

**institute for higher education  
leadership & policy**

# CONSEQUENCES OF NEGLECT:

Performance Trends in California Higher Education

Colleen Moore  
Jeremy Offenstein  
Nancy Shulock

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California State University, Sacramento



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Q Comparatively higher participation in college too often fails to lead to degree completion. While graduation rates for full-time students are high, California performs



## Key Issues in Preparation

Adoption of the Common Core Standards offers opportunities to improve college readiness

In 2010 the State Board of Education voted to participate in the Common Core State Standards Initiative to help students leave high school with the skills needed for success in college and career training. The Common Core Standards align well with some current standards of college readiness,<sup>9</sup> and could help address criticism that California's current standards, while rigorous, provide superficial coverage of many topics rather than in-depth coverage of the most important topics.<sup>10</sup> New tests developed for the new standards could better assess college readiness on the most relevant dimensions.<sup>11</sup> Such tests might

# How is California Performing?

## Preparation

Table 1  
K-12 Preparation Measure by Region

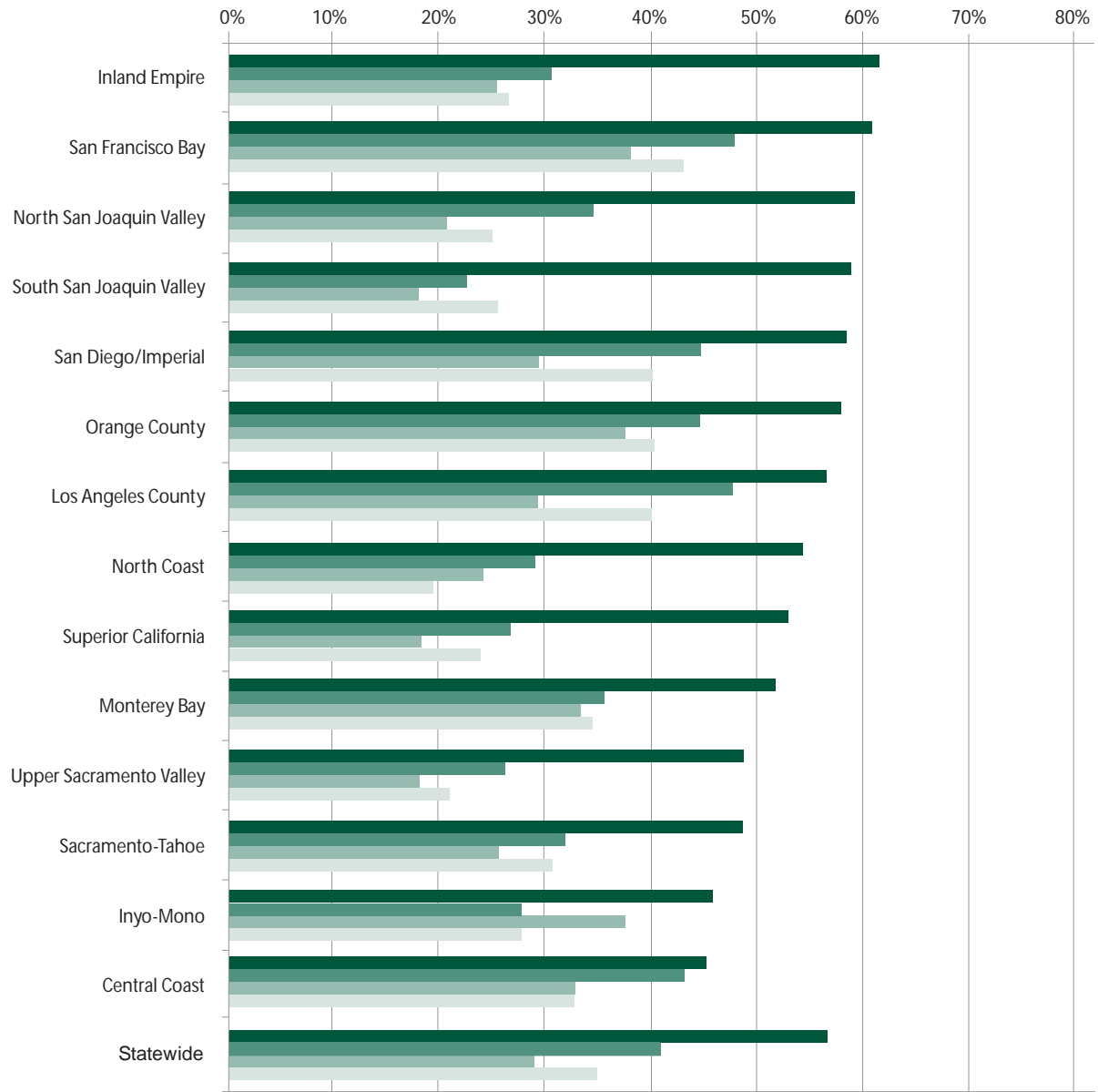
Region	Share of 8th Graders at or Above "Proficient" in Math, 2010*	Share of 8th Graders at or Above "Proficient" in Language Arts, 2010	Number of AP Scores $\geq 3$ per 1,000 11th and 12th Graders, 2008-09	Number of Scores on SAT $\geq 1500$ and on ACT $\geq 21$ per 1,000 HS Seniors, 2008-09
Inyo-Mono	53%	55%	132	210
Orange County	50%	63%	414	377
Central Coast	49%	58%	277	290
San Francisco Bay	47%	61%	366	384
San Diego/Imperial	44%	60%	330	282
Sacramento-Tahoe	44%	58%	178	246
Superior California	40%	57%	130	184
North Coast	39%	52%	118	172
Upper Sacramento Valley	39%	53%	102	163
Monterey Bay	37%	49%	172	201
Los Angeles County	37%	48%	264	232
North San Joaquin Valley	35%	48%	124	149
South San Joaquin Valley	34%	45%	109	113
Inland Empire	32%	50%	152	150

Source: Author calculations based on data from the California Department of Education

\* Reflects the performance of students who took the CST for either General Mathematics or Algebra I

Q Twenty percent of California 11th graders participating

Figure 1  
Enrollment in College Preparatory Courses by Region



- Share of 8th Graders taking Algebra, 2009-10
- Enrollment in Chemistry/Physics as a Share of 11th-12th Grade Enrollment, 2008-09
- Enrollment in Advanced Math Courses as a Share of 11th-12th Grade Enrollment, 2008-09
- Share of HS Grads Completing A-G, 2009

Source: Author calculations based on data from the California Department of Education





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Figure 4

# How is California Performing?

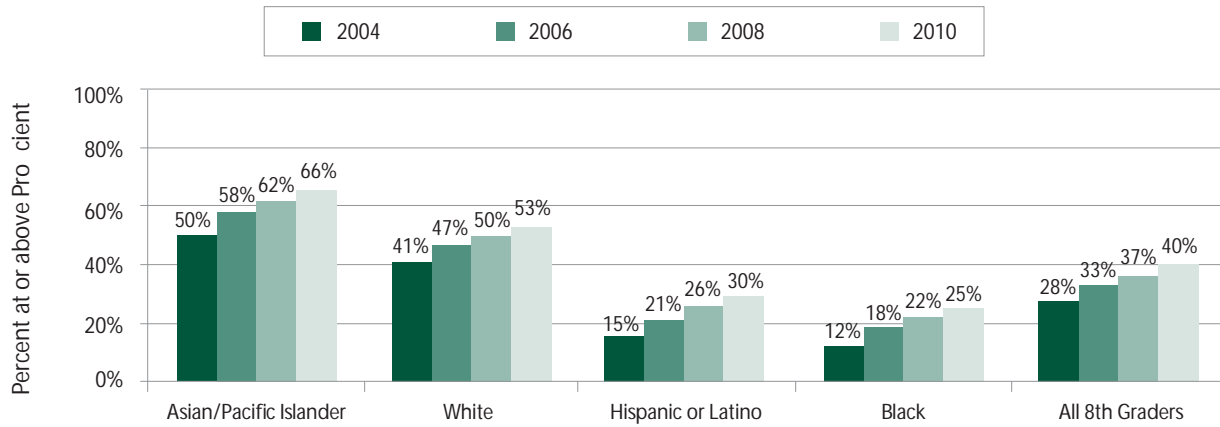
## Preparation

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### Performance Trends

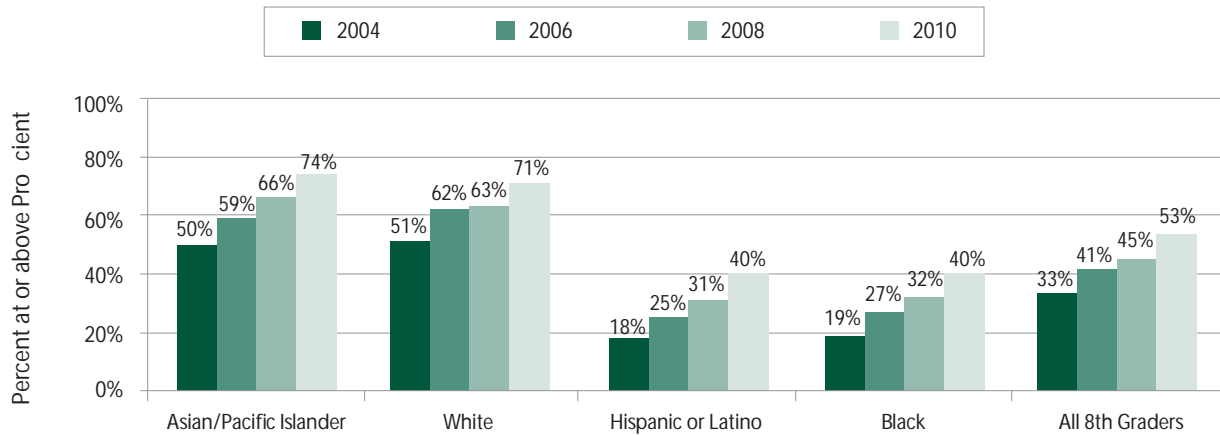
- Q The share of 8th graders scoring at or above the proficient level in math increased over the last several years, from 28% in 2004 to 40% in 2010. Students of all racial/ethnic groups improved their performance (Figure 6), but substantial disparities remain between white and Asian students on the one hand and black and Latino students on the other.
- Q Math proficiency improved in all regions of the state, with

Figure 6  
Trend in Math Proficiency of 8th Graders



Source: Author calculations based on data from the California Department of Education

Figure 7  
Trend in Language Arts Proficiency of 8th Graders

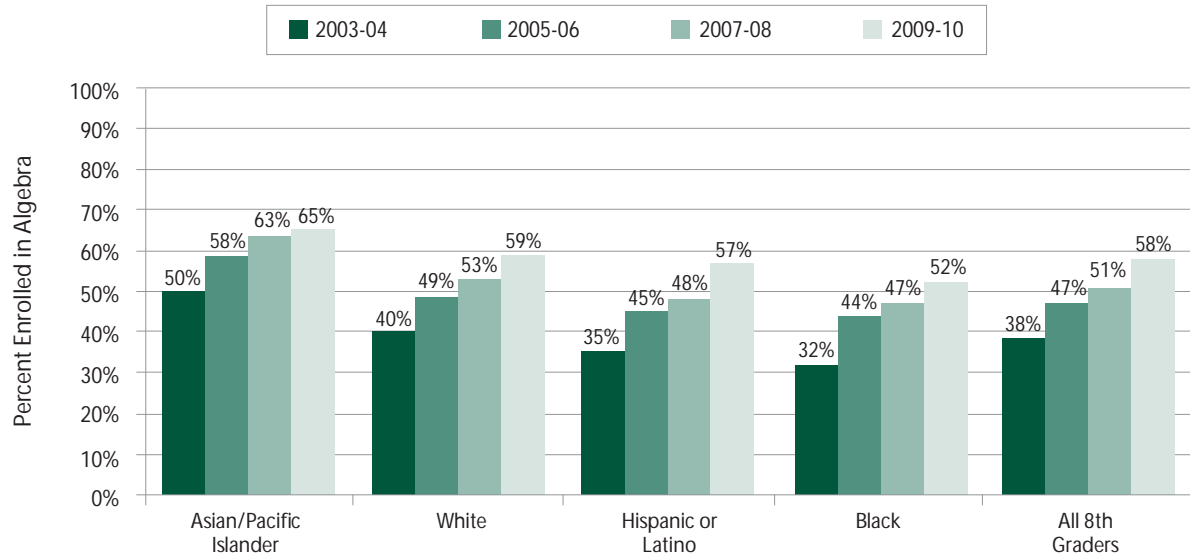


Source: Author calculations based on data from the California Department of Education

# How is California Performing?

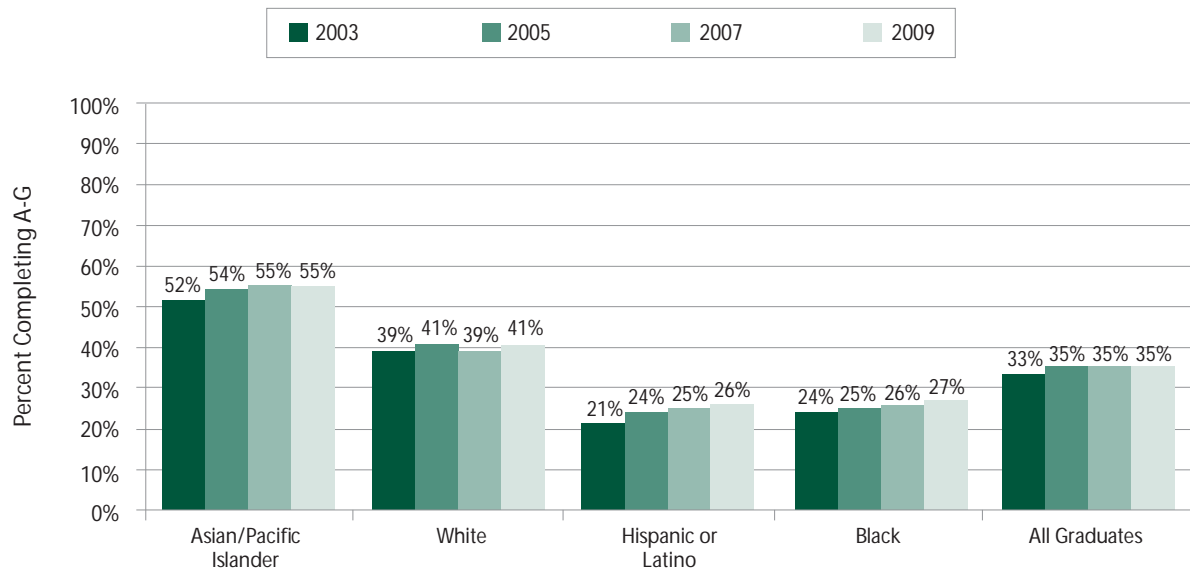
## Preparation

Figure 8  
Trend in Percentage of 8th Graders Taking Algebra



Source: Author calculations based on data from the California Department of Education

Figure 9  
Trend in High School Graduate Completing A-G Course



Source: Author calculations based on data from the California Department of Education



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Most of the NCHEMS measures of affordability are from 2008 and precede the worst impacts of the financial crisis. As of 2008, the state's overall performance was average and reflects good performance on some measures and poor performance on others. Relative to other states, California performs better on measures of affordability that do not account for the cost of living. In particular, low income families need a smaller share of their income to cover the cost of tuition and fees at a community college and the state has more aid directed towards low income families. California's performance is worse on measures of affordability that include the cost of room and board. With room and board included, attending the state's private four-year colleges and public two-year colleges is more expensive than in most other states while the cost of attendance at a public four-year college is average.

Since 2008, however, the economic crisis has severely eroded California's higher education budgets. To make up for the lost revenue, tuition has increased in all three segments and most dramatically in the CSU and UC, while family income has stagnated. While other states have seen similar trends, attending college in California may be less affordable relative to other states today than it was in 2008 given the state's higher unemployment and slower economic recovery. Concerns about affordability have certainly increased, as 57% of parents with children 18 or younger are very worried about being able to afford college, compared to 43% who felt that way three years ago.<sup>21</sup>

## Key Findings

Data are not available from state sources to calculate affordability measures by region or by race/ethnicity. Student fee levels within each segment of higher education are the same across the state,<sup>22</sup> while average household income and cost of living vary both by region and by race/ethnicity. Affordability calculations similar to those used by NCHEMS would require data to adjust for student financial aid by region and race/ethnicity. Instead of providing additional detail by region and race/ethnicity, we look at how the affordability trends may be different across the segments and for different groups of students because of the state's financial aid policies.

- Q The Cal Grant program is structured to protect eligible students from the impact of rising tuition. Because the size of the Cal Grant increases to cover tuition increases, those UC and CSU students who receive tuition assistance through Cal Grants have not been adversely affected by recent tuition increases. Financially needy community college students have been held harmless from fee increases as well because their fees are waived under the Board of Governors Fee Waiver program. Rising tuition has most certainly diminished affordability, however, for students who do not qualify for Cal Grant tuition aid because they do not meet income, academic, or other requirements (e.g., undocumented immigrants, age/time out of high school).

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## Key Issues in Affordability

### Budget issues forcing a change in California's approach to tuition/fees

The cost to attend a California public university has increased dramatically in recent years, as large increases have been used to offset recession-related cuts in state appropriations. The state's Master Plan promised "tuition-free" college education to state residents, charging only "fees" to cover specialized services rather than basic educational costs. The universities maintained this terminology long past the point at which "fees" began to cover basic educational costs, resorting only recently to the term "tuition" to acknowledge the obvious.<sup>23</sup> This change in terminology represents a major shift for a state where affordability has always been defined as keeping the price low for all students (needy and non-needy) and providing financial aid to those with need. But the shift has not yet been matched by any real acknowledgment that a new affordability policy is needed, one based on deliberate choices about the distribution of costs between students and taxpayers at each segment, levels of annual increases in tuition, and how best to target financial aid to both maintain access and achieve the best student outcomes. Proposals have surfaced to allow the most competitive UC campuses to charge higher tuition – in effect, what the market will bear – a policy change that would dramatically change the role of our "public" universities.

### CCC fee increases could increase access to classes and services

Nowhere have fee increases generated more opposition than in the community colleges, despite the fact that fees remain the lowest in the nation, by far, and will remain so even after the scheduled increase to \$36 per unit. Affordability of community college has little to do with fees since they are waived for students after minimal documentation and with even \$1 of financial need, and they represent only 5% of the cost of attendance for those who pay them, dwarfed by much larger costs like housing, textbooks, and transportation.<sup>24</sup> The Legislative Analyst's Office has noted that California's low fees have resulted in the state paying for costs that the federal government would otherwise pay through higher education tax











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## Key Findings: Racial/Ethnic Differences

- Q Among Asian high school graduates, 67% go directly to college, a rate substantially higher than for other racial/ethnic groups (Figure 14).<sup>32</sup>
- Q The direct college-going rates of black and Latino high school graduates are comparable to those of white graduates. But there is a big disparity on the second measure shown in the figure - a substantially lower percentage of black and Latino 9th graders enroll in college within four years, reflecting lower high school graduation rates among these populations.

## Performance Trends

- Q The college-going rate of high school graduates increased between 2003 and 2007, but declined in 2009 (Figure 15), a pattern of performance trends that is consistent with the overall performance trends of the state's higher education system.



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earlier. A possible explanation for the higher relative performance of the two year colleges is that community colleges serve large numbers of working adults whose degrees add to those earned by students enrolling directly from high school. There is no equivalent at four-year institutions, which serve more traditional college-age students entering directly from high school.

### Key Findings: Regional Differences

- Q The number of baccalaureate degrees awarded as a share of enrollment in UC and CSU is highest for students from the Upper Sacramento Valley (25.8) and lowest for students from the Inland Empire (17.8) (Figure 16).

Q

California's overall completion performance is average. The state ranked particularly high on the graduation rates for full-time, first-time students in two- and four-year colleges, but ranked low on measures of completion that compared the number of degrees/credentials produced to enrollments. Multiple factors could explain the discrepancy between the state's rankings on these two types of measures. One possible explanation is that graduation rates in California are comparatively high because the state's data systems are able to track enrollments and graduation across multiple campuses. Other states not organized into systems, or without that capacity to track students at the system level, can't count students as completers if they transfer to another state school. Another explanation is that, while full-time students complete at relatively high levels, the state has large numbers of part-time students who are less likely to graduate, pulling the ratio of awards to enrolled students down to levels lower than in other states.

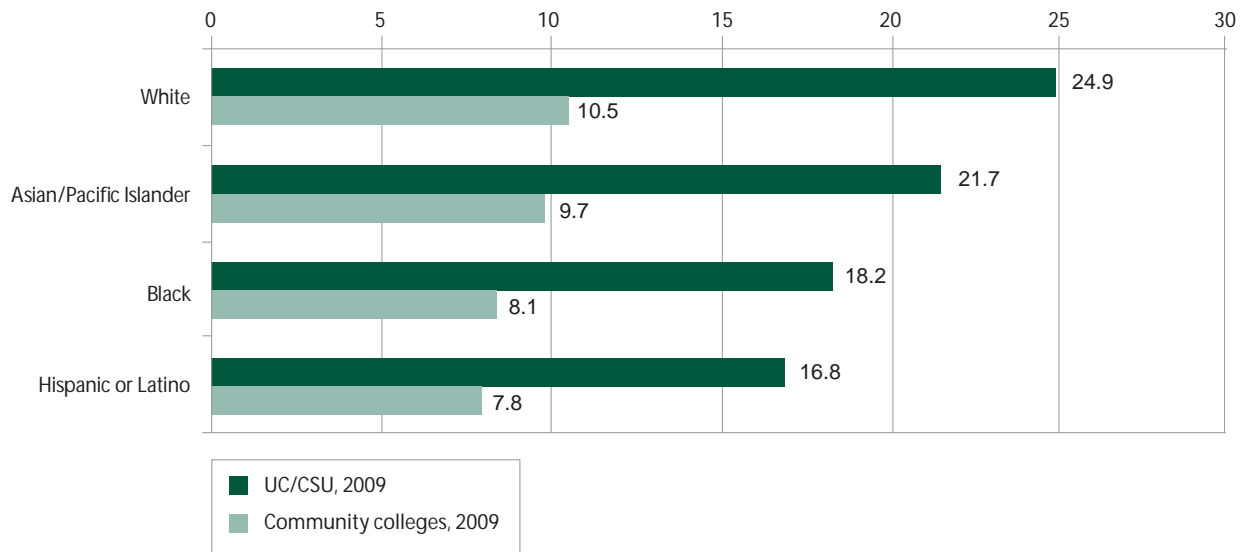
There is also a discrepancy in the relatively high number of associate degrees awarded per 100 high school graduates three years earlier and the relatively low number of bachelor's degrees awarded per 100 high school graduates six years





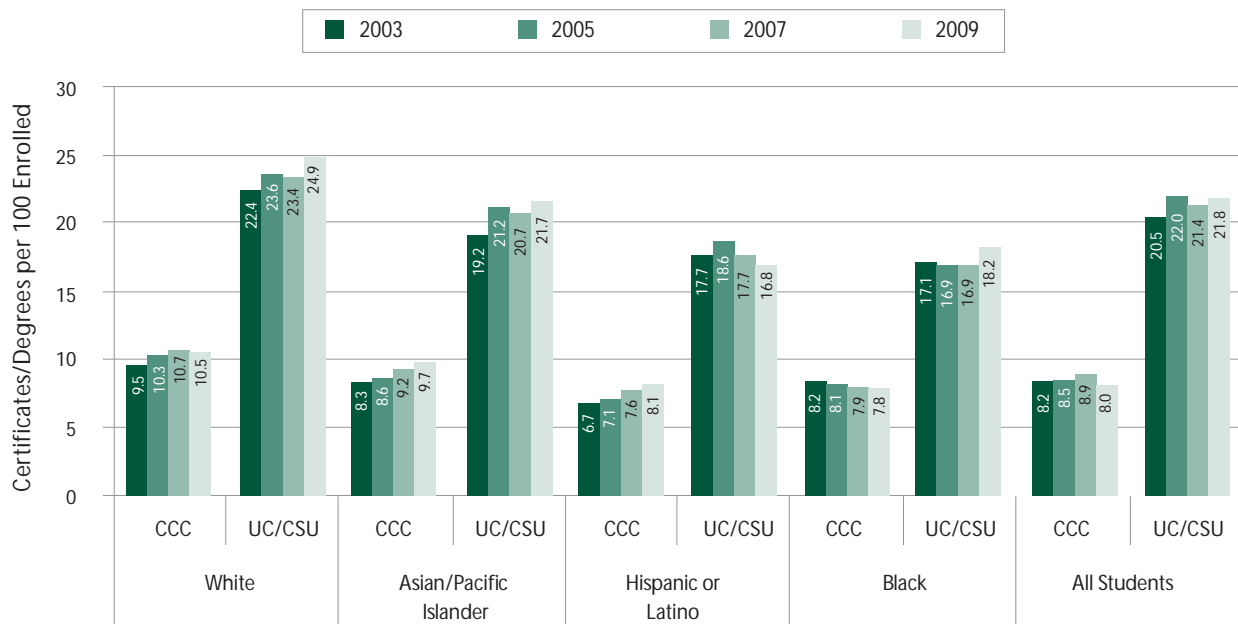


Figure 17  
 Certificates and Degrees Awarded per 100 Undergraduate Enrolled by Race/Ethnicity



Source: Author calculations based on data from the California Postsecondary Education Commission

Figure 18  
 Trend in Number of Certificates and Degrees Awarded per 100 Undergraduate Enrolled



Source: Author calculations based on data from the California Postsecondary Education Commission



## Key Issues in Benefits

### State still lacks goals and strategic thinking to guide its higher education enterprise

Despite growing awareness of weak planning and coordination in California and the examples set by other states, California lacks a strategic plan, or what some states call a public agenda, for higher education that sets goals across all sectors for college participation and degree completion and outlines the means to achieve the goals. Such planning would allow California lawmakers to identify appropriate policies and investments and to set up an effective accountability process for monitoring progress toward achievement of the goals. The states that are leading the way with new approaches in an effort to increase completion and garner the benefits of increased educational attainment for state economic and social health, are doing so under the guidance of such strategic thinking and planning. Goals to reduce the current disparities in college success and degree completion across the major racial/ethnic groups in the state will be an important part of any strategic plan for California. Rather than move to establish effective coordination, the Governor eliminated the existing coordinating agency, which has not provided the needed coordination and planning. A new commission made up of business and civic leaders - called California Competes - has been formed to try to fill the void of leadership over California higher education.<sup>41</sup>

### Urgent need to improve Latino educational attainment

In addition to the retirement of the highly-educated baby boom generation, California's decline in the share of college educated adults across the generations is due to the lower education levels of the fast-growing Latino population. The share of Latinos with a bachelor's degree has increased from 7% to 10% since 1990, and is projected to be only 12% in 2020.<sup>42</sup> While college attainment is increasing, the Latino population is projected to remain the racial/ethnic group with the lowest share of college-educated adults in California. As the share of the working-age population that is Latino continues to increase, the lower college attainment levels become more critical to the state's overall education level and the competitiveness of its workforce. Latinos grew from 22% of the working-age population in 1990 to 34% currently, and are projected to grow to 50% by 2040.<sup>43</sup>

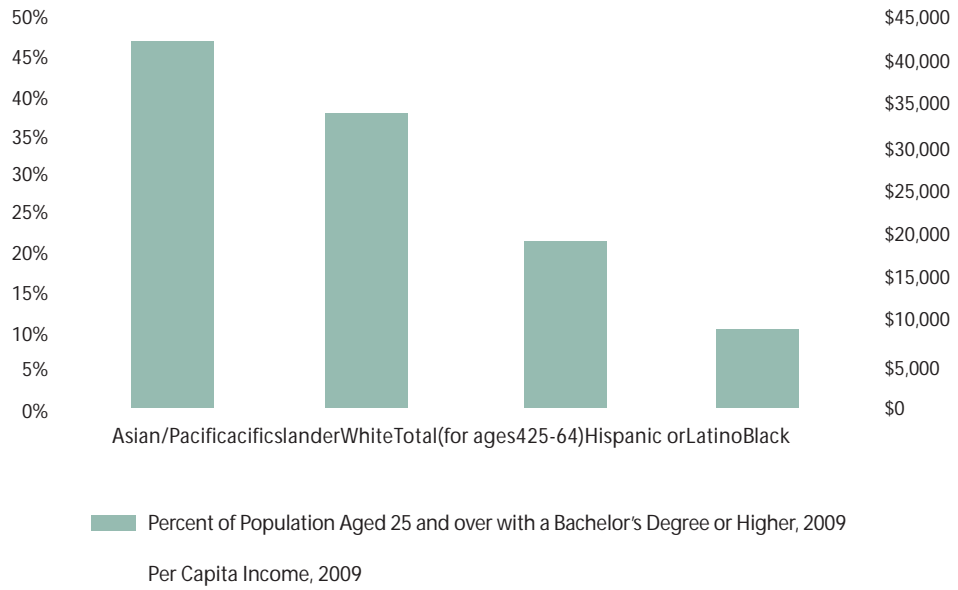
### Are the public benefits of higher education in jeopardy?

When considering both the economic and civic benefits of higher education, it seems appropriate to question the extent to which Californians recognize a public, or civic, benefit. Higher education is a public good, and its benefits are shared by all. It is a public good because it is non-rival and non-excludable. It is a public good because it is non-rival and non-excludable. It is a public good because it is non-rival and non-excludable.

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Figure 20  
Educational Attainment and Per Capita Income by Race/Ethnicity



Source: Author calculations based on data from Census Bureau, American Community Survey 2009, Table B15002 (for educational attainment) and Tables B19313 and B03002 (for per capita income)

Figure 21  
Trend in Educational Attainment

Source: Author calculations based on data from Census Bureau, American Community Survey

# How is California Performing?

## Finance

### Finance: Average

- + California ranks 10th in state and local support for higher education per capita.
- +/- The state ranked 22nd on the dollar amount of state and local support per FTES.
- +/- The state ranked 24th on state and local appropriations as a percentage of state and local tax revenues.
- The state ranks at the bottom in total revenues per full-time equivalent student.

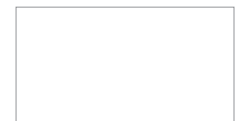
Based on data for 2008, the amount of state and local tax revenues that California appropriates per full-time equivalent student (FTES) ranks the state a little above the median on this measure. However, low tuition, particularly in the community colleges, places the state second from the bottom in revenues per FTES. The finance measure on which the state performs best is state and local support per capita – a measure that reflects the large size of the public postsecondary sector in California compared to other states where private institutions are more prevalent. The discrepancy between California's high ranking on support per capita and its low ranking on support per FTES tells us that the state supports a larger share of its people than most states but does so at a more moderate level of

funding per full-time student. And as stated above, the low total funding per student is explained in large part by the very low tuition collected relative to other states.

The state ranks near the median on two measures of the emphasis the state places on higher education. The state ranks 19th on the share of personal income spent on higher education – for every \$1000 of personal income in the state, the state spends \$9 dollars on higher education. Of the state and local tax revenues, as well as lottery revenues, California spends a little more than 7% on higher education. The share of revenues spent on higher education is higher in California than in 26 other states.

Data from sources other than NCHEMS indicate that California's performance in finance has not improved since 2008. State and local appropriations for higher education amounted to \$5,941 per FTES in 2010, somewhat below the national average of \$6,451 (Figure 22) and down from \$7,177 in 2008.

Figure 22  
Funding for Higher Education, 2010



Source: State Higher Education Executive Officers, *State Higher Education Statistics*, 2010. This data source uses much higher enrollment counts (FTES) than reported in IPEDS data, accounting for lower per-FTES funding levels for all states, but not affecting the validity of inter-state comparisons.

## Key Issues in Finance

Budget cuts threaten California's future prosperity. California's current budget problems are affecting all points in the education pipeline. Per-pupil spending in K-12 decreased by 5% from \$8,235 in 2007-08, before the recession, to \$7,820 in 2010-11, with more cuts likely in the 2011-12 budget.<sup>47</sup> Steep increases in tuition are degrading at least the perception of affordability of higher education in the state, and high unemployment, stagnant family income and potential cuts in some financial aid programs make this perception a reality for increasing numbers of students. Cuts to college budgets (in real terms) reduce access and leave the colleges without adequate resources to provide students with the support needed to complete a college certificate or degree. These circumstances could depress educational attainment at the same time that California needs big gains in the number of people with college credentials. Curtailing investments in the state's future workforce and tax base is extremely counterproductive.

### Better fiscal data and more refined policy attention are needed

The standard approach that lawmakers take to fiscal decision-making for higher education is not well suited to today's challenges. Typically, funding decisions are made year-to-year, depending on what is available and with little coordination across the three systems. Discussions in the legislature focus on whether the state can afford to increase or decrease the annual allocations, fund projected enrollments, and cover cost-of-living increases. Far less time is spent articulating what outcomes the state wants from higher education as a whole and how it can best use available funds to accomplish those ends. Lawmakers do not ask for or receive the kinds of data they would need to answer questions like how the institutions spend their funds, what share of educational costs is and should be borne by students, what is the relative cost of educating students in each system and for various kinds of degrees, and what systemic changes might lead to greater productivity. Data are available through a national project that can help lawmakers refine their fiscal planning for higher education.<sup>48</sup>

### New finance policies could increase productivity

The state's funding formulas for its colleges and universities create incentives for enrolling students but

provide no fiscal incentives for student success, as they distribute funds based on enrollment early in the term (e.g., 3rd week for CCC, 4th week for CSU). After that point, colleges have no fiscal incentive to provide the necessary attention and support services to prevent students from dropping or failing classes, taking classes that do not help them progress toward a degree, or dropping out altogether. The weakness inherent in this approach is of increasing concern as more and more entering students are underprepared to succeed in college and require much more than access to classes in order to be successful. Across the country, states are deciding that they can no longer afford to invest in enrollment irrespective of success and many are adjusting their funding formulas to build in some incentives for student progress and completion in order to the incentives to enroll students. States are developing a variety of approaches for community colleges and universities that include provisions, such as multipliers, to ensure that institutions are not discouraged by the new funding approaches from serving under-prepared students. States are increasingly looking to performance funding because of its potential to align resources with success goals, thereby maximizing the impact of increasingly scarce funds. By rewarding outcomes in the funding formula, states create incentives for institutions to adopt good practices that promote student success and to find innovative ways to serve students at a lower cost. Providing colleges and universities with flexibility in how they use their funds is another aspect of finance policy that deserves attention. Categorical programs and a plethora of rules, regulations, and reporting requirements, especially in the CCC, introduce constraints that can dampen the productive use of resources.

## Resources

- IHELP, [http://www.ihelp.org](#)
- LAO, [http://www.lao.ca.gov](#)
- Delta Cost Project, [http://www.deltacostproject.org](#)







# Appendix 1

## Methods for Calculating California's Performance Relative to Other States

### 1. Collected data on performance measures

For each index, we identified measures similar to those used in [Yip, et al., 2010](#). Most of the measures came from the National Center for Higher Education Management System's Information Center for Higher Education Policymaking and Analysis.<sup>49</sup> However, we updated the data on eighth grade performance on the National Assessment of Educational Progress (NAEP) using data from the National Center for Education Statistics.<sup>50</sup>

### 2. Ranking California relative to other states

For each measure we identified the score for the highest performing state, the score at the 75th percentile (i.e., higher than 75% of the other states), the median score, the 25th percentile score (i.e., higher than 25% of the other states), and the lowest score. These five points were used to place California into the corresponding categories of among the best states, better than most states, average, worse than most states, and among the worst states (see Figure A1). For example if California's score on a measure was closer to "better than most" than to "among the best" or "average," California's performance was ranked as "better than most." Based on the performance category, the state was then assigned a score ranging from one to five with five being the best performance.

### 3. Calculating the index score

For most performance areas, the state's score on each measure was weighted using weights similar to those used in the 2008 [Yip, et al., 2010](#) report, which were "determined by existing research documenting the significance of these variables as a measure of category performance."<sup>51</sup> In cases where data were not available for each of the sub-dimensions of the performance category, the weights were redistributed proportionately across the available measures. Similarly, in cases where we used additional measures we reallocated the weights accordingly. The [Yip, et al., 2010](#) reports did not assign a grade for higher education finance but we did. There were five measures for finance that we grouped into two categories, per student funding measures and measures of the state emphasis on funding higher education. Each of these categories was given equal weight. The weights are shown in Table A1.

Figure A1

Range of States Scores	Corresponding Performance Category	Rank Score
Highest Score	Among the Best	5
75th Percentile	Better than Most	4
Median	Average	3
25th Percentile	Worse than Most	2
Lowest Score	Among the Worst	1

The weighted scores were summed to form an index score ranging from 1 to 5. This score was then used to assign the state to a performance category for the overall index.

### 4. Example: Scoring the participation category

Table A2 shows California's performance on the four measures for the participation area. In California, the number of first-time freshmen was 44% of the number of 9th graders four years earlier. The performance of all 50 states ranged from 26% to 60% and California's performance was closest to the median (44%), giving it a performance

Table A1  
Weight for Performance Measure

Measure	Weight
<b>Preparation</b>	
High School Completion (47.2%) Public high school graduation rate (2008)	.472
K-12 Student Achievement (52.8%)	
Number of AP scores at 3 or above per 1,000 juniors/seniors (2007)	.165
High ACT/SAT scores per 1,000 HS grads (2007; "high" = 25+/1780+)	.165
Percent of 8th graders at or above proficient on NAEP - MATH (2009)	.050
Percent of 8th graders at or above proficient on NAEP - READING(2009)	.050
Percent of 8th graders at or above proficient on NAEP - WRITING(2007)	.050
Percent of 8th graders at or above proficient on NAEP - SCIENCE (2009)	.050
<b>Affordability</b>	
Family ability to pay (first-time, full-time undergraduates) (50%)	
Percent of family income to pay for private 4-year college (2008) (lowest)	.260
Percent of family income to pay for public 4-year college (2008) (lowest)	.180
Percent of family income to pay for public 2-year college (2008) (lowest)	.060
Strategies for affordability (40%)	
State grant aid targeted to low-income families as share of Pell grant aid (2008) (highest)	.200
Share of income poorest families pay for tuition at lowest priced college (2008) (lowest)	.200
Reliance on loans (10%)	
Average loan amount students borrow each year (2007) (lowest)	.100
<b>Participation</b>	
Young Adults (66.67%)	
9th graders chance for college within 4 years (2008)	.222
Percent of 18-24 year olds enrolled in college (2009)	.222
Direct college-going rate (2008)	.222
Working-Age Adult (33.33%)	
Enrollment of 25-49 year olds as share of 25-49 yr olds with no BA (2009)	.330
<b>Completion</b>	
Persistence (20%)	
Retention rate - first time college freshmen returning second year (2008)	.200
Completion (80%) HEMS includes several of these measures under Productivity rather than Completion	
Graduation rate = 6-year for bachelors (2008)	.114
BAs awarded per 100 undergraduates (2005)	.114
Graduation rate = 3-year for associate (2008)	.114
Ratio of degrees/credentials awarded per 100 students in 2-years (2005)	.114
Pipeline - transition-completion rate from 9th grade to college (2008)	.114
AA awarded per 100 HS grads 3 years earlier (2007)	.114
BAs awarded per 100 HS grads 6 years earlier (2007)	.114

# Appendix 1

Table A1 (continued)

Measure	Weight
<b>Benefits</b>	
<b>Educational Achievement (37.5%)</b>	
Percent of population age 25-34 with BA (2009)	.125
Percent of population age 35-44 with BA (2009)	.125
Percent of population age 45-64 with BA (2009)	.125
<b>Economic Benefits (31.25%)</b>	
Difference in Median Earnings Between a High School Diploma and an Associates Degree 25 to 64 Year Olds (2007)	.104
Difference in Median Earnings Between a High School Diploma and a Bachelors Degree 25 to 64 Year Olds (2007)	.104
Per capita personal income (2007)	.104
<b>Civic Benefits (31.25%)</b>	
Charitable Giving - Percent of Itemizers on Federal Tax Returns Declaring Charitable Gifts (2005)	.156
Percent of the Eligible Population Voting (2006)	.156
<b>Finance</b>	
<b>Per student funding (50%)</b>	
State and local support per FTES (2008)	.250
Total revenues (appropriations + tuition) per FTES (2008)	.250
<b>State higher education financing emphasis (50%)</b>	
State and local support for higher ed per capita (2008)	.167
State and local support for higher ed per \$1000 of personal income (2008)	.167
Higher ed priority – appropriations relative to state/local tax revenues (2005)	.167

Table A2

Example of Scoring Performance Categories Participation

<b>Example of Scoring Performance Categories Participation</b>										











Tennessee Higher Education Commission

12. National Center for Public Policy and Higher Education reports available at [www.highereducation.org/reports/reports.shtml](http://www.highereducation.org/reports/reports.shtml)

Higher Education Research Institute (2010)

Higher Education Research Institute (2010)

13. PolicyLink reports available at <http://www.policylink.org/site/c.klXLBMNJrE/b.5158569/k.A334/Publications.htm>

PolicyLink (2010)

14. Public Policy Institute of California reports available at [www.ppic.org/main/pubs.asp](http://www.ppic.org/main/pubs.asp)

Public Policy Institute of California (2010)

Public Policy Institute of California (2008)

15. Tennessee Higher Education Commission

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of students at the higher education institutions does not report their race/ethnicity, a problem that is less prevalent in the high school data on graduates. To the extent that some groups of students might be more likely than others not to report their race/ethnicity (and therefore are not included in the numerator of the measure), this could affect the differences in these rates across groups.

33 It is also worth noting that a growing number of higher education students in California are not providing information on their race, complicating efforts to make these kinds of calculations. To the extent that some groups of students might be more likely to refuse to provide information on race than others, differences in the college-going rate or in the change in the rate from one year to the next could be affected.

34 The California Postsecondary Education Commission shows data on college-going rates from 1985 to 2009 at <http://www.cpec.ca.gov/StudentData/CACGRtrendGraph.asp>. The college-going rates shown in the CPEC trend graph were calculated somewhat differently from the rates presented here, but the overall trends are similar.

35 Lay, S. (2010). *2020*. Sacramento, CA: Community College League of California.

36 Bosworth 2010; Jacobsen, L. & Mokher, C. (2009). Washington, DC: Hudson Institute Center for Employment Policy and CNA Analysis and Solutions; Bailey, T., Kienzl, G., & Marcotte, D. (2004). Washington, DC: U.S. Department of Education.

37 Baum, S., Ma, J., & Payea, K. (2010). New York: The College Board; Bloom, D.E., Hartley, M., & Rosovsky, H. (2006). Beyond private

