

## Academic Preparation Characteristics and Six-Year Graduation Rates

By Hongtao Yue, IRAP Research Analyst

The purpose of this study is to describe the relationships between academic preparation characteristics and six-year graduation rates and to explore the admissions selection criteria to see how changes may affect the graduation rate. In this study, academic preparation characteristics include high school GPA, SAT Verbal, SAT Math and SAT composite scores, CSU Eligibility Index, English proficiency test (EPT) score and Mathematics proficiency test (ELM) score.

All first-time full-time freshmen who entered in fall 1997 through fall 2004 (N = 15,533) are included in this study. First-time part-time freshmen (N = 561) are excluded because the six-year graduation rate of interest is for first-time full-time freshmen. First-time full-time freshmen are classified into two groups based on their residency status: CA resident (N = 15,110) and Non-CA resident (N = 423) because the two groups have different admission standards. This study uses descriptive statistics and correlation analysis. Following are the major findings.

- For CA resident students, academic preparation characteristics are strongly and positively correlated with the six-year graduation rate except for the EPT score which has moderate positive correlation. (See Table 1)
- For Non-CA resident students, the correlations between academic preparation characteristics and the six-year graduation rate are moderate and positive except for the SAT Verbal, EPT and ELM scores. SAT Verbal and ELM have a small positive correlation with the graduation rate. The EPT score has a moderate but negative correlation with the graduation rate. The lack of strong correlations suggest that, for Non-CA resident students, factors other than academic preparation characteristics have as much or more influence on their graduating. (See Table 1)
- Non-CA resident students generally have lower six-year graduation rates than CA resident students. However, the number of Non-CA resident students in first-time full time freshmen is so small that they have little effect in the overall six-year graduation rate. (See Table 2)
- Eligibility Index is the most important factor affecting six-year graduation rates of CA resident students because it is the most highly correlated to six-year graduation rates ( $r = 0.99$ ). The current minimum Eligibility Index required for CA resident students is 2900. The overall six-year graduation rate is about 51% of students who meet or exceed this requirement (Chart 1). As the chart shows, students with an Eligibility Index of 2900 graduated at 29%. Students with a higher Eligibility Index graduated at substantially higher rates, resulting in the overall 51% rate. At a minimum 3300 Eligibility Index, we

would expect an overall graduation rate of 57%; 3600 Eligibility Index would result in a 64% overall graduation rate.

**Table 1 Correlation between academic preparation characteristics and six-year graduation rate  
(First-time full-time freshmen, CA resident, Fall 1997 to Fall 2004, N = 15533)**

	CA resident	Non-CA resident
HSGPA	0.98	0.45
SAT_VERB	0.73	0.18
SAT_MATH	0.65	0.47
SAT_COMP	0.74	0.50
EPT_TOT	0.47	-0.42
ELM_TOT	0.62	0.22
Eligibility Index*	0.99	0.49

\* Eligibility index = HS GPA \* 800 + SAT composite score.

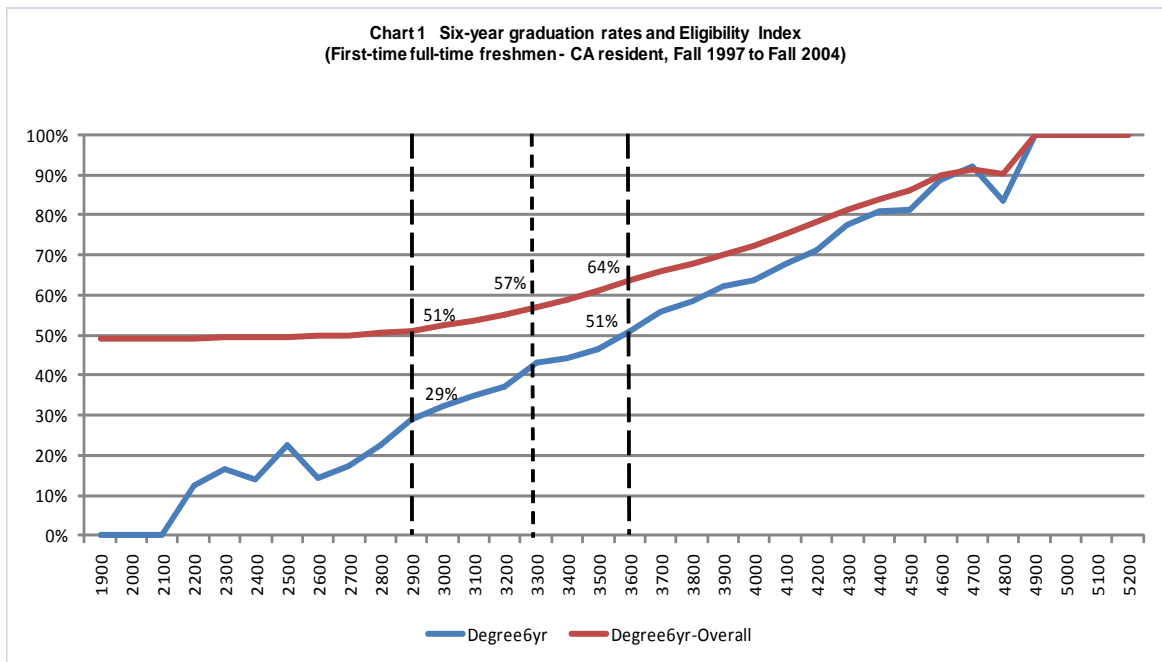
**Technical notes:**

Pearson's correlation coefficient (r) is used to measure the strength of the correlations. Correlations less than 0.3 is considered as small, 0.3-0.5 as moderate, and 0.5 or above as strong.

**Table 2 CA resident and Non-CA resident students comparisons  
(First-time full-time freshmen)**

	Residence status*	Fall 1997	Fall 1998	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004
Enrolled HC	Non-CA Resident	48	45	48	65	76	62	51	28
	CA Resident	1463	1521	1655	1820	1872	2129	2435	2215
Six-year graduation rate	Non-CA Resident	33.3%	44.4%	37.5%	40.0%	46.1%	41.9%	58.8%	57.1%
	CA Resident	46.6%	45.9%	43.3%	45.5%	48.0%	48.1%	47.6%	50.5%
	Overall	46.2%	45.8%	43.1%	45.4%	47.9%	48.0%	47.8%	50.6%

\* Based on students' residence status for fee purposes.



**Note:**

Degree6yr is the percentage of students who graduated in six years if the Eligibility Index is equal to the given score. Degree6yr-Overall is the percentage of students who graduated in six years if the Eligibility Index is equal to or above the given score. Students without an Eligibility Index are excluded (N = 2930). For Non-CA resident students, the same chart isn't plotted because of the weak correlation with six-year graduation rate.

- Exceptional admission is also one of the factors affecting our six-year graduation rate. Students admitted by exception have much lower six-year graduation rates than students with regular admission (See Table 3). Our overall graduation rate would be about 2% higher if there were no exceptional admissions (See Chart 2). The percentage of students admitted by exception is decreasing across semesters (See Table 3). (Note: In fall 2010, only 4%, (N=92) of the first-time full-time freshmen were admitted by exception).

**Table 3 Six-year graduation rates by admission group\***  
(First-time full-time freshmen)

	Admission group	Fall 1997	Fall 1998	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004
Enrolled HC	Regular admission	1112	1170	1358	1498	1638	1919	2236	2050
	Exceptional admission	316	289	308	303	237	235	250	190
	Exceptional admission-%	20.9%	18.5%	18.1%	16.1%	12.2%	10.7%	10.1%	8.5%
	Other admission	83	107	37	84	73	37		3
Six-year graduation rate	Regular admission	50.6%	50.6%	47.9%	49.1%	51.7%	50.5%	50.2%	52.8%
	Exceptional admission	30.7%	26.0%	22.7%	24.1%	19.0%	26.8%	26.0%	26.8%
	Other admission	45.8%	47.7%	37.8%	54.8%	56.2%	51.4%		0.0%

\* Admission group is based on students' admission basis code.

