethnic groups with the best possible precision. The consultant and Commission staff examined several possibilities before settling on the plan described on page 17.

The study sample consisted of 48 schools with about 16,000 graduates. The sampled schools are representative of all California high schools. The median API of the schools in the sample was slightly lower than the median for all California high schools, but the lower quartile API of the sampled schools was the same as the statewide figure. The percentage of students at the sampled schools taking the SAT was about the same as that for all California high schools. The table below shows statistics comparing the schools in the sample with all California high schools.

Characteristics of schools in study sample

Characteristic	All schools (a)	Schools that could be sampled (b)	Actual sample (c)	
Number of schools	1,005	400	48	a All California comprehensive high schools that had graduates in 2003
Number of graduates, 2003	308,300	130,800	16,400	b Comprehensive high schools that had graduates in 2003 and used SAS/xp or the custom systems by Los Angeles Unified School District and Kern Union High School District.
Median API, 2001	637	631	627	c Schools actually selected. No schools in Kern Union High School District were selected for the actual sample
Median percentage taking SAT, 2001	39%	39%	40%	
Median entry rate to CSU, 2001	10.3%	10.1%	8.5%	
Median Entry rate to UC, 2001	5.3%	5.0%	5.2%	

Transcript Collection and Review

When the decision was made to use UC's ELC system, UC staff began adapting the system so it could be used to collect and evaluate transcript data for graduating seniors. UC developed a computer program that could be downloaded by school staff and used to transmit transcript data for graduates. The evaluation system was modified so that senior-year courses could be checked against UC's and CSU's requirements. Eligibility rules for CSU were programmed into the system. UC made arrangements with the College Board and American College Testing (ACT) to get a file of test scores and developed a system to combine this data with the transcript data.

The 48 schools selected for the sample were contacted in June 2003. The Commission and the state Superintendent of Public Instruction jointly sent a letter announcing the study to the district superintendents and the principals of the selected schools. UC staff contacted the schools and set up telephone appointments where a UC staff member worked with school staff to run the program to transmit data. Some data transmission was completed over the summer, but most was done in October when school staff had time after the busy period at the start of the school year. Data transmission typically took about half an hour of staff time at the school, which is far less than the time needed to compile and mail even a small sample of paper transcripts.

Most schools in the sample were willing to participate in the study. Some of the schools had concerns and initially declined to send UC transcript data. For these schools, the study team identified a university staff member who had an existing relationship with the school. This person worked with the school, encouraging them to participate. By the end of November 2003, all of the schools had agreed to participate in the study. Data collection continued and by February 2004, transcript data had been collected from all 48 schools in the study sample (See table, right).

Evaluation of the transcripts started when the evaluation software was ready in October. The first step was to compile a list of all courses shown on the transcripts received and compare this with a list of courses that meet UC's or CSU's coursework requirements. Courses that could not be matched to this list were investigated to determine whether they met the coursework requirements. When the status of all courses was resolved, computer programs read each student's course data, compared these courses with each system's course requirements, and calculated the GPA according to each university's rules. This information was combined with test scores from the College Board and ACT to make a preliminary determination of the student's eligibility for UC and CSU.

The evaluation program assigned a confidence score to its evaluation of eligibility. Typically, an evaluation was given a high confidence score if all of the courses taken were at the same school and there were no changes in the school's calendar. A low confidence score was given in cases where the student changed schools, or had taken community college courses, or had a mix of quarter and semester courses.

Admission staff from UC and CSU then checked the results for each school. Staff from each system reviewed cases that had a low confidence score, or where the evaluation program had indicated borderline eligibility. A second review was made by a senior staff member and the results from CSU and UC were compared and any inconsistencies were resolved. Updated files of test scores were sent by the College Board and ACT in February 2004 and used to make a final determination of eligibility. Each system completed a final file of results with the eligibility status of each graduate in the sample in March 2004.

Transcripts received

Race or ethnicity	Male	Female	Total
Total	7,695	8,177	15,872
African American	809	973	1,782
American Indian	73	77	150
Asian	1,322	1,366	2,688
Latino	2,269	2,624	4,893
White	3,155	3,063	6,218
Unknown	67	74	141

Appendix A: Study Details

Estimating eligibility rates comparable to those in past studies

The study sample was limited to comprehensive high schools, so the statistical analysis of the sample results gives eligibility rates for comprehensive high schools only. Past eligibility studies gave eligibility rates expressing the number of eligible graduates as a percentage of graduates of comprehensive high schools, continuation high schools, and alternative high schools.

Eligibility rates comparable to those in past studies were estimated by combining the results from the study sample with a separate estimate of the number of eligible graduates from continuation and alternative high schools (C&A schools). The number of eligible graduates of comprehensive high schools was estimated from the sample results and a count of 2003 graduates. These figures were added to the estimate of the eligible graduates from C&A schools to give an estimate of the total eligibility pool. These totals were divided by the total number of graduates to give eligibility rates applicable to all public high schools.

The steps in the process are shown below. Although the estimates for C&A schools are made by a simple calculation based on a ratio from the 1996 results, they are adequate for this purpose because the figures for these schools do not have much effect on the overall rates. For example, even if 600 C&A graduates were eligible for CSU, the eligibility rate would increase only from 28.8% to 28.9%. This is a plausible upper bound for the C&A pool, since to the California Department of Education's data shows that fewer than 800 C&A graduates completed the *a-g* courses in 2003. Making the assumption that no graduates of C&A schools were eligible would lower the eligibility rate by 0.01%. These differences are insignificant compared with the confidence ranges for the estimates.

Step 1. Eligible graduates from public comprehensive high schools only

The eligibility rates from the statistical analysis are applied to a count of the number of graduates of public comprehensive high schools to estimate the number of eligible graduates from these schools.

	Eligibility rate and range from analysis of sample results				Graduates, 2003	Eligible graduates	
	CSU		UC			CSU	UC
All graduates	31.3%	28–35	15.7%	12–19	308,300	96,400	48,300
Male	26.0%	22–30	13.6%	9–18	147,900	38,500	20,100
Female	36.2	32–40	17.6	14–21	160,400	58,100	28,200
African American	20.7%	17–24	7.0%	5–9	21,600	4,500	1,500
American Indian	22.8	12–33	8.1	3–13	2,600	600	200
Asian	49.2	40–59	32.5	20–45	46,700	23,000	15,200
Latino	17.6	16–19	7.2	6–8	103,500	18,200	7,400
White	37.2	34–41	17.5	14–21	131,300	48,900	23,000

Range is between upper and lower 95% confidence limits. The number of eligible graduates is estimated as eligibility rates times graduates. A similar calculation was done for the upper and lower ends of the range, but is not shown here. Full details of the statistical results and calculation are in Appendix B.

Step 2. Eligibility rates for continuation and alternative schools

The 1996 sample results were used to estimate separate eligibility rates for comprehensive high schools and for continuation and alternative schools (C&A) schools.

Item	Value
CSU eligibility rate for all graduates, 1996	
Comprehensive high schools	31.7%
C&A schools	1.1%
Ratio of rate for C&A schools to rate for comprehensive high schools	0.03

None of the students sampled in 1996 were eligible for UC. It seems more reasonable to use the same ratio for both systems than to assume that the UC eligibility rates for C&A schools are all zero. The zero rate for UC may be the result of sampling error. Recent enrollment data shows that each year, 60–100 freshmen aged 20 and under enter UC from C&A schools. The corresponding figure for CSU is 160–260 freshmen.

Using the same ratio for both systems gives a UC eligibility rate for C&A schools that is one third of the CSU rate, which is consistent with the ratio of entrants to each system from C&A schools.

Step 3. Eligible graduates from continuation and alternative schools

The ratio from step 2 was applied to the rates for comprehensive high schools to estimate eligibility rates for C&A schools. These rates were applied to C&A graduates to give eligible graduates of C&A schools. The confidence range was estimated using a similar calculation.

	Graduates, 2003	Continuation and alternative schools			
		Eligibility rate		Eligible graduates	
		CSU	UC	CSU	UC
All graduates	27,300	0.9	0.5	260	120
Male	12,900	0.8	0.4	100	60
Female	14,400	1.1	0.5	160	80
African American	2,500	0.6	0.2	20	0
American Indian	400	0.7	0.2	0	0
Asian	1,700	1.5	1.0	20	20
Latino	10,800	0.5	0.2	60	20
White	11,500	1.1	0.5	120	60

Step 4. Overall eligibility rates

The eligible graduates from steps 1 and 3 were added together and divided by the total number of graduates to estimate the overall eligibility rate for public comprehensive high schools, public continuation schools and public alternative schools. The upper and lower ends of the confidence range were estimated by a similar calculation.

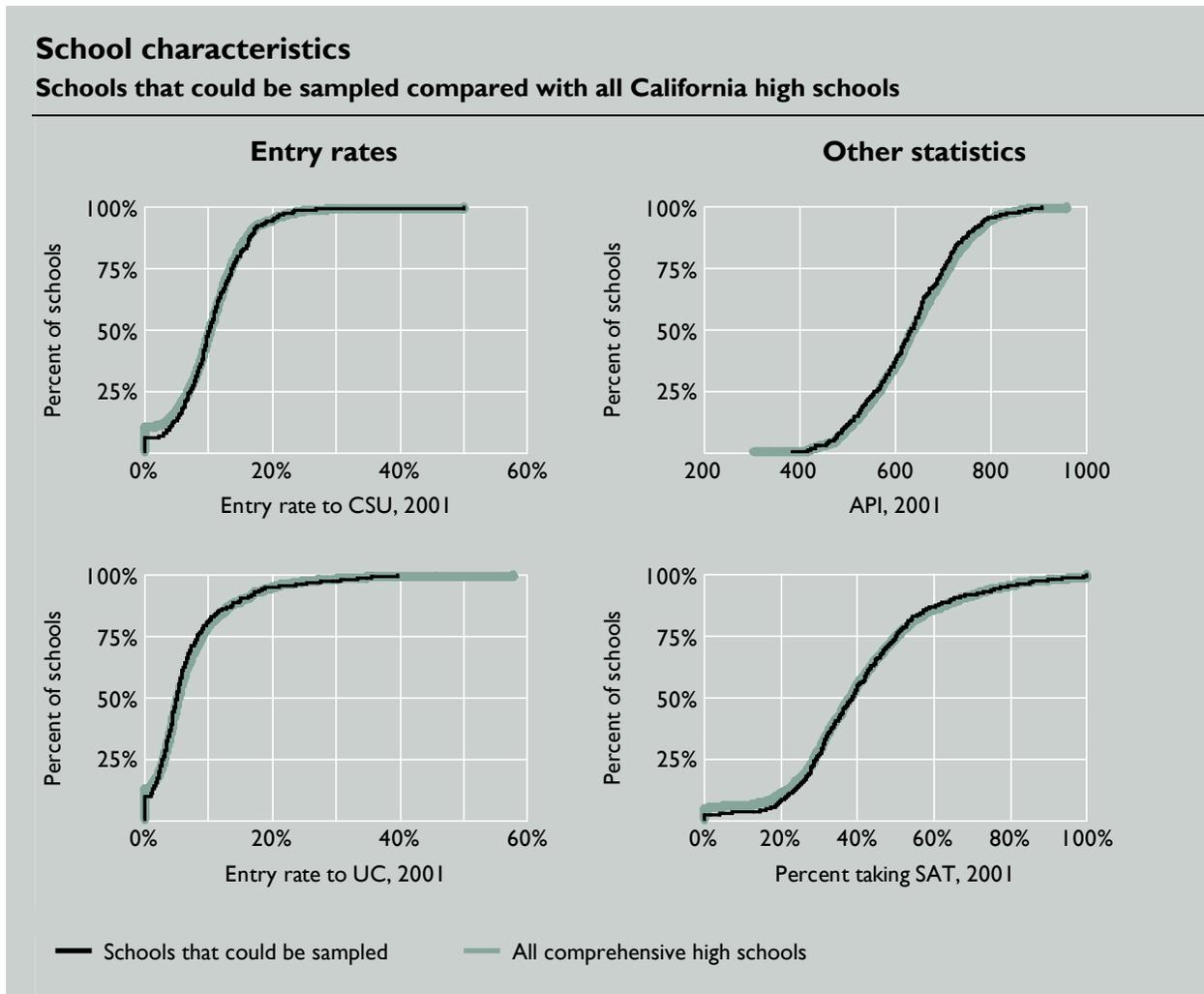
	Total graduates	Total eligible graduates		Overall eligibility rate and range			
		CSU	UC	CSU	UC	CSU	UC
All graduates	335,700	96,700	48,400	28.8%	25–32	14.4%	11–18
Male	160,800	38,600	20,200	24.0%	20–28	12.6%	9–16
Female	174,800	58,300	28,300	33.3	30–37	16.2	13–19
African American	24,100	4,500	1,500	18.6%	15–22	6.2%	5–8
American Indian	3,100	600	200	19.7	10–30	6.6	3–10
Asian	48,400	23,000	15,200	47.5	39–57	31.4	19–43
Latino	114,300	18,300	7,400	16.0	14–18	6.5	5–8
White	142,800	49,000	23,100	34.3	31–38	16.2	13–19

Characteristics of the schools that could be sampled

A variety of statistics confirm that the schools using *SAS/Exp* and the custom applications used by Kern Union High School District and Los Angeles Unified School District are representative of all California high schools.

The graphs below show the distribution of university entry rates, Academic Performance Index (API), and the percent of students taking the SAT. The lines for the schools that could be sampled are very close to the lines for all California high schools, showing that the distribution for these schools closely matches the distribution for all California high schools. Statistics are for 2001, because this was the latest year for which all of this information was available at the time that the analysis was done.

The table shows the median and quartile points of the school eligibility rates and the other school characteristics. All of these points are very close. The medians of the eligibility rates, entry rates, and percent taking the SAT for the schools that could be sampled are all within 1 percentage point of the median for all comprehensive high schools. The median API for the schools that could be sampled is 631, compared with 637 for all high schools.



Schools that could be sampled compared with all California high schools

School characteristic		Lower quartile		Median		Upper quartile	
		Schools that could be sampled	All schools	Schools that could be sampled	All schools	Schools that could be sampled	All schools
Eligibility rate, 1996	For CSU	18%	19%	29%	30%	41%	43%
	For UC	0%	0%	7%	8%	16%	17%
Entry rate, 2001	To CSU	7.1%	6.8%	10.1%	10.3%	13.7%	13.5%
	To UC	2.9%	3.0%	5.0%	5.3%	8.3%	9.0%
Other statistics, 2001	API, 2001	560	567	631	637	702	710
	Students taking the SAT	29%	29%	39%	30%	50%	50%

Notes. The graphs and table show data for schools that had graduates in 2001 and for which this data is available. A total of 930 comprehensive high schools had graduates in 2001, and 390 of these schools were in the samplable category.

The number of schools for which data is shown in each particular table row or graph varies depending on whether the data is available. For example, the data for the 1996 eligibility rates is for the 782 comprehensive high schools that had graduates in 2001 and were in the 1996 study and the 337 schools that could be sampled that had graduates in 2001 and were in the 1996 study.

Developing the sampling plan

The highest priorities for the study were to estimate the overall eligibility rates and the eligibility rates for racial and ethnic groups. The sampling plan was designed to estimate these rates with the best possible precision, given the constraints on the number of schools that could be contacted and the number of transcripts that could be evaluated.

In past studies, the hardest figure to estimate was the UC eligibility rate for African Americans. These students tend to be concentrated in schools that have poor academic performance. In 2002, 30 schools—which were mostly in the poorer areas of Alameda, Contra Costa, and Los Angeles counties—accounted for one quarter of California’s African American high school graduates. Sampling must be conducted carefully to ensure that the sample includes a representative number of African Americans from high schools with more typical academic performance.

The consultant examined a variety of sampling plans where schools were stratified before sampling. Under stratified sampling, schools are placed into groups, or strata, using some criterion, and a sample of schools is picked from each stratum. Stratifying increases the chance that the graduates of the sampled schools are representative of all California high school graduates. Several different statistics were tried as stratification criteria. These included the eligibility rates by ethnicity from the 1996 study, recent university entry rates, SAT test taking rates, and the ethnic composition of the school.

The consultant and the Commission staff tested the sampling plans using a simulation procedure. The 1996 sample results were used to build a table of synthetic eligibility counts for the simulation. For each school in the 1996 study, the Commission calculated eligibility rates by ethnicity as the ratio of the number of graduates eligible to the number of graduates sampled. These rates were applied to a table of graduates by school by ethnicity to give a final table containing a synthetic count of the eligible graduates in each school in each ethnic group.

The sampling plans were tested on this synthetic data. A random number generator was used to pick a sample of schools and the synthetic count of eligible graduates at the selected schools was treated as if it were the evaluation results. Eligibility rates were estimated from this sample using statistical computer procedures. Sampling and estimation was repeated 60 times for each sampling plan, giving 60 different estimates of the eligibility rates and the confidence ranges of the eligibility rates. Sampling plans were assessed by comparing the confidence ranges of the estimated eligibility rates and the variation in the results from sample to sample.

The recommended sampling plan was to stratify schools based on the school's Academic Performance Index (API) and a second criterion using the school's eligibility rate in the 1996 study and the percentage of African American graduates. The API is a measure developed by the California Department of Education to measure school performance (see *References*). Stratifying based on API ensures that, overall, the sample covers a wide range of schools. Stratifying using the second criterion ensures that the African Americans in the sample are from a wide range of schools. Details of the stratification scheme are in the table, below. The number of sampling picks from each stratum was chosen to collect the desired number of transcripts and give the desired tradeoff between the precision of the various eligibility rates. Oversampling from strata A and C increases the precision of the estimates of the UC eligibility rates for African Americans while slightly reducing the precision of the other estimates.

The synthetic data results showed that this sampling plan could be expected to estimate the overall eligibility rate for UC and the African American eligibility rate for UC with a confidence range of 3–4 percentage points. When the sampling plan was completed, Commission staff used a final run of the random number generator to select the actual sample of schools from which transcripts would be collected.

Strata for the recommended sampling plan

Stratum			Number of schools that could be sampled	Number of sample picks (a)	Sampling rate (b)
A	API below median	and school has more than 6% African American graduates and an UC eligibility rate from 1996 of more than 7%	37	10	27.0%
B	API below median	and school does not meet criterion above	180	19	10.6%
C	API median or higher	and school has more than 6% African American graduates and an UC eligibility rate from 1996 of more than 7%	16	6	37.5%
D	API median or higher	and school does not meet criterion above	170	19	11.2%
Total			403	54	13.4%

a Schools are sampled from each stratum with equal probability and replacement. Sampling is done in this way to simplify the procedure to calculate eligibility estimates from the sample results. There are fewer than 54 distinct schools in the actual sample because a school can be picked more than once in the selection procedure. This difference was allowed for in the sampling design so the sampling procedure will yield the desired number of transcripts.

b Probability that a graduate at a school in this stratum will be included in the sample.

Factors indicating a school's eligibility rate

When the 2003 study was in its planning stages, the Commission examined the results of the 1996 study to see how eligibility rates varied from school to school. The purpose of this analysis was to see if any factors other than the school's general performance as measured by its API should be considered when sampling schools for the eligibility study.

Eligibility rates for each school were calculated using the sample results from the 1996 study. Staff did an initial regression of the eligibility rate for CSU against the school's API for 2001. This regression showed that the variation in API explained 43% of the variation in the eligibility rate. This is a particularly strong result, considering that the dependent variable is calculated from a small sample so is subject to large measurement errors, and that the regressor measures school performance in 2001, not 1996.

Staff tried a number of other regressors in order to increase the proportion of the variation in eligibility rate that could be linked to various indicating factors. Some of these factors were education-related statistics for the school, such as the percent of graduates taking *a–g* courses, and others were based on income and other socioeconomic data from the 2000 Census.

The strongest relationship was that using API and the percent of graduates taking SAT as the regressors. As expected, most of the regressors tried were related to eligibility rate when they were tried individually, but when they were added to a regression using API and SAT rate, they did not improve the explanatory power of the regression equation. The regressors tried and the results are summarized in the tables, opposite.

A factor that is often believed to affect university-going is the school's location. There is a widespread concern that small schools in remote areas have difficulty in sending their graduates to university, because they are unable to offer a full range of college preparatory classes or because may not be a college-going culture in these areas. In the 1996 eligibility study, schools were classified as urban, suburban, or rural, based on a system used by the California Department of Education. However, this classification system is no longer maintained by the department, so could not be used in the regressions.

As a substitute, the Commission tried the size of the school and the distance to the nearest UC or CSU campus as regressors to answer the question of whether eligibility tends to be low at small, remote schools. These regressors had no significant relationship to eligibility rates. When selecting a sample of schools to estimate statewide eligibility rates, there is no need for special treatment of rural schools. Provided that the sampled schools cover the range of API, they are suitable for estimating statewide eligibility rates.

Regressors tried

Regressor	Remarks
API, 2001	Measures general academic performance of the school
School Characteristics Index	A composite of several indicators that are linked to school performance
Percent of graduates taking SAT	Measures the extent of the 'college-going culture' of school
Percent of graduates completing a–g courses	As above
Average SAT score	Measures performance of students
School size, defined as the log of number of graduates	May measure the ability of larger schools have to offer a full range of college preparatory courses.
Distance from school to nearest CSU or UC general campus	Measures isolation of school from university locations
Average family income Percent of adult population with a bachelor's degree or higher	Calculated using census data for a neighborhood for each school, defined as all of the census block groups within a 2–1.5 mile radius. The exact radius depended on the population density.

Regression results

Regressors	R ²	Remarks
2001 API	43%	A single regressor accounts for much of the variation in eligibility
Percent taking SAT	41%	
Average SAT score	36%	Has consistently less explanatory power than percent taking the SAT
SCI	38%	
Percent of graduates taking a–g courses	34%	Has only two regressors, yet has high explanatory power.
Average family income	25%	
Percent of population with bachelor's degree	27%	Intercorrelation means that additional dependent variables do not improve the explanatory power
2001 API and percent taking SAT	50%	
2001 API, percent taking SAT, and average SAT score	51%	Lower explanatory power, because API is highly correlated with income
2001 API, percent taking SAT and percent taking a–f courses	51%	
2001 API and percent of population with bachelor's degree	44%	Neither has any significant effect
Distance, size	<1%	

In all cases, the dependent variable was the percent eligible for CSU. School eligibility rates are based on small samples and are subject to high measurement error. This error is smaller for the CSU eligibility rate because more graduates are eligible for CSU.

All R² statistics are adjusted for degrees of freedom. Regressions are for 750–770 schools, depending on exactly which data items were available for the schools

Appendix B: Statistical Results

The results from the evaluation of the transcripts were processed using PROC SURVEYMEANS in the SAS system.

Output tables: eligibility rates for public comprehensive high schools only

	Category	Estimated value (%)	Standard error	Lower confidence limit	Upper confidence limit	N	Clusters
CSU	All graduates	31.3%	1.8%	27.6%	35.0%	18,660	54
	Male	26.0	2.0	22.0	30.0	9,066	54
	Female	36.2	1.9	32.3	40.1	9,594	54
	African American	20.7	1.8	17.0	24.3	2,306	49
	American Indian	22.8	5.2	12.4	33.2	173	37
	Asian, Pacific, Filipino	49.2	4.6	39.9	58.5	3,241	49
	Latino	17.6	0.9	15.8	19.5	5,741	54
	White, Middle East	37.2	1.8	33.5	40.9	7,047	53
	Unknown	33.1	9.6	13.8	52.4	152	19
	African American, male	14.1	1.3	11.5	16.8	1,054	42
	American Indian, male	24.1	6.0	12.1	36.1	82	29
	Asian, Pacific, Filipino, male	42.4	5.5	31.4	53.5	1,618	44
	Latino, male	12.5	0.9	10.8	14.3	2,672	50
	White, Middle East, male	31.6	2.0	27.6	35.5	3,569	53
	Unknown, male	22.4	9.2	3.9	40.9	71	19
	African American, female	25.9	2.4	21.0	30.7	1,252	46
	American Indian, female	21.5	5.6	10.4	32.7	91	31
	Asian, Pacific, Filipino, female	55.7	4.3	47.2	64.3	1,623	48
	Latino, female	22.0	1.3	19.3	24.7	3,069	54
	White, Middle East, female	43.0	2.2	38.6	47.4	3,478	53
Unknown, female	43.5	12.2	19.0	68.1	81	14	
UC	All graduates	15.7%	1.8%	11.9%	19.4%	18,660	54
	Male	13.6	2.0	9.5	17.6	9,066	54
	Female	17.6	1.8	14.1	21.1	9,594	54
	African American	7.0	1.0	5.0	9.0	2,306	49
	American Indian	8.1	2.7	2.8	13.5	173	37
	Asian, Pacific, Filipino	32.5	6.2	20.0	44.9	3,241	49
	Latino	7.2	0.6	6.0	8.3	5,741	54
	White, Middle East	17.5	1.5	14.5	20.6	7,047	53
	Unknown	17.9	6.8	4.3	31.6	152	19
	African American, male	5.0	0.7	3.5	6.5	1,054	42
	American Indian, male	10.9	3.3	4.3	17.5	82	29
	Asian, Pacific, Filipino, male	28.9	6.9	15.2	42.7	1,618	44
	Latino, male	4.7	0.6	3.5	5.9	2,672	50
	White, Middle East, male	15.5	1.8	12.0	19.1	3,569	53
	Unknown, male	15.3	7.3	0.7	29.9	71	19
	African American, female	8.6	1.3	6.0	11.2	1,252	46
	American Indian, female	5.4	2.8	-0.2	11.0	91	31
	Asian, Pacific, Filipino, female	35.9	5.8	24.3	47.6	1,623	48
	Latino, female	9.3	0.7	7.9	10.8	3,069	54
	White, Middle East, female	19.5	1.4	16.7	22.4	3,478	53
Unknown, female	20.5	7.5	5.4	35.6	81	14	

Estimates of Eligible Graduates

Type of school	Category	Eligibility rate (%)	Standard error	Graduates	Eligible graduates	Standard error of pool	Lower end of range	Upper end of range	
Comprehensive	CSU	All graduates	31.3%	1.8%	308,333	96,400	5,650	85,100	107,800
		Male	26.0	2.0	147,895	38,500	2,930	32,600	44,300
		Female	36.2	1.9	160,438	58,100	3,120	51,800	64,300
		African American	20.7	1.8	21,621	4,500	390	3,700	5,300
		American Indian	22.8	5.2	2,628	600	140	300	900
		Asian, Pacific, Filipino	49.2	4.6	46,670	23,000	2,170	18,600	27,300
		Latino	17.6	0.9	103,520	18,200	940	16,400	20,100
		White, Middle East	37.2	1.8	131,343	48,900	2,430	44,000	53,800
	UC	All graduates	15.7%	1.8%	308,333	48,300	5,700	36,800	59,700
		Male	13.6	2.0	147,895	20,100	3,000	14,000	26,100
		Female	17.6	1.8	160,438	28,200	2,820	22,600	33,900
		African American	7.0	1.0	21,621	1,500	220	1,100	2,000
		American Indian	8.1	2.7	2,628	200	70	100	400
		Asian, Pacific, Filipino	32.5	6.2	46,670	15,200	2,890	9,300	21,000
		Latino	7.2	0.6	103,520	7,400	590	6,300	8,600
White, Middle East		17.5	1.5	131,343	23,000	1,990	19,000	27,000	
Continuation/Alt	CSU	All graduates	0.9%	0.5%	27,325	260	128	0	520
		Male	0.8	0.4	12,932	100	50	0	200
		Female	1.1	0.5	14,393	160	78	0	320
		African American	0.6	0.3	2,521	20	8	0	40
		American Indian	0.7	0.3	425	0	1	0	0
		Asian, Pacific, Filipino	1.5	0.7	1,735	20	13	0	60
		Latino	0.5	0.3	10,797	60	29	0	120
		White, Middle East	1.1	0.6	11,483	120	64	0	260
	UC	All graduates	0.5%	0.2%	27,325	120	64	0	260
		Male	0.4	0.2	12,932	60	26	0	100
		Female	0.5	0.3	14,393	80	38	0	160
		African American	0.2	0.1	2,521	0	3	0	20
		American Indian	0.2	0.1	425	0	1	0	0
		Asian, Pacific, Filipino	1.0	0.5	1,735	20	8	0	40
		Latino	0.2	0.1	10,797	20	12	0	40
White, Middle East		0.5	0.3	11,483	60	30	0	120	

Standard error of eligibility rates for continuation & alternative schools is taken as being half of the eligibility rate, which gives a lower 95% confidence limit of zero.

Eligible graduates and eligibility rates for all public high schools

	Category	Graduates	Eligible graduates	Standard error of pool	Lower end of range	Upper end of range	Eligibility rate (%)	Standard error	Lower confidence limit	Upper confidence limit
CSU	All graduates	335,658	96,700	5,651	85,400	108,000	28.8%	1.7%	25.4%	32.2%
	Male	160,827	38,600	2,930	32,700	44,500	24.0	1.8	20.3	27.7
	Female	174,831	58,300	3,121	52,000	64,500	33.3	1.8	29.7	36.9
	African American	24,142	4,500	390	3,700	5,300	18.6	1.6	15.3	22.0
	American Indian	3,053	600	140	300	900	19.7	4.6	9.8	29.5
	Asian, Pacific, Filipino	48,405	23,000	2,170	18,700	27,400	47.5	4.5	38.6	56.6
	Latino	114,317	18,300	940	16,400	20,100	16.0	0.8	14.3	17.6
	White, Middle East	142,826	49,000	2,431	44,200	53,900	34.3	1.7	30.9	37.7
UC	All graduates	335,658	48,400	5,700	37,000	59,800	14.4%	1.7%	11.0%	17.8%
	Male	160,827	20,200	3,000	14,200	26,200	12.6	1.9	8.8	16.3
	Female	174,831	28,300	2,820	22,600	33,900	16.2	1.6	12.9	19.4
	African American	24,142	1,500	220	1,100	1,900	6.2	0.9	4.6	7.9
	American Indian	3,053	200	70	100	300	6.6	2.3	3.3	9.8
	Asian, Pacific, Filipino	48,405	15,200	2,890	9,400	21,000	31.4	6.0	19.4	43.4
	Latino	114,317	7,400	590	6,200	8,600	6.5	0.5	5.4	7.5
	White, Middle East	142,826	23,100	1,990	19,100	27,000	16.2	1.4	13.4	18.9

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