Analysis of Access and Graduation Rates

Report to The Board of Trustees
January 26, 2005

The California State University
Division of Academic Affairs

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The California State University
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Background

Trustees received at the November 2004 meeting of the California State University (CSU) Board of Trustees the third biennial Accountability report and heard a presentation by Executive Vice Chancellor David Spence. Members of the Board welcomed Dr. Spence’s plan to offer further opportunity for discussion of the data the January 2005 Board meeting. Among other Accountability indicators, rates of access, persistence, and graduation with the baccalaureate degree – especially by racial and ethnic subgroups – were of particular interest. This analysis provides information on the extent to which racial and ethnic Californians are being provided with entry access to the CSU and with authentic access – quality instruction, advising, and other supports – to learn and earn the CSU baccalaureate.

Access: California Public High School Graduates and First-Time Freshmen

The racial and ethnic distribution of California public high school graduates provides a baseline to review and assess the extent to which California’s racial and ethnic subgroups are gaining access to California public universities and colleges.

Figure 1

The 2003 California public high school graduates were 42.8% White and 34.5% Latino. The remaining quarter or so of graduates was: Asian Pacific Islander (11.2%), African American (7.3%), Filipino (3.3%), and Native American (.9%).
The California Community College’s (CCC’s) racial and ethnic distribution of first-time freshmen from California public high schools generally reflects that of public high school graduates and, in fact, evidences a slightly greater representation of almost all racial and ethnic subgroups compared with high school counterparts (Latino, 35.9% vs. 34.5%; Asian/Pacific Islander 11.6% vs. 11.2%; African American, 7.6% vs. 7.3%); and Filipino, 3.8% vs. 3.3%).

**Figure 2**

Enrolling as First-Time Freshmen at California Community Colleges, 2003

Source: CPEC Online Database

**Figure 3**

Enrolling as First-Time Freshmen at University of California, 2003

Source: CPEC Online Database

In contrast, the University of California’s (UC’s) racial/ethnic distribution is roughly proportionate with that of public high school graduates for only two subgroups, Filipino (4.9% vs. 3.3%) and Native American (.5% vs. .9%). Figure 3 above for the UC compares with Figure 1 for public high school graduates for the balance of subgroups as follows: White (36.4% vs.
42.8%), Latino (16.6% vs. 34.5%); Asian Pacific Islander (37.9% vs. 11.2%); and African American (3.7% vs. 7.3%).

The CSU’s racial and ethnic distribution of first-time freshmen from California public high schools is more reflective of the racial and ethnic distribution of public high school graduates than the UC’s, but is less representative than the CCC’s. The CSU’s distribution is roughly proportionate for Whites (42.1% vs. 42.8%), African Americans (7.5% vs. 7.3%), and Native Americans (.8% vs. .9%). Figure 4 above for the CSU compares with Figure 1 for public high school graduates for the balance of subgroups as follows: Latino (27.8% vs. 34.5%); Asian/Pacific Islander (15.8% vs. 11.2%); and Filipino (6.0% vs. 3.3%).

African American and Latino public high school graduates are not enrolling as first-time freshmen at UC and CSU campuses in proportion to their graduation from California public high schools. Their underrepresentation occurs largely because academic preparation for UC and CSU first-time freshman admission is not equivalent across racial and ethnic subgroups. About 21 percent of African American comprehensive public high school graduates and 18 percent of Latino public high school graduates in the Class of 2003 successfully completed the CSU’s and UC’s college preparatory courses in high school with approximately a B grade-point average (or a lower GPA with compensating SAT I or ACT test scores) in comparison with over 37 percent of White and 49 percent of Asian Pacific Islander (including Filipino) counterparts.¹

That is, of the 300,000 plus public comprehensive high school graduates from the Class of 2003, about 95,000 were estimated by the UC, the CSU, and the California Postsecondary Education Commission to have been eligible for first-time freshman admission under the California Master
Plan for Higher Education. Of these, it is estimated that Latinos comprised about 20 percent of eligible public high school graduates and African Americans, 5 percent.²

**Figure 5**

<table>
<thead>
<tr>
<th>Eligibility and First-Time Freshman Enrollment</th>
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<tbody>
<tr>
<td>Percent of 2003 UC and CSU First-Time Freshmen</td>
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<tr>
<td>Percent of 2003 Eligible Public High School Graduates</td>
</tr>
</tbody>
</table>

Sources: CPEC Eligibility Study and Online Database

In 2003, the UC and the CSU, together, enrolled over 50,000 first-time freshmen, of which 23 percent were Latino and 6 percent were African American. Figure 5 above clarifies that the UC and the CSU, together, are enrolling Latinos and African Americans in proportion to their representation in the eligibility pool for the two senior segments of California higher education.

But the most important lesson in this analysis on access at entry is the gap between African American and Latino public high school graduates’ eligibility rates and the eligibility standard. If all racial and ethnic subgroups had equal access to high quality and appropriate instruction from preschool through high school, we would probably expect a third of the high school graduates in each subgroup to be eligible for CSU admission. That African American and Latino public high school graduates in the Class of 2003 (21% and 18%)³ are much more eligible for higher education than their Class of 1996 counterparts (13% and 13%)⁴ reflects improvements in K-12, especially in underperforming schools. However, that African American and Latino comprehensive public high school graduates are still some distance from the 33 1/3% goal of eligibility underscores the need for K-12 and higher education, which prepares K-12 teachers and administrators, to continue their efforts to provide all students with sound, solid academic preparation.⁵

² Based on estimates of the numbers of eligible comprehensive public high school students by racial and ethnic subgroups, California Postsecondary Education Commission, *op. cit.*, page 21.
Californians for the 21st century economy involve the CSU in its role as the primary trainer of teachers in California and increasingly in its evolving role in educational leadership and administration, as well as in partnerships with K-12, the UC, the CCC, and independent institutions of higher education. The next section focuses on the issue of whether CSU first-time freshmen across racial and ethnic subgroups are making their way to the baccalaureate proportionate to their representation at entry.

CSU First-Time Freshmen and Degree Conferrals to CSU First-Time Freshmen

To set the stage, Figure 6, as before, provides a baseline snapshot of the racial and ethnic distribution of California public high school graduates from the Class of 1997. Compared with the graduating Class of 2003, the Class of 1997 was notably more White (46.2% vs. 42.8%) and notably less Latino (30.5% vs. 34.5%), a shift that largely reflects changing demographics in California.

![Figure 6](https://example.com/image.png)

**Figure 6**

California Public High School Graduates, 1997

- White: 46.2%
- Latino: 30.5%
- Asian/Pacific Islander*: 7.7%
- African American: 14.7%
- Native American: 0.9%

*Filipinos included with Asian/Pacific Islanders.

Source: CPEC Online Database

The CSU’s racial and ethnic distribution of fall 1997 first-time freshmen is illustrated in Figure 7 which, in comparison with Figure 6, shows that Asian Pacific Islanders (including Filipinos), African Americans, and American Indians had a presence on CSU campuses as first-time freshmen in greater proportions than in the California public high school graduating class of 1997 in contrast with Latino and White counterparts.

found that the intensity and quality of the secondary school curriculum were more important factors affecting a student’s achievement of the baccalaureate than the grades and test scores students earned.
Figure 7

Fall 1997 First-Time Freshmen Enrolled at California State University

- White: 23.2%
- Latino: 8.9%
- Asian/Pacific Islander*: 27.2%
- African American: 39.6%
- Native American: 1.1%

*Filipinos included with Asian/Pacific Islanders.

Source: CSU, Integrated Postsecondary Education Data System—Graduation Rate Survey (IPEDS-GRS), 1997-2003

The important comparison in this section of the report, however, is between Figure 7 and Figure 8.

Figure 8

CSU Baccalaureate Degree Recipients** Who Entered As First-Time Freshmen in Fall 1997

- White: 24.7%
- Latino: 6.3%
- Asian/Pacific Islander*: 42.3%
- African American: 1.0%
- Native American: 25.7%

*Filipinos included with Asian/Pacific Islanders.  **Graduated or Still Enrolled in 2003

Source: CSU, Integrated Postsecondary Education Data System—Graduation Rate Survey (IPEDS-GRS), 1997-2003

Since White and Asian Pacific Islander baccalaureate degree recipients are more represented in Figure 8 than their first-time freshman proportion in Figure 7, it is clear that they are conferred more CSU baccalaureate degrees\(^6\) than their racial and ethnic counterparts.

\(^6\) The statistics in Figures 7 and 8 are from a federally-mandated annual report on the graduation of first-time freshmen who took 12 units or more in their first term of entry. The report provides snapshot of graduation after four, five, and six years. The report provides good information about graduation from research universities and other senior institutions that require students to enroll full-time. However, for institutions like those in the CSU that are structured to permit students to enroll at the pace to degree that they require or prefer, IPEDS-GRS is
The factors that underpin the differential are more complex. We know, for example, that the vast majority of the fall 1997 CSU first-time time freshmen completed college preparatory courses. But, we also know that 54 percent of these freshmen were not adequately prepared to enroll in college-level mathematics and 47 percent were not adequately prepared to enroll in college-level English.

The research literature is clear that “the extent of a student’s need for remediation is inversely related to his or her eventual completion of a degree.”7 There are notable gaps in mathematics and English proficiency by racial and ethnic subgroup. In mathematics, 46 percent of Asian Pacific Islanders, 47 percent of Whites, and 55 percent of American Indians required some remediation, in contrast with 70 percent of Latinos and 80 percent of African Americans. In English, 28 percent of Whites and 34 percent of American Indians required some remediation, in contrast with 62 percent of Asian Pacific Islanders, 63 percent of Latinos, and 64 percent of African Americans.8 Thus, the differentials in mathematics and English proficiency by racial and ethnic subgroup underpin the differentials in baccalaureate degree receipt.

Like others,9 CSU faculty members have observed that the most pressing problems involve inadequate critical reading skills. Unlike others, the CSU has launched an aggressive program of professional development for high school teachers and adjusted its single-subject English preparation programs to prepare high school teachers to teach their courses with an eye to critical reading and writing.

More importantly, first-time freshmen could start college on surer footing, if they would improve their skills in mathematics and in English while they still are in high school. Honing mathematics and English skills to more advanced levels in high school is not remedial; honing skills in high school makes natural sense as college preparatory students and their teachers prepare for the students’ transition to the rigors of higher education. To this end, California public education and the CSU have partnered to provide all public high school juniors with the opportunity to receive an Early Assessment of Readiness for College English and Mathematics by volunteering to complete another 15 to 20 minutes of more advanced multiple-choice items after they complete their regular 11th grade California Standards Tests in English10 and in Mathematics (Algebra II or High School Summative Mathematics). In the fall when students return to school as seniors, they are provided with early assessments.

As the remediation rates for the CSU suggest, most students who take the Early Assessments learn in their senior year that they need to improve their skills. With this recognition, CSU

misleading. Fortunately, the CSU for years has tracked its students across a longer time horizon and has found that the number of students who received the baccalaureate by the sixth year and those still enrolled in the sixth year gives an excellent indicator of final graduation. See, e.g., CSU Statistical Abstract to July 2003 (Long Beach, CA: Office of the Chancellor, 2004, http://www.calstate.edu/as/abstract.shtml, 2002-2003, Table 141, page 230).

9 Ibid.
10 A 45-minute reading prompt and essay also is requested.
faculty and administrators and K-12 teachers and administrators have been working diligently to ensure that Early Assessment Program (EAP) opportunities to gain more refined information about strengths and weaknesses and to improve skills are provided during 12th grade classes, out-of-classroom activities, and technology-mediated services and instruction.11

California public schools and the CSU are committed to the Early Assessment of Readiness for College English and Mathematics, improved professional development of teachers and administrators, improved teacher preparation, Early Assessment Programs in the senior year, progressive instructional improvements throughout K-12, strengthened communications, and foci on the factors that matter and the strategies that work. While the partnership between California public schools and the CSU should go a long way to help in improving the academic preparation of all students and closing the preparation gaps among racial and ethnic subgroups, there is more than improved academic preparation involved in improving graduation.

**Authentic Access: Efficient and Effective Pathways to Graduation**

Nationally about half of the students who leave an institution before receiving the baccalaureate do so before the fall of the second, or sophomore, year.12 As such, if we are interested in improving graduation rates, it is important to review and assess the extent to which first-time freshmen persist from fall entry to the following fall.

Among the factors that influence first-year retention are the information and activities that campuses provide to admitted applicants to help them and their parents make decisions about the match between student needs, priorities, and preferences and institutional offerings. In addition, activities to orient, involve, engage, and integrate first-time freshmen to the academic and extracurricular life of the campus community make sense and affect first-year retention.13 Mismatches between the student and institution are not uncommon. High school seniors often think that they want to move away from home and decide in their freshman year that they miss home. Students sometimes select an institution for its particular excellence in a discipline that fails to hold their interest in the freshman year.

Perhaps not surprisingly, academic preparation of first-time freshmen also enters into first-year retention. That is, viewed from the institutional perspective, extremely selective14 universities, like Harvard, retain virtually their entire entering freshman classes to the sophomore year in contrast with open institutions with first-year retention rates around 55 percent.15 For students who are not academically well-prepared or inclined, the first year in college can be difficult or confirmation that college isn’t the right thing for them at this time.

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11 For more information on the Early Assessment Program, see [http://www.calstate.edu/eap/](http://www.calstate.edu/eap/).
13 See ACT, op. cit., as well as the National Resource Center for the First-Year Experience and Students in Transition ([http://www.sc.edu/fye/](http://www.sc.edu/fye/)) for more information about the first-year experience.
14 As measured by SAT I or ACT scores of admitted students.
To benchmark CSU first-year retention, the CSU joined Consortium for Student Retention Data Exchange (CSRDE), a consortium of over 400 four-year colleges and universities that share data about retention and graduation in order to benchmark their institutional standing and progress.

**Figure 9**

First-Year Retention for Fall 1997 First-Time Freshmen:
CSU Rates and National Benchmarks

![Figure 9](image)


Figure 9 presents information about the first-year retention rates of CSU fall 1997 first-time freshman in comparison with the first-year retention rates of fall 1997 first-time freshman academic peers. Overall and across subgroups, the first-year retention rates for CSU first-time freshmen exceed those for national benchmarks.

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16 The University of Oklahoma (OU) and the Center for Institutional Data Exchange and Analysis (C-IDEA) developed and manage the Consortium for Student Retention Data Exchange (CSRDE), data, and reports. The reports of CSRDE are the property of OU and C-IDEA and are subject to certain rights and protections. In addition, members of the Consortium have agreed to maintain the confidentiality requirements of certain information.

17 The federally-mandated Integrated Postsecondary Education Data System – Graduation Rate Survey (IPEDS-GRS) specifications are used by CSRDE for first-time freshmen, that is, first-time freshmen taking 12 units or more at entry. Subgroup benchmark rates were based on CSRDE selectivity correspondence only and rates extrapolated for subgroups whose selectivity indicator placed them between categories.
Graduation, however, is the goal, and Figure 10 indicates that overall and for almost every subgroup, CSU first-time freshmen receive the baccalaureate at rates that exceed those of freshman peers.¹⁸

**Figure 10**

<table>
<thead>
<tr>
<th>Graduation Rates for Fall 1997 First-Time Freshmen: CSU Rates and National Benchmarks</th>
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</thead>
<tbody>
<tr>
<td>Benchmark Graduation Rate</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>African American</td>
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<td>Latino</td>
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<tr>
<td>Asian/Pacific Islander</td>
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<tr>
<td>Native American</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Non-Resident Alien</td>
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This analysis suggests that CSU campuses are providing its diverse first-time freshmen with the kinds of instruction, campus climate, and services to forward their progress to the baccalaureate at rates that are at least commensurate with four-year institutions serving similar students.

But a 54 percent graduation rate is not high enough. California’s economy requires more Californians to have the kinds of higher-order skills and knowledge provided through baccalaureate instruction. Unfortunately, it is difficult to know what an ambitious, but reachable, goal is. For example, the highly-selective University of California (UC), which selects first-time freshmen from the upper-eighth of California high school graduates, had a

¹⁸ As noted in the indicator associated with Figure 8, the CSU for years has tracked its students across a longer time horizon and has found that the number of students who received the baccalaureate by the sixth year and those still enrolled in the sixth year gives an excellent indicator of final graduation. See, e.g., CSU Statistical Abstract to July 2003 (Long Beach, CA: Office of the Chancellor, 2004, http://www.calstate.edu/as/abstract.shtml, 2002-2003, Table 141, page 230). Figure 10 above focuses on final graduation, i.e., 6-year graduation plus continuing enrollment, in its use of CSRDE data, in part, to control for fact that many CSU student start college taking 12 units or more but frequently stop-out or work full-time and enroll part-time.
graduation rate of 78 percent for its fall 1997 first-time freshmen. The combined effects of improved academic preparation for college and campus activities to facilitate CSU student progress to degree should impact graduation of first-time freshmen in the CSU. But it takes time to develop and build institutional capacity, and it takes first-time freshmen several years to earn the degree. In addition, graduation rates are remarkably stable from year to year. However, indicators across the decades when the college preparatory course pattern was developed and finally implemented reveal notable improvements in CSU graduation rates: Fall 1977 CSU first-time freshman had a 38 percent graduation rate from the campus of entry (44 percent from any CSU campus), the fall 1987 counterparts had 47 percent graduation rate (53 percent), and the fall 1997 cohort had a 54 percent graduation rate (60 percent). A systemwide goal somewhere between 60 and 70 percent for graduation from the CSU campus of entry (65 to 75 percent from any CSU campus) over the next decade would seem to be in the ambitious, but feasible, range.

Figure 11

![4-Year Graduation Rates for Fall 1997 First-Time Freshmen: CSU Rates and National Benchmarks](image)

Figure 11 above compares the graduation rates of CSU first-time freshmen and those of benchmark counterparts after four years. Overall and for almost every subgroup, the CSU rate stands below the benchmark. That CSU’s four-year graduation rates might lag behind national

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19 University of California, “University Persistence, Graduation & Time-to-Degree Rates” (Oakland, CA: Office of the President, [http://www.ucop.edu/sas/infodigest03/Persistence_Freshmen.pdf](http://www.ucop.edu/sas/infodigest03/Persistence_Freshmen.pdf), page 2 of 9)

benchmark rates came as no surprise. From the CSU Accountability Report\textsuperscript{21} and CSU’s task force on Facilitating Student Success in Achieving the Baccalaureate Degree,\textsuperscript{22} we know that most CSU first-time freshmen, who often juggle competing priorities of family, work, and school, do not progress to degree at the “traditional” pace of four years.

**Figure 12**

*Fall 1997 First-Time Freshmen -- Pace to Degree*

![Pie chart showing distribution of students by pace to degree](CSU Accountability Report, November 2004)

The CSU believes that its role is to provide students with effective and efficient pathways to degree at the pace that they require or prefer. It has, thus, been disappointing to see that only about a third of the students who completed enough credit units to graduate in four years received the degree.

**Figure 13**

*Graduation Rates for CSU Fall 1997 First-Time Freshmen - Traditional Full-Time*

![Bar chart showing graduation rates](CSU Accountability Report, November 2004)

\textsuperscript{21} California State University, Campus and System Performance Information URL (Long Beach, CA: Office of the Chancellor, \url{http://www.asd.calstate.edu/accountability/index.shtml})

\textsuperscript{22} California State University, Facilitating Student Success in Achieving the Baccalaureate Degree URL (Long Beach, CA: Office of the Chancellor, 2002, \url{http://www.calstate.edu/AcadAff/FacilitatingGraduation.pdf})
Similarly, the vast of majority of first-time freshmen completed units on a pace to complete the degree by the end of the sixth year, yet only 39 percent did.

![Figure 14](image)

At the January 2005 meeting of the Board of Trustees, information about the plans and actions that campuses are undertaking to facilitate more efficient progress to degree will be presented and discussed. Roadmaps and the scheduling of courses aligned with them, advising, and audits of progress to degree are among the areas of presentation.

**Summary and Conclusions**

The following points seek to summarize the analysis provided in the preceding pages.

- California public high school graduates are diverse, in 2003 comprising 42.8% Whites, 34.5% Latinos, 11.2% Asian Pacific Islanders, 7.3% African Americans, 3.3% Filipinos, and 0.9% Native Americans. [See Figure 1.]
- The CSU’s racial and ethnic distribution of first-time freshmen from California public high schools is more reflective of the racial and ethnic distribution of public high school graduates than the UC’s, but is less representative than the California Community Colleges. [See Figures 2, 3, 4].
- The underrepresentation of African American and Latino public high school graduates occurs largely because academic preparation for UC and CSU first-time freshman admission is not equivalent across racial and ethnic subgroups. [See Pages 3-4.]
- Among students who entered CSU as first-time freshmen in Fall 1997, White and Asian Pacific Islander students are more represented among baccalaureate degree recipients than are Latinos and African Americans. Differentials in mathematics and English proficiency by racial and ethnic subgroup underpin the differentials in baccalaureate degree receipt. [See Figures 7, 8, and Page 7.]
• CSU first-year retention for Fall 1997 first-time freshmen exceeded rates at “benchmark” institutions that are similar to CSU, especially as to selectivity.  [See Figure 9.]

• CSU 6-year graduation rates for Fall 1997 first-time freshmen exceeded those at “benchmark” institutions except for African Americans.  [See Figure 10.]

• However, CSU 4-year graduation rates for Fall 1997 first-time freshmen at CSU were lower than for “benchmark” institutions.  We know that CSU first-time freshmen, who often juggle competing priorities of family, work, and school do not progress to degree at the “traditional” pace of four years.  [See Figures 11, 12.]

• It is disappointing that only about a third of the students who completed enough credit units to graduate in four years received the degree; and that among first-time freshmen, the vast majority of whom completed units on a pace to complete the degree by the end of the sixth year, only 39% did so.  [See Figures 12, 13, 14.]

• California public schools and the CSU are committed to the Early Assessment of Readiness for College English and Mathematics, improved professional development of teachers and administrators, improved teacher preparation, Early Assessment Programs in the senior year, progressive instructional improvements throughout K-12, strengthened communications, and foci on the factors that matter and strategies that work. [See Page 8.]

• Efficient and effective pathways to graduation are also being clarified, developed, and provided to students by CSU campus faculty and administrators, typically modeling on best practices found in reports such as “Facilitating Student Success in Achieving the Baccalaureate Degree” (Office of the Chancellor, 2002).