

California's Graduation Rate

The Hidden Crisis

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Across the states, results-based accountability systems have focused tremendous attention in recent years on test scores as a gauge of student success. The federal No Child Left Behind (NCLB) law, effective in 2002, now requires that high schools and school systems report graduation rates as a companion to achievement scores.

The two indicators combined can offer a much sharper picture of how students are faring. But calculating graduation rates is not as straightforward as it sounds, since most states lack individual student identifiers that would enable accurate tracking of students grade to grade and school to school. States, therefore, report their best estimates, calculated by using one of a variety of commonly accepted methods. Since some methods yield a brighter view than others, critics charge that, in the absence of clearer federal guidelines, those are the ones states are motivated to choose.

While the U.S. Department of Education is addressing the problem, one way to get a valid sense of where any state stands is to use multiple methods to calculate the rate, then examine the weight of evidence that emerges. WestEd's review of such analyses done with California data reveals that overall, the state looks slightly better than the national average – which is troublingly low. (See box, State Graduation Rate Comparison, page 7.) But when California's graduation rate is broken down by racial and ethnic groups – to pinpoint which students are being lost – the numbers show a disproportionate loss of Latino and African American students, regardless of method used.

In short, the data show that the achievement gap illustrated by California's test scores (see companion brief, "Student Achievement in California") is only part of the story. In an era when postsecondary education is becoming the new basic for finding a decent job and leading a satisfying life, large numbers of young people are not finishing high school. Demographically, those left behind represent the very groups whose futures and the state's are intertwined.

This brief reports on WestEd's review of California's graduation rate. It examines the methodological debate, provides comparisons between California and other states, and shows California results by race and ethnicity (including data from several of the state's large school districts). Finally, it draws three conclusions:

- » the state's graduation rate is approximately 70 percent, with wide variations across districts;
- » the rate has been relatively stable over time; and
- » a racial/ethnic gap persists.

A Matter of Calculation: Which Method is Best?

NCLB's requirement that states include graduation rates in determining adequate yearly progress (AYP) has suddenly renewed controversy around this indicator. States have begun reporting their graduation rates, and different states are using different methodologies for estimating the rate. Researchers, scholars, and advocates are questioning whether the data in each case are valid. But there is no research consensus on which method would ensure validity. The debate has prompted Education Secretary Rod Paige to convene an expert panel to scrutinize various methods and make recommendations. (See box, Four Calculation Methods.)

A major problem is that in lieu of reliable individual data – the only kind that would allow an exact graduation rate calculation – states use estimates of school or district data as their unit of analysis.

Given that limitation, a central point of debate is whether to base estimates on *dropout* or *enrollment* data. The choice can lead to markedly different results. For example, using the National Center for Education Statistics (NCES) method, which relies on dropout figures, the four-year graduation rate for California's class of 2000–01 is 86.7 percent. Using an enrollment method for that same class over the same four years yields rates that range from 67 percent to 68.9 percent.

The problem with using dropout data is that they are notoriously unreliable because of the logistical difficulty of precisely tracking every student. Students who drop out do not file forms; most simply stop showing up, often leaving their status an open question. Some end up mistakenly listed in other categories – as transfers, for example. Enrollment data, though also imperfect, are considered by some to be more reliable than dropout data because they track school and grade populations rather than individuals. Yet with most enrollment-based methods, there is no way to know whether the missing students dropped out or, for example, repeated grades, left the state, or transferred to private schools.

Graduation rate estimates, therefore, are at best inexact. Yet clarity on graduation rates remains critical for understanding how well public education systems are serving students. By looking across calculations done by differing methods, researchers are able to move one step closer to the rate that individual tracking would probably reveal.

Four Calculation Methods

The four methodologies used in studies WestEd examined are among those being discussed by Education Secretary Rod Paige's expert panel. They are:

» **NCES formula.** California has chosen to use this method for NCLB reporting purposes. Based on dropout data for grades 9 through 12, the formula divides the number of graduates by the number of graduates plus the total number of dropouts in grades 9, 10, 11, and 12. It is designed to answer the question, "Of those students who have left school, what proportion have done so as graduates?"

This method results in a higher graduation rate than the other three.

» **Basic Completion Ratio.** The California Department of Education (CDE) has used this enrollment-based method for many years. It compares the number of students who start out in 9th grade with the number who graduate four years later.

» **Greene method.** Developed by Jay Greene of the Manhattan Institute, this method is also enrollment-based. Like a basic completion ratio, the Greene method compares the cohort of graduates with the cohort of students who entered 9th grade four years earlier. However, it estimates the 9th grade size by averaging 8th, 9th, and 10th grade enrollments and also uses a formula to adjust for population changes over the four years due to such factors as mobility and retention in grade.

» **Urban Institute's Cumulative Promotion Index (CPI).** The CPI, developed by Christopher Swanson and Duncan Chaplin of the Urban Institute, uses projected promotion rates to calculate the probability that a student entering 9th grade will graduate from high school, with a diploma, on time. In contrast with the NCES and Greene methods, both of which estimate what happens to a single cohort over four years, CPI creates a synthetic cohort. The promotion rate (the fall enrollment of the following year divided by the enrollment of year before) for each grade, 9 through 12, is calculated. The results are then multiplied together to project an estimated graduation rate for the 9th grade cohort.

California's Graduation Rate

WestEd's review of such cross-comparisons in California involved studies based on four estimating methods. Findings support the following three conclusions:

1. *Evidence suggests that fewer than 70 percent of high school students graduate.*

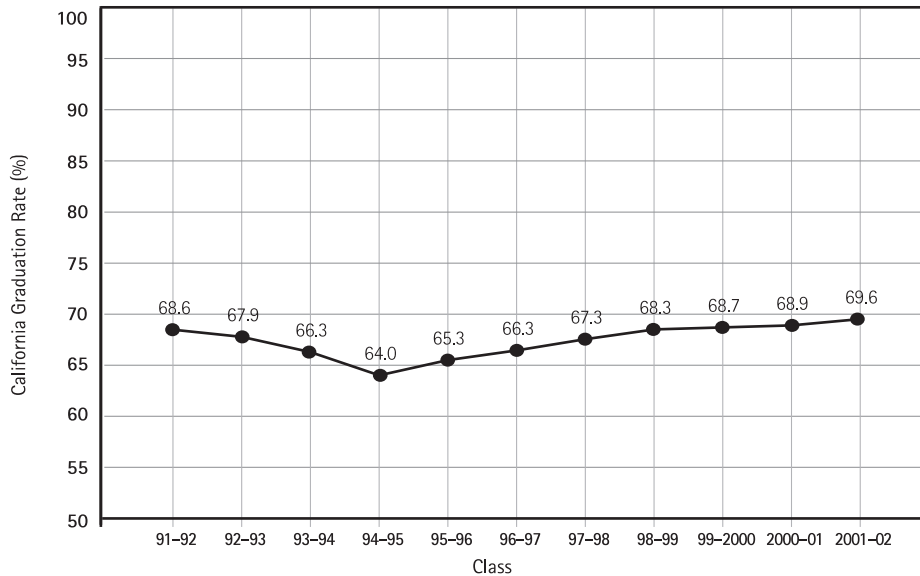
Calculations using three of the four methods show this to be the case. The breakdown across methods is:

TABLE 1: 2001 California Graduation Rate Calculated by Four Methods

CA Grad Rate (%)	Methodology
86.7	NCES formula (dropout data)* ¹
68.9	CDE Basic Completion Ratio (enrollment data) ²
67.0	Greene method (enrollment data) ³
68.9	Urban Institute CPI (enrollment data) ⁴

*Calculated by CDE for NCLB.

FIGURE 1: California High School Completion Rate Over Time



Source: CDE

2. *The rate has changed little over time.* According to the one source of longitudinal data – CDE's annual basic completion ratio – the statewide rate between 1991–92 and 2001–02 showed little variation. (See Figure 1.)

3. *A racial/ethnic gap persists.* Though the different methods show considerable variation by district and by measurement method, with some districts doing much better than others, the overall picture is troubling. In at least three of the state's largest urban districts, students appear to have less than a fifty-fifty chance of graduating. (See Table 2.) And even in the best-performing large districts, regardless of method used, white and Asian students graduate at higher rates than their Latino and African American peers. (See Table 2.)

State-level data show that a statewide racial/ethnic gap has been consistent over time. (See Figure 2.) Yet overall and for each subgroup except American Indian, California's rates are better than the national averages. (See Table 3.)

Note: Tables 2 and 3 and the box on page 7 use data from the Urban Institute, which recently issued an unusually comprehensive report including demographic breakdowns for California and its 10 largest districts. Its findings are consistent with other sources.

TABLE 2: Graduation Rates for California's 10 Largest Districts 2001*

	American Indian	Asian	Hispanic	Black	White	Total
Los Angeles	50.8	76.6	40.2	48.1	68.1	46.4
San Diego	79.5	77.9	47.0	49.2	74.0	61.3
Long Beach	59.9	84.6	67.0	69.7	83.7	74.8
Fresno	--	77.7	44.3	--	68.4	55.8
Santa Ana	33.3	66.5	61.0	32.2	--	61.7
San Francisco	--	76.3	48.4	49.2	64.1	66.7
Oakland	9.3	49.5	25.3	23.4	56.6	30.4
Sacramento	43.4	89.3	61.8	63.8	59.0	70.0
San Bernardino	27.0	65.2	40.0	37.2	45.0	42.1
San Juan	74.2	90.4	--	76.8	80.3	80.9

*Listed in descending enrollment order. For each, the largest racial/ethnic group is Hispanic except San Francisco (Asian/Pacific Islander), Oakland (African American), and San Juan (white). All locations are central city except San Juan, which is suburban.

Source: Urban Institute

TABLE 3: California 2001 Overall Graduation Rates by Race/Ethnicity Compared to National Average

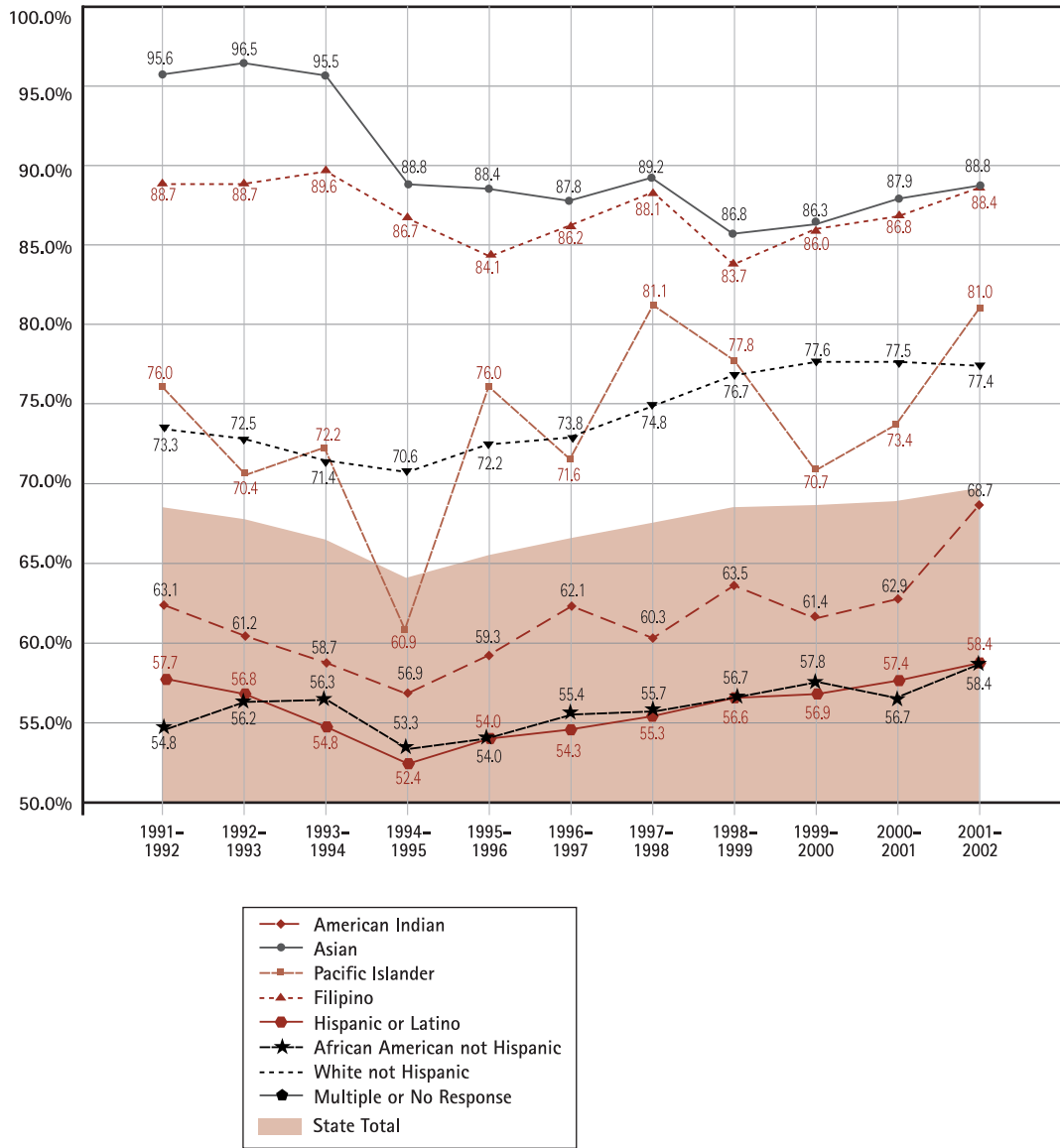
	American Indian	Asian	Hispanic	Black	White	Total
California	49.7%*	82.0%	57.0%	55.3%	75.7%	68.9%
National	51.1%	76.8%	53.2%	50.2%	74.9%	68.0%
California Rank**	11 (of 34)	5 (of 34)	11 (of 34)	17 (of 40)	19 (of 43)	32 (of 51)

*Moderate coverage – rate covers between 50 and 75 percent of student population.

**For no subgroup could comparisons be made to all 50 states plus the District of Columbia. In some cases, necessary data fields were not recorded in the Common Core of Data, Local Educational Agency and School Surveys, NCES, on which the Urban Institute's calculations were based. Others were cases of low coverage (i.e., the rate was not reported because the statistic covers less than 50 percent of the student population).

Source: Urban Institute

FIGURE 2: Graduation Rates in California Public Schools By Ethnic Groups 1992–2002



Source: Based on CDE data using basic completion ratio.

Final Note

California, in common with a number of other states, is working to remedy the calculation problem for graduation rates. The state is developing a Longitudinal Pupil Achievement Data System that will include unique, personally anonymous identifiers that will allow for tracking each student's progress as he or she moves through the grades. Scheduled for implementation by 2006, this system may be operationally delayed by state budget woes constraining districts' ability to acquire needed software.

Meanwhile, existing data, despite methodological limitations, reveal a policy urgency: California has an unacceptably low graduation rate overall, with a problem of crisis proportions for Latino and African American students.

Endnotes

¹ CDE Educational Demographics Unit. *Graduation Rates Based on NCES Definition – Statewide Report 2000–01*.

² CDE Educational Demographics Unit. *Graduation Rates in California Public Schools by Ethnic Group, 1984–85 through 2001–02*.

³ Greene, Jay and Forster, Greg. *Public High School Graduation and College Readiness Rates in the United States. Appendix Table 1: High School Graduation Rate by State and Race*. Manhattan Institute for Policy Research. September 2003.

⁴ Swanson, Christopher B. *Who graduates? Who doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001*. Washington, DC: The Urban Institute, Education Policy Center, February 25, 2004.

State Graduation Rate Comparison, 2000–2001

State	Rate*
New Jersey	86.3
Idaho	79.6
North Dakota	79.5
South Dakota	79.4
Minnesota	78.9
Utah	78.3
Iowa	78.2
Wisconsin	78.2
Vermont	77.9
Nebraska	77.3
Montana	77.1
Connecticut	77.0
Pennsylvania	75.5
Maryland	75.3
Illinois	75.0
Kansas	74.1
Michigan	74.0
New Hampshire	73.9
Virginia	73.8
Oregon	73.6
Rhode Island	73.5
Missouri	72.9
Indiana	72.4
Wyoming	72.4
Maine	72.1
Massachusetts	71.0
Ohio	70.7
West Virginia	70.7
Arkansas	70.5
Oklahoma	69.8
Colorado	69.0
California	68.9
National Average	68.0
Arizona	67.3
Hawaii	66.0
Kentucky	65.3
District of Columbia	65.2
Texas	65.0
Louisiana	64.5
Delaware	64.3
Alaska	64.2
North Carolina	63.5
Washington	62.6
Alabama	61.4
New York	61.4
New Mexico	61.2
Mississippi	58.0
Tennessee	57.5
Georgia	55.5
Nevada	54.7
Florida	53.0
South Carolina	50.7

California Rank 32nd

* Percentages
Source: Urban Institute