INSTITUTE FOR HIGHER EDUCATION
LEADERSHIP & POLICY

AVERAGE WON'T DO:

Performance Trends in California Higher Education as a Foundation for Action

Colleen Moore
Connie Tan
Nancy Shulock

January 2014

California State University, Sacramento

CALIFORNIA STATE UNIVERSITY
SACRAMENTO
Institute for Higher Education Leadership & Policy

6000 J Street, Tahoe Hall 3063 | Sacramento, CA 95819-6081
T (916) 278-3888 | F (916) 278-3907 | *www.csus.edu/ihelp*

Executive Summary

The Case has Been Made – Now What?

California's public colleges and universities are benefitting from the passage of Proposition 30 in 2012, which provides for temporary tax increases through 2018 to help preserve education funding, and will likely benefit from increasing state revenues. While additional funding will allow the three public postsecondary systems (University of California, California State University, and California Community Colleges) to increase class offerings and expand programs and services, more than additional money is needed to meet the immense challenges facing California postsecondary education.

Repeated calls have been issued for California policymakers and educators to take action to enroll and graduate substantially more Californians to meet the needs for an educated citizenry and competitive workforce.[1] The latest two of these calls were in October and November, 2013. Both of these new reports stress the urgency of improving postsecondary attainment in California and the sad fact that California is lagging in innovation to address its educational challenges. Yet California postsecondary education continues to operate without effective state-level planning and coordination to heed those calls. Now we can add to that list the lack of data on which to base state-level planning and coordination. With the de-funding of the California Postsecondary Education Commission in 2011, there is no longer publicly available data on current patterns of student enrollment and progression from high schools to and across colleges and universities that would help families, educators, policymakers, and other interested stakeholders determine how best to improve postsecondary student success.

This report is part of a larger effort to begin to move into an action phase (see box on this page), now that the case for change is so well documented. Here we provide an update (the fifth in a series - see box on page iii) of California's trends in six performance categories that have become standard measures of a state's postsecondary performance. Over the ten years that the Institute for Higher Education Leadership & Policy (IHELP) has been tracking these measures, there has been improvement in only one area – the preparation of high school students for college – and California is still worse than most states in that category. Using this report as a baseline, we will develop a model public agenda for California postsecondary education, drawing on lessons from the many states that have developed goals, plans, and strategies to meet their needs. If the model public agenda is effective in engaging public stakeholders to reach consensus about how public postsecondary education can best meet the needs of Californians, the remaining missing pieces will be the leadership and the infrastructure to implement and sustain new initiatives. To that end, we will produce case studies of effective state-level policy leadership for postsecondary education in other states that are applicable to the kinds of state-level actions needed in California.

Category	Current Performance	10-year Trend
Preparation	Worse than most states	↑
Affordability	Average	↓
Participation	Better than most states	↔
Completion	Average	↔
Benefits	Better than most states	↔
Finance	Average	↔

A Three-part Project to Address Postsecondary Performance in California

Part I: Baseline performance data (this report)

Part II: A model public agenda for stakeholder discussion

Part III: Case studies of state-level leadership in public postsecondary education

Outline of Report

Intended as a resource for those interested in improving the numbers of Californians who earn postsecondary credentials of value from our public colleges and universities, this report includes:

- ✓ an assessment of California's overall performance in each of six categories, based on data gathered by the National Center for Higher Education Management Systems
- ✓ analyses of data from other sources that allow for a breakdown of performance by region[2] and race/ethnicity, in order to focus attention on the key variations that warrant policy attention
- ✓ a summary of trends in each performance area over approximately the past decade
- ✓ appendices to assist those with an interest in the details of the computations, including our methodology for determining California's relative performance among the states.

Key Findings by Category

- While still performing worse than most states on national measures, state data show improvement in the area of preparing K-12 students for higher education. While that improvement extends to the under-represented minority populations whose college preparation has lagged, substantial disparities persist.
- California rates about average among the states on affordability, but substantial increases in tuition that have accompanied budget cuts in recent years have made it increasingly challenging for California's students and families to pay for college.
- California's college participation rates are comparatively high, but the rate at which high school graduates go directly to college has declined in recent years related to substantial cuts in the budgets of state colleges and universities.
- California's performance on college completion is about average. The state has comparatively high graduation rates for full-time students, but performs poorly on the number of certificates and degrees awarded in relation to enrollment at community colleges.
- California experiences better than average public benefits from higher education, particularly in the form of a higher earnings premium for individuals with college degrees. However, while the share of the working-age population with a bachelor's degree is higher than in many states, California's relative position is declining as its rank falls with each successively younger age group in the working-age population.
- California's state and local appropriations per full-time equivalent student (FTES) for higher education are slightly above average, but the state ranks near the bottom in total revenue per FTES due to collecting less than half the national average in tuition/fee revenue.
- Across all categories for which data permit regional and racial/ethnic breakdowns, there are significant disparities that threaten future competitiveness. Black and Latino students continue to lag behind white and Asian students in levels of college preparation, participation, and completion, and the growing inland areas of the state generally lag the more urban coastal communities.

Conclusions

- California has much work to do to improve public postsecondary outcomes. Despite having institutions that are the envy of many, collectively our system of postsecondary education is only about average, with these aggregate ratings masking serious differences across regions of the state and across racial/ethnic populations. However well intentioned, calls to "fund," "restore," or "revise" the Master Plan are not helpful. The Master Plan is, first and foremost, about preserving institutions as those institutions attempt to fulfill their historically-defined missions. A "public agenda," by contrast, is about serving the needs of the public to gain the education and training needed to thrive in today's society and economy.

Executive Summary

- A public agenda stands a much better chance of addressing the critical issues facing us today, such as the implementation of the Common Core State Standards to improve college and career readiness and success; the need for a rational affordability policy addressing tuition and financial aid in a coherent manner across the state's regions and institutions; educating large populations of working-age adults who lack postsecondary credentials of value in today's economy; and addressing the unsustainable gaps across populations in education levels. All of these issues, and other pressing issues facing postsecondary education, span institutional missions and may require us to think outside the institutional structures defined by the Master Plan.
- The alarming decline in the availability of data, following the cessation of data collection efforts by the defunct California Postsecondary Education Commission, will leave the public without the data needed for informed state-level planning for public postsecondary education. Take a hard look at the data in this report because this is likely the last time that we will be able to provide a full accounting of these trends.
- With these and other data, the case has been indisputably made that letting present trends continue should not be an option. Yet California lacks the mechanisms for taking collective and decisive action to reverse the bad trends and accelerate the good ones. This report is the first phase of a three-part project intended to help spur action to improve performance. The next phases of this project are to (1) set forth a model public agenda for stakeholder consideration and (2) illustrate the kinds of state-level leadership being exercised in other states to try to improve postsecondary performance.

About this Report Series: This is the fifth in a series of reports IHELP has done analyzing the state of higher education in California. A set of reports titled *The Grades are In* (published in 2004, 2006, and 2008) followed the publication by the National Center for Public Policy and Higher Education of its bi-annual *Measuring Up* report grading the 50 states on the performance of their higher education systems.[3] *The Grades are In* reports explored California's grades in more depth and provided additional analyses of performance by region and by race/ethnicity. The National Center closed, but IHELP issued a report in 2010 titled *Consequences of Neglect* that used other available data to rate the performance of California higher education in a national context, and updated the prior analyses of variations across regions and groups within the state.[4] This report updates the analyses again, as the foundation for an upcoming report that will propose a framework for a public agenda for higher education in California, to be published early next year.

Methods: We examine California's performance in six categories: preparation, participation, affordability, completion, benefits, and finance. We use data from the National Center for Higher Education Management Systems' (NCHEMS) Information Center for Higher Education Policymaking and Analysis to calculate California's performance relative to other states. We did not perform similar computations for the other 49 states; therefore, we cannot cite top-performing states in each broad category or California's specific placement among states (in some cases, we note the state's rank for individual measures within a category). In addition to the state-level measures from NCHEMS, we use other sources of data to analyze performance by region and by race/ethnicity, and to assess trends over time. (See Appendices for more details about methodology.)

How is California Performing?
Preparation

Preparation: Worse than Most States

+ California ranks 10th in the number of AP scores at 3 or above per 1,000 juniors/seniors.

– California's high school graduation rate is 68%, ranking 37th among the states.

– California ranks no better than 39th in percent of 8th graders who score at or above the proficient level on the National Assessment of Educational Progress.

California performs worse than most states in terms of academic preparation for college. The state is faring better than most in the number of Advanced Placement (AP) test scores at 3 or above (the score needed to receive college credit), ranking 10th on that measure. But, while AP students are relatively well prepared, other indicators of preparation suggest significant problems with preparation levels among the majority of students. In particular, the percent of 8th graders scoring at or above the proficiency level on the National Assessment of Educational Progress (NAEP) standardized tests is low, such that 25% or fewer 8th graders scored at or above proficiency on each of the four subjects and the state ranks near the bottom on all sections of the NAEP. California's high school graduation rate is low compared to other states, with a third of 9th graders failing to complete high school in four years.

Key Findings: Regional Differences

- Proficiency in math and language arts among 8th graders, as measured by the California Standards Tests (CST), varies considerably across regions (Table 1).
  - The rate of proficiency in math among 8th graders ranges from 56% in Orange County to about 37% in the Monterey Bay region and the North San Joaquin Valley.
  - Over 60% of 8th graders are proficient in language arts in Orange County and Superior California, while 47% of 8th graders in the South San Joaquin Valley are proficient.
- Differences in the number of high scores on Advanced Placement (AP) and college entrance exams reflect variation in both the share of students taking the tests and the performance of the test-takers (Table 1). The number of SAT test-takers as a share of high school seniors was 40% or more in the San Francisco Bay area and Orange and Los Angeles Counties. In contrast, less than one-quarter of seniors in Superior California and the Inyo-Mono region took the SAT. Similarly, the number of students taking AP exams as a proportion of 11th and 12th grade enrollment was over one-third in the San Francisco Bay area, Orange County, and the San Diego/Imperial region, while it was only eight percent in the Inyo-Mono region.
- High schools in some regions are better able to provide students with a more rigorous set of courses to prepare them for college (Figure 1).
  - Enrollment in advanced science courses (defined as chemistry, physics and any AP science course) as a share of 11th and 12th grade students varies significantly across regions, ranging from 12% in the Inyo-Mono region and 19% in South San Joaquin Valley to about 60% in the San Francisco Bay area. Enrollment in advanced math courses (beyond Algebra II) is lower in most regions, ranging from 13% in the South San Joaquin Valley to about 36% in Orange County.
  - Less than one quarter of high school graduates in the Superior California, Upper Sacramento Valley and Inyo-Mono regions complete the college-preparatory curriculum required for entry to the state's public universities (known as the a-g courses), while 40% or more of graduates in Los Angeles and Orange Counties, the San Diego-Imperial region, and the San Francisco Bay complete that set of courses
- Twenty-three percent of California 11th graders participating in the California State University's (CSU) Early Assessment Program (EAP)[5] demonstrated readiness for college in English and another 15% were "conditionally" ready (Figure 2), while 14% demonstrated readiness for college-level math and another 46% were "conditionally" ready (Figure 3).[6]

How is California Performing?
Preparation

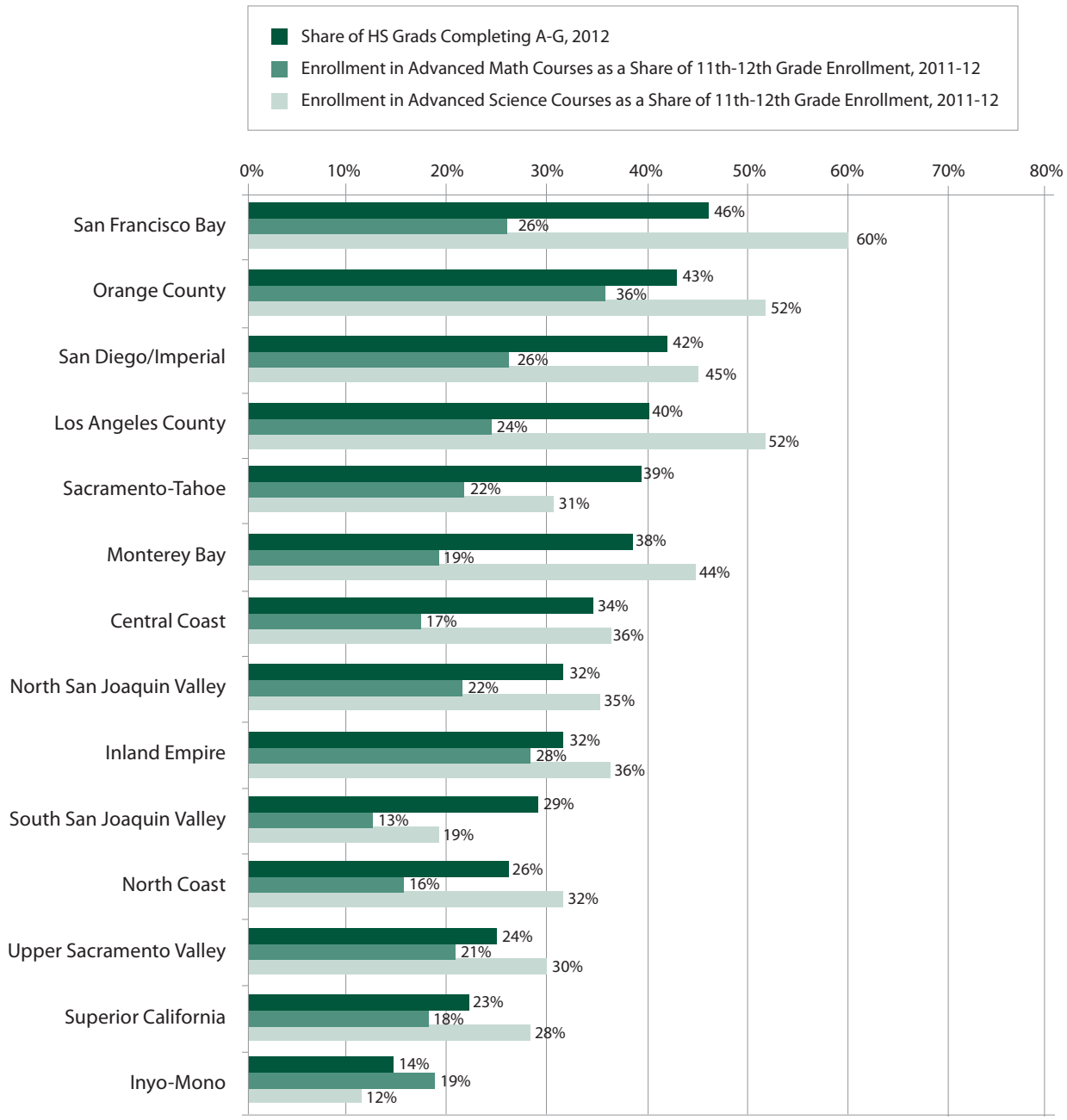
Readiness in English (including conditional) varied from 30% in the San Joaquin Valley to 48% in Orange County, and math readiness (including conditional) varied from 50% in the Monterey Bay region to 67% in Orange County. A larger share of California juniors participated in the English EAP (80%) than the math (44%). All juniors are eligible to take the English EAP exam while only those enrolled in a math class at the level of Intermediate Algebra or higher can take the math exam. The share of juniors taking the math exam varied substantially across regions, from 16% in the Inyo-Mono region to 52% in Orange County. Most regions had more than three-quarters of juniors taking the English exam, although it was only about one-third in the Inyo-Mono region and two-thirds in the North Coast region.

Table 1
K-12 Preparation Measures by Region

Region	Share of 8th Graders at or Above "Proficient" in Math, 2013	Share of 8th Graders at or Above "Proficient" in Language Arts, 2013	Number of AP Scores >=3 per 1,000 11th and 12th Graders, 2012	Number of Scores on SAT >=1500 and on ACT >=21 per 1,000 HS Seniors, 2012
Orange County	56%	66%	507	406
Superior California	51%	62%	149	213
Inyo-Mono	49%	51%	57	89
Central Coast	48%	58%	352	324
San Francisco Bay	47%	62%	463	436
San Diego/Imperial	45%	62%	402	318
Sacramento-Tahoe	43%	60%	246	300
Los Angeles County	42%	53%	313	258
Upper Sacramento Valley	41%	52%	133	181
North Coast	39%	51%	133	215
South San Joaquin Valley	38%	47%	134	138
Inland Empire	38%	55%	192	180
North San Joaquin Valley	37%	50%	155	177
Monterey Bay	37%	50%	229	224

Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 1
Enrollment in College Preparatory Courses by Region

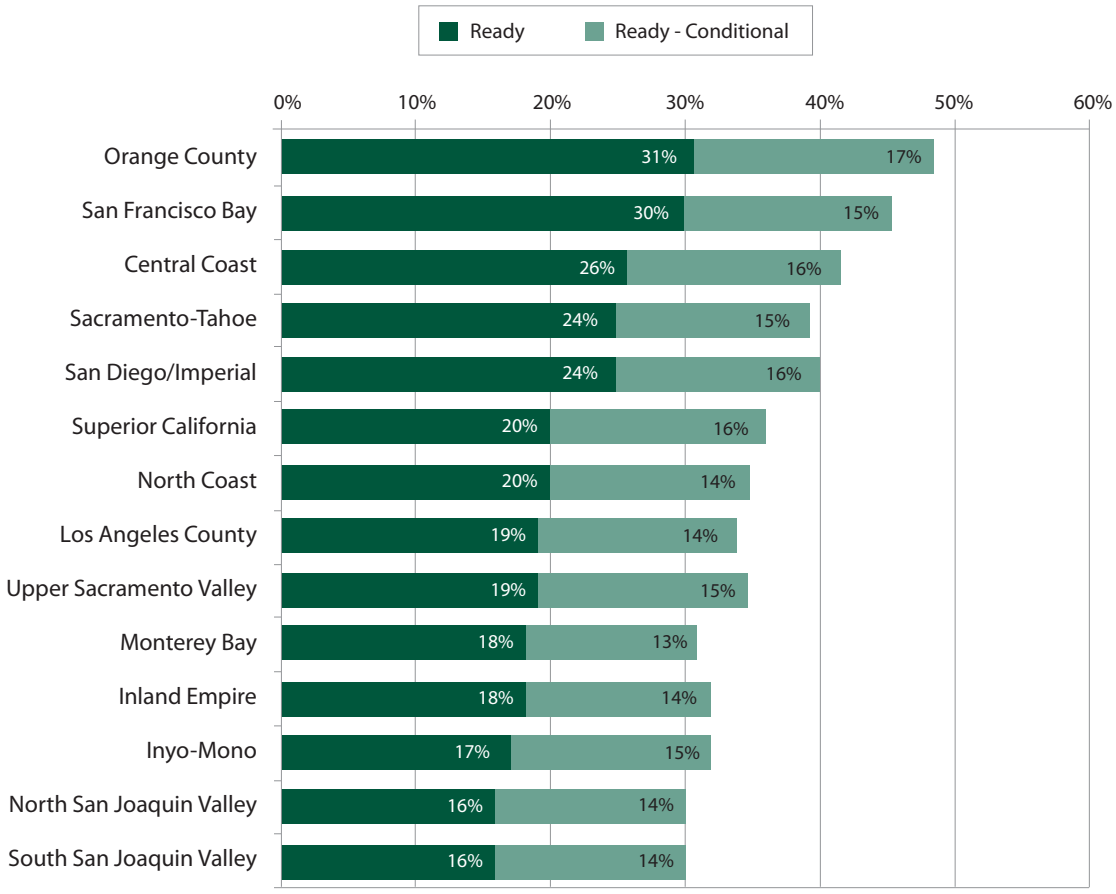


Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

How is California Performing?

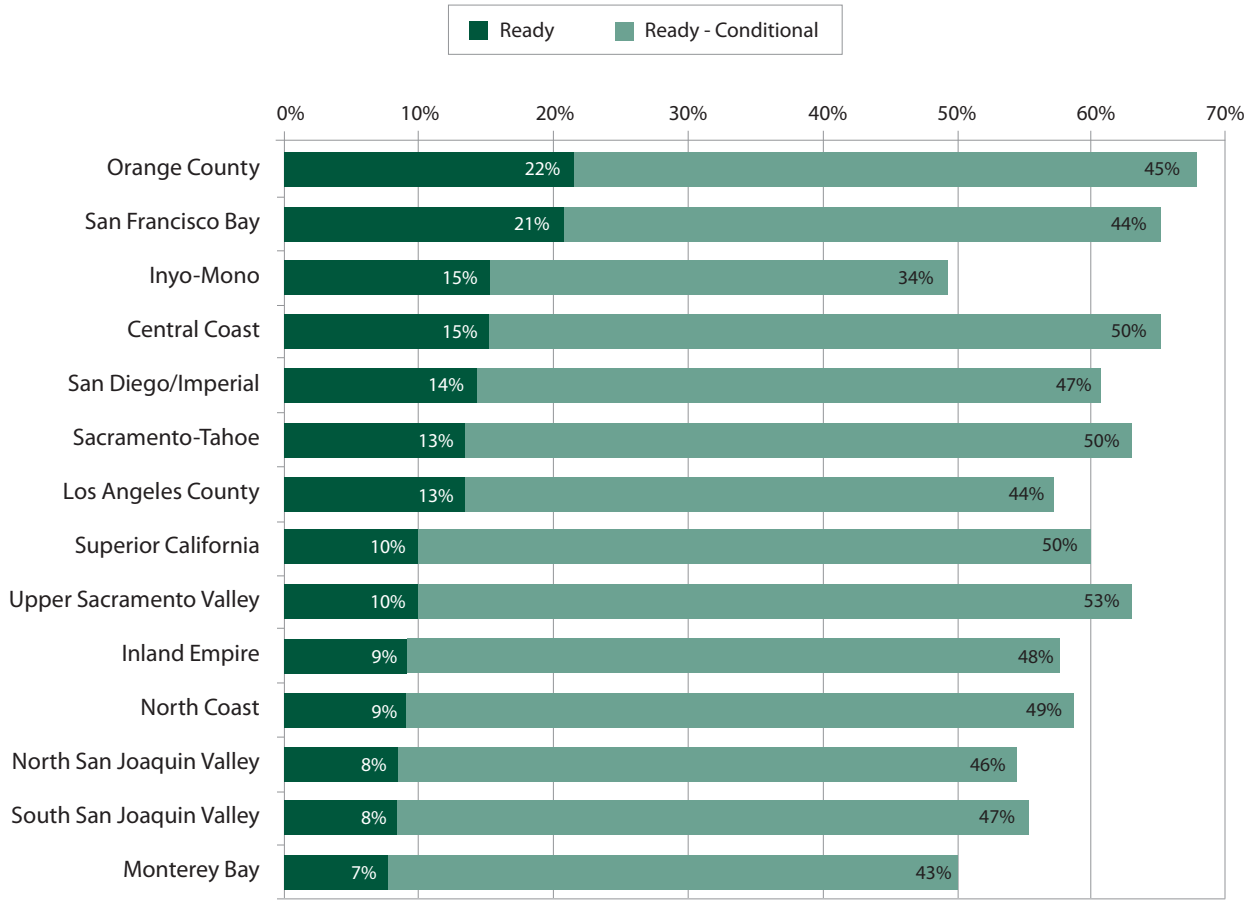
Preparation

Figure 2
Share of 11th Graders Demonstrating Readiness for College in English (Early Assessment Program, 2013)



Source: California State University, EAP 2013 Test Results (http://eap2013.ets.org/ViewReport.asp)

Figure 3
Share of 11th Graders Demonstrating Readiness for College in Math (Early Assessment Program, 2013)

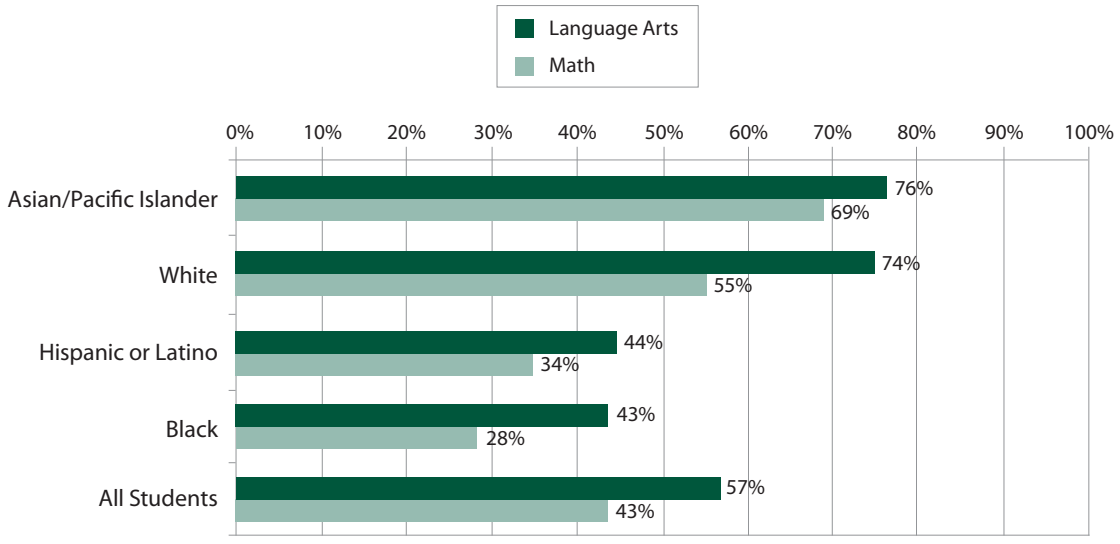


Source: California State University, EAP 2013 Test Results (http://eap2013.ets.org/ViewReport.asp)

Key Findings: Racial/Ethnic Differences

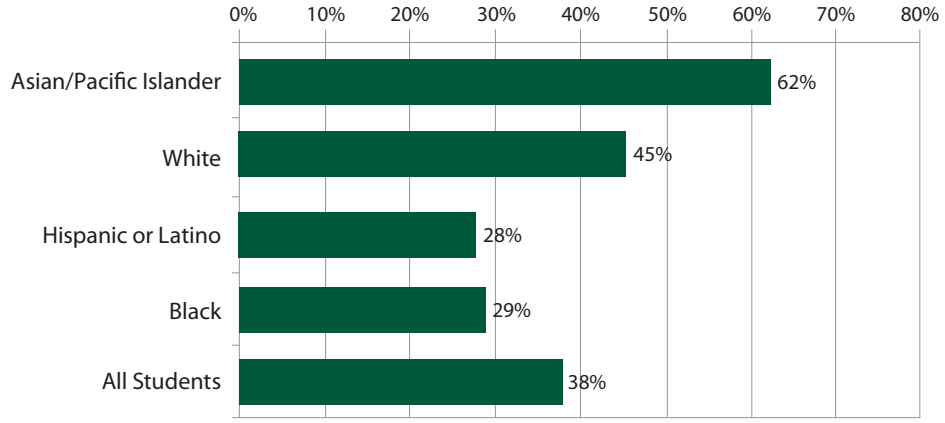
- Asian[7] and white 8th grade students are substantially more likely to be proficient in math and language arts than are black and Latino students (Figure 4).
- Black and Latino students are substantially less likely than white students to complete the series of courses required for admission to the state's public universities (Figure 5), and are less than half as likely to do so as Asian students.
- The number of passing scores on AP exams per 1,000 juniors and seniors varies substantially by race, at 199 for Asian students, 107 for white students, 68 for Latino students, and 31 for black students. The variation in this measure partly reflects the difference in the proportion of students in each racial group that enroll in AP courses and take the exams. Among 2012 high school graduates in California, 59% of Asian graduates had enrolled in an AP course during high school compared to 32% of white graduates, 28% of Latino graduates, and 20% of black graduates.[8]
- Asian and white students tend to score higher on standardized college entrance exams. In 2012, the average total SAT score was 1,636 for white students and 1,627 for Asian students, compared to scores of 1,339 for Latino students and 1,324 for black students.[9]
- Black and Latino students are less likely to participate in the Early Assessment Program, especially in math. Among 11th graders, only 27% of black students took the math EAP exam, far lower than the 70% of Asian students who took the test. The shares of Latino and white students taking the math EAP were 39% and 44%, respectively. Differences in the likelihood of taking the exam were related to differences in the share of students enrolled in the level of math course that qualifies them to participate. Disparities in taking the English exam are somewhat less stark, with 62% of black students, 81% of Latinos, 75% of white students, and 92% of Asian students participating.
- Among high school juniors who take the EAP exams, black and Latino students are substantially less likely to be found ready for college (Figure 6).

Figure 4
8th Grade Proficiency on the California Standards Tests, 2013



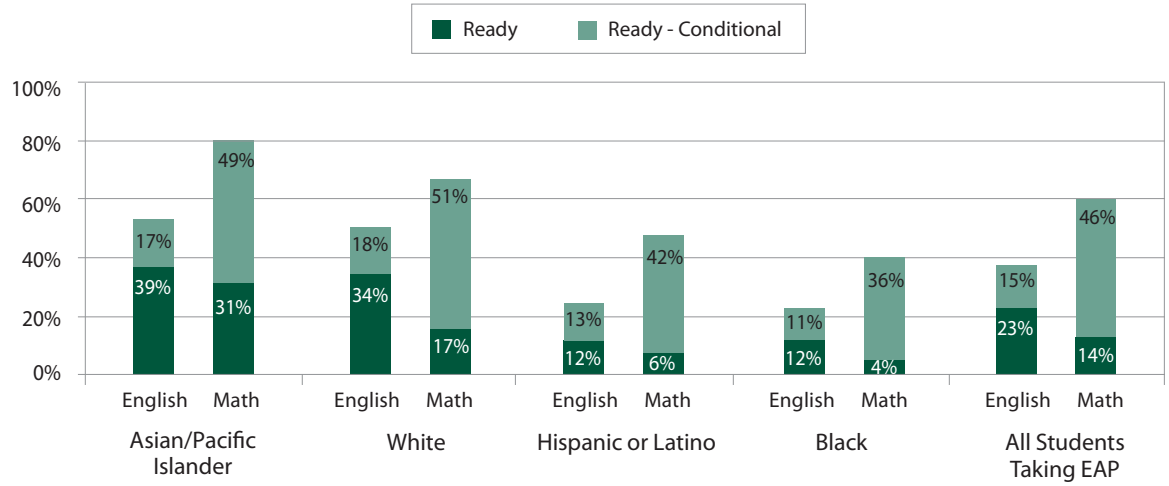
Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 5
Share of High School Graduates Completing A-G Curriculum, 2011-12



Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 6
College Readiness of 11th Graders as Indicated by the Early Assessment Program (EAP) Exam, 2013



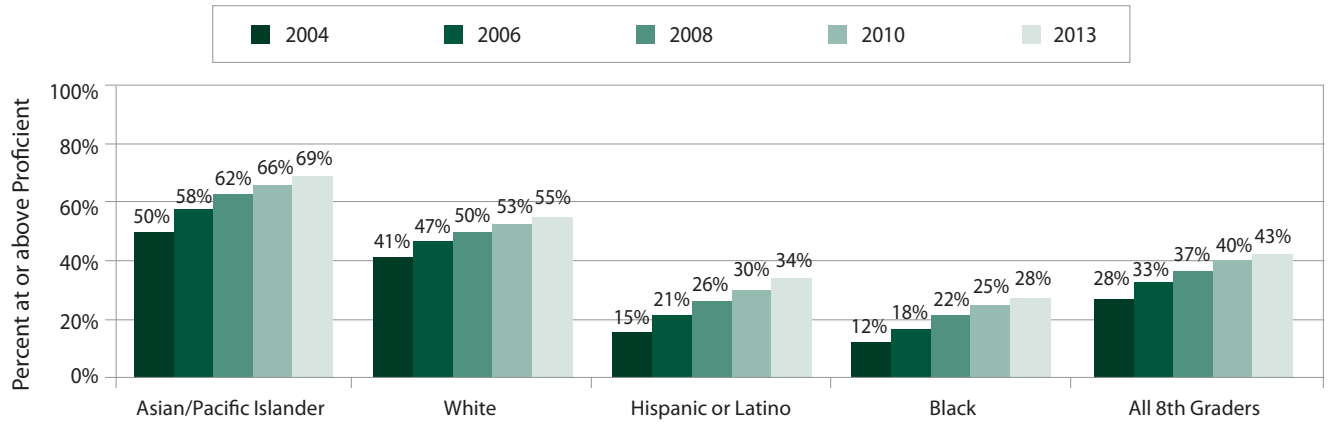
Source: California State University, EAP 2013 Test Results (http://eap2013.ets.org/ViewReport.asp)

How is California Performing?
Preparation

Performance Trends

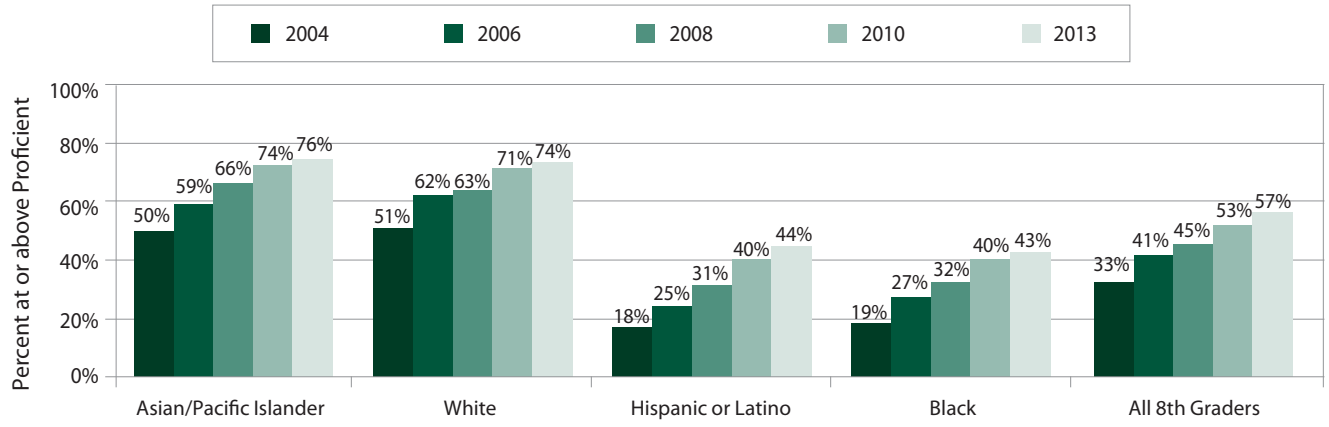
- The share of 8th graders scoring at or above the proficient level in math on the CST exam has increased from 28% in 2004 to 43% in 2013. Students of all racial/ethnic groups improved their performance (Figure 7), but substantial disparities remain between white and Asian students on the one hand and black and Latino students on the other.
- Math proficiency improved in all regions of the state, with increases of nearly 20 percentage points in the Superior California region, the South San Joaquin Valley, and Los Angeles County.
- The share of California 8th graders proficient in language arts increased by more than 20 percentage points, from 33% in 2004 to 57% in 2013 (Figure 8). The rate of proficiency more than doubled for black and Latino students, but a disparity with white and Asian students of about 30 percentage points remains. Language arts proficiency increased substantially in all regions of the state.
- Overall, scores on the CST exams for students in all grades declined slightly between 2012 and 2013, by an average of less than one percentage point, a result the state's Superintendent of Public Instruction has attributed to the impact of budget cuts and teacher layoffs in recent years.[10] The longer-term trend remains positive. The CST exams will no longer be given after 2013, as the state switches to new assessment tests as part of implementing the Common Core State Standards.
- The share of high school graduates completing the a-g curriculum has increased from 33% in 2004 to 38% in 2013 (Figure 9). There were increases across all racial/ethnic groups, but significant disparities remain, with only 28% of graduates completing the a-g curriculum in the fast-growing Latino population that now represents a majority (52.7%) of students in California's K-12 schools. The changes varied across regions, with Superior California and the Upper Sacramento Valley regions actually showing declines. The share of graduates completing a-g increased by between two and nine percentage points in most other regions.
- The share of high school juniors participating in the Early Assessment Program continues to increase. Between 2006 and 2013, the share of juniors taking the English exam rose from 67% to nearly 80% and the share taking the math exam increased from 29% to 44%.
    - The share meeting college readiness standards in English increased from 15% in 2006 to 23% in 2013 (Figure 10), with another 15% determined to be "conditionally ready." Readiness for English increased among all racial/ethnic groups and all regions.
    - The share determined to be ready for college math increased by a smaller amount, from about 12% to 15%, with the share "conditionally ready" increasing from 43% to 46% (Figure 11). Readiness for math increased among all racial/ethnic groups, although the increase for black students was primarily in the share deemed "conditionally ready."

Figure 7
Trends in Math Proficiency of 8th Graders on the California Standards Tests



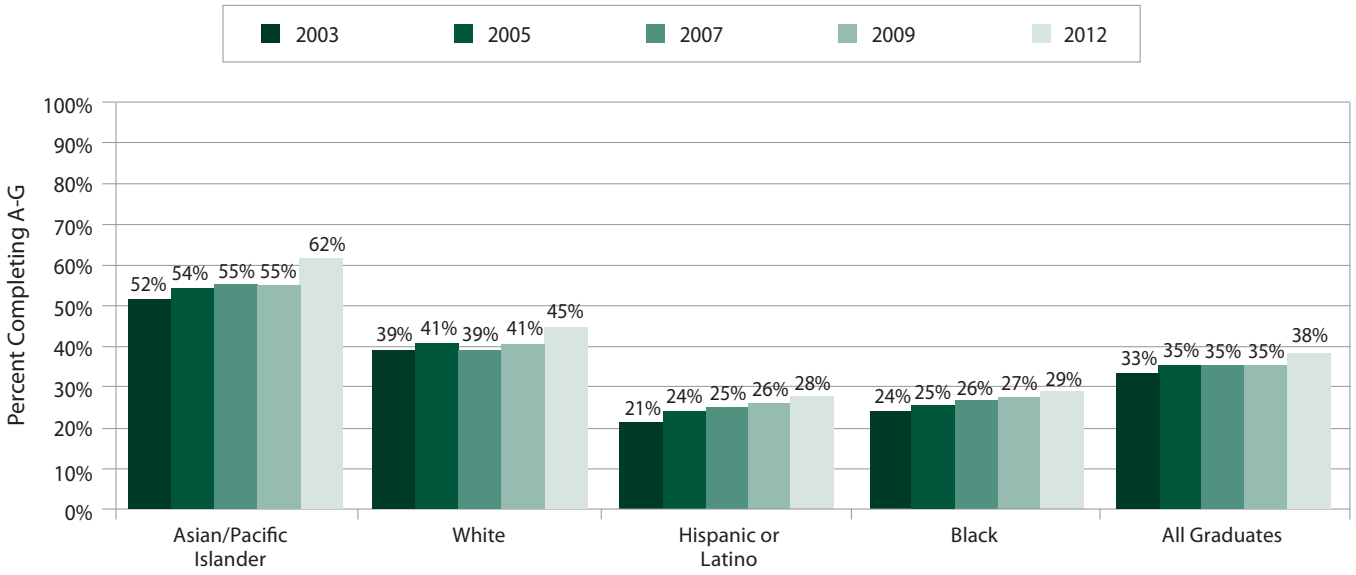
Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 8
Trends in Language Arts Proficiency of 8th Graders on the California Standards Tests



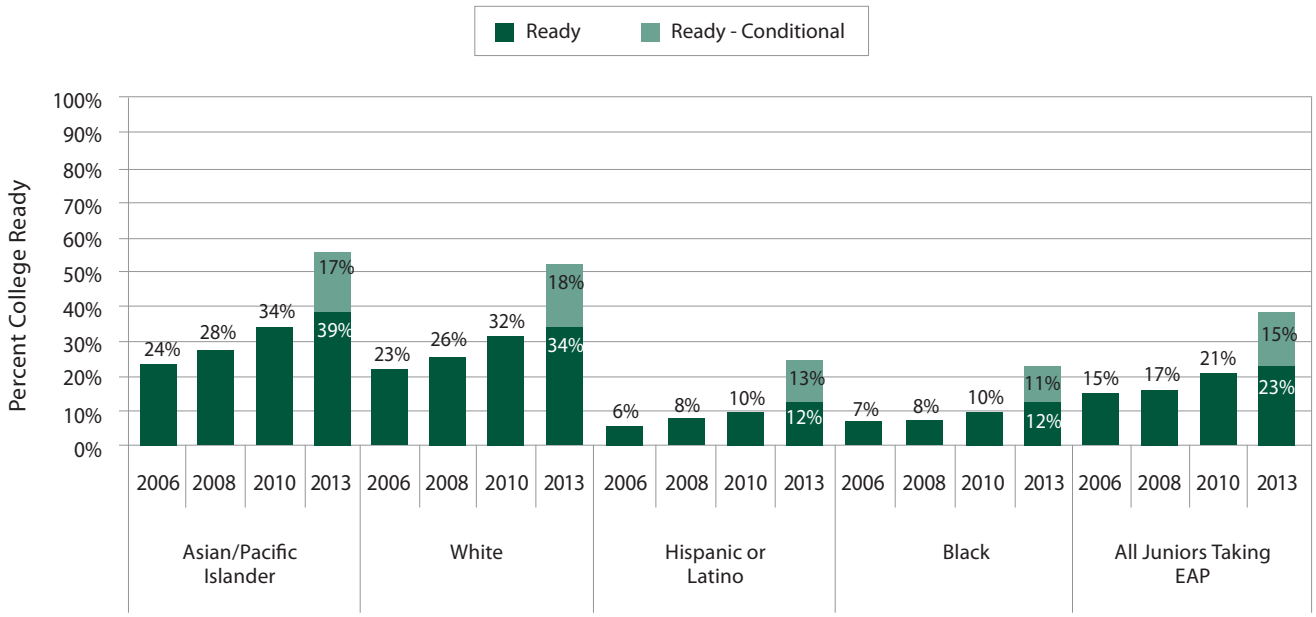
Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 9
Trend in High School Graduates Completing A-G Courses



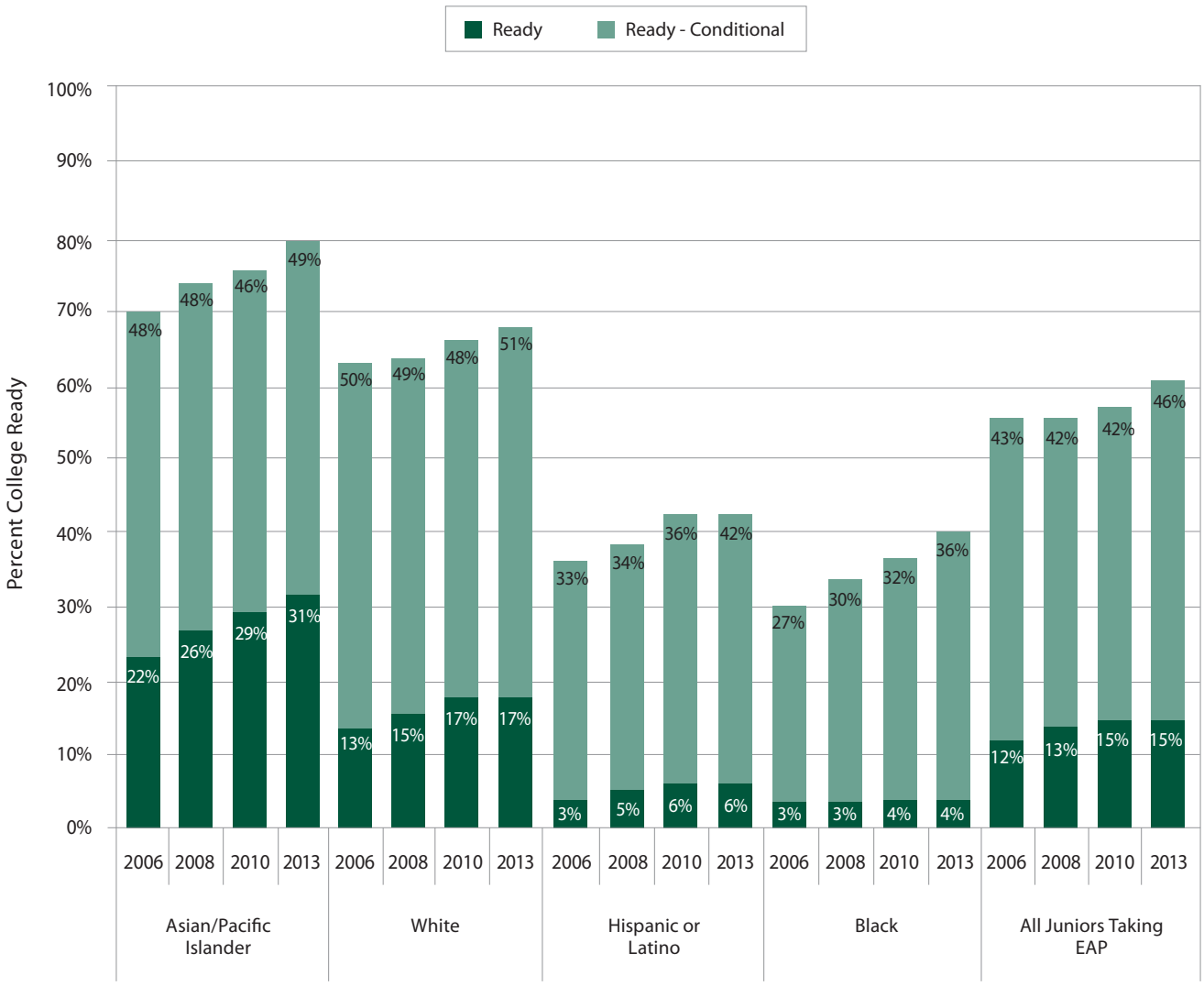
Source: California Department of Education, Dataquest (http://dq.cde.ca.gov/dataquest/)

Figure 10
Trend in Percent of Tested 11th Graders Meeting College Readiness Standards in English based on Early Assessment Program (EAP)



Source: California State University, EAP Test Results; note that "ready-conditional" status for English was not used in the earlier years

Figure 11
Trend in Percent of Tested 11th Graders Meeting College Readiness Standard in Math based on Early Assessment Program (EAP)



Source: California State University, EAP Test Results

How is California Performing?

Affordability

Affordability: Average

+ California ranks 14th on state grant aid targeted to low-income families as a share of Pell grant aid.

+ California has one of the lowest average loan amounts students borrow each year.

+/- The state ranked 17th on the percent of family income to pay for public 4-year college (including room and board).

– The state performs poorly compared to other states on the share of family income needed to pay for public two-year college, as the higher cost of room and board brings the total cost of attendance to equal a higher share of family income.

California's performance on affordability is average compared to other states. California performs fairly well in terms of state grant aid targeted to low-income families as a share of Pell grant aid. The state also performs well in terms of student loans, in that students borrow among the lowest amounts each year. However, the state's performance is worse on measures of affordability that include cost of room and board. The cost of attending a public two-year college is more expensive than in most states after taking living costs into account, while the cost of attending a public four-year college is average.

Some of the NCHEMS measures of affordability are from 2008 or 2009, and may not fully account for the impact of the severe recession on California's higher education budgets. Since 2008, tuition in California's public institutions has increased by a higher percentage than in all but one other state (Arizona),[11] so attending college in California may be less affordable relative to other states than the NCHEMS figures would suggest. Concerns about affordability have increased, with 65% of adults saying affordability is a big problem, up 13 points since 2008.[12]

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, while average household income and cost of living vary both by region and by race/ethnicity. Therefore, we focus only on the general trends in affordability.

Performance Trends

- While most states have increased tuition/fees substantially in recent years, California's increases have substantially exceeded the national average rate of increase (Table 2).

- The average total tuition and fees paid by resident undergraduate students at UC and CSU increased by approximately 150% since 2003-04. Tuition/fees increased from $5,530 to $13,200 at UC, and from $2,572 to $6,612 at CSU. The national average for tuition in public four-year institutions is $8,893 in 2013-14.

- The enrollment fee at the CCC increased from $11 per unit in 2001-02 to $18 per unit in 2003-04, and increased again to $26 per unit in 2004-05. The fee was reduced back to $20 per unit in 2006-07, then raised back to $26 per unit in 2009-10. It increased to $36 per unit in 2011-12 and to $46 per unit in 2012-13. As in UC and CSU, fees in the community colleges increased by about 150% over the past decade (for a full-time courseload of 30 units per semester), but they remain the lowest among community colleges across the nation, and are less than half the national average.

Table 2
Average Annual Tuition/Fees for Resident Undergraduate Students

	University			Community College		
Year	UC[1]	CSU[2]	National Avg for Public 4-yr	CCC[3]	National Avg for Public 2-yr	CCC Tuition as % of National Avg
2003-04	$5,530	$2,572	$4,645	$540	$1,909	28%
2004-05	$6,312	$2,916	$5,126	$780	$2,079	38%
2005-06	$6,802	$3,164	$5,492	$780	$2,182	36%
2006-07	$6,852	$3,199	$5,804	$600	$2,266	26%
2007-08	$7,517	$3,521	$6,191	$600	$2,294	26%
2008-09	$8,027	$3,849	$6,591	$600	$2,372	25%
2009-10	$9,311	$4,893	$7,050	$780	$2,558	30%
2010-11	$11,279	$5,285	$7,605	$780	$2,713	29%
2011-12	$13,181	$6,519	$8,244	$1,080	$2,963	36%
2012-13	$13,200	$6,612	$8,646	$1,380	$3,154	44%
2013-14	$13,200	$6,612	$8,893	$1,380	$3,264	42%
Total Increase	139%	157%	91%	156%	71%	–
Average Annual Increase	9.3%	10.2%	6.7%	11.8%	5.5%	–

1 Includes the systemwide tuition and the average campus-based fees
2 Includes the systemwide tuition for more than 6 units and the average campus-based fees
3 Represents the total fee for a full-time load of 30 units

Source: Data for UC, CSU, and CCC gathered from the California Postsecondary Education Commission, *Resident Undergraduate Fees in Actual Dollars* for 2001-02 through 2010-11, and from the Legislative Analyst's 2013-14 *Analysis of the Higher Education Budget* for more recent years. Figures for the national average were obtained from The College Board's annual *Trends in College Pricing* reports.

How is California Performing?
Participation

Participation: Better than Most States

+ California has high levels of participation among traditional-age college students compared to other states.

+ The state ranks 5th in the share of older students enrolled relative to the population of working adults without a bachelor's degree.

+/- The state ranks 25th in the number of first-time postsecondary students as a percentage of 9th graders enrolled four years earlier.

California's participation rates are better than most states. The state ranks 6th in the share of 18-24 year olds enrolled in college. The state also ranks high in the share of adult working-age students enrolled in college. However, California is ranked in the middle of the states in the number of first-time postsecondary students as a share of 9th graders enrolled four years earlier.

Key Findings: Regional Differences

- The share of 18- to 24-year olds enrolled in higher education varies substantially across regions (Table 3), ranging from 25% in the rural Inyo-Mono region to over 50% in Orange County and the San Francisco Bay, Monterey Bay, Upper Sacramento Valley, and Central Coast regions.
- The share of adults age 25 and over enrolled in college ranges from about three to six percent across the regions. Within the regions, the participation rates for this age group tend to be lower in counties where residents lack easy access to a community college, with rates of less than three percent in Amador, Madera, Mariposa, and Mono Counties.
- The participation rates in Table 3 are affected by the location of universities, especially for the Upper Sacramento Valley region. For the young adult population, the participation rate among counties other than Butte County is only 16% to 29%, but the location of CSU Chico and its 16,000 students in Butte County raises the overall rate for the region to 52%.
- The college-going rate directly from high school varies from a low of 41% in the Monterey Bay region to a high of 69% in the Central Coast region (Figure 12). A 9th grader in the Superior California region has a 30% chance of enrolling in college within four years, while the chance is 59% for 9th graders in the Central Coast region.

Key Findings: Racial/Ethnic Differences

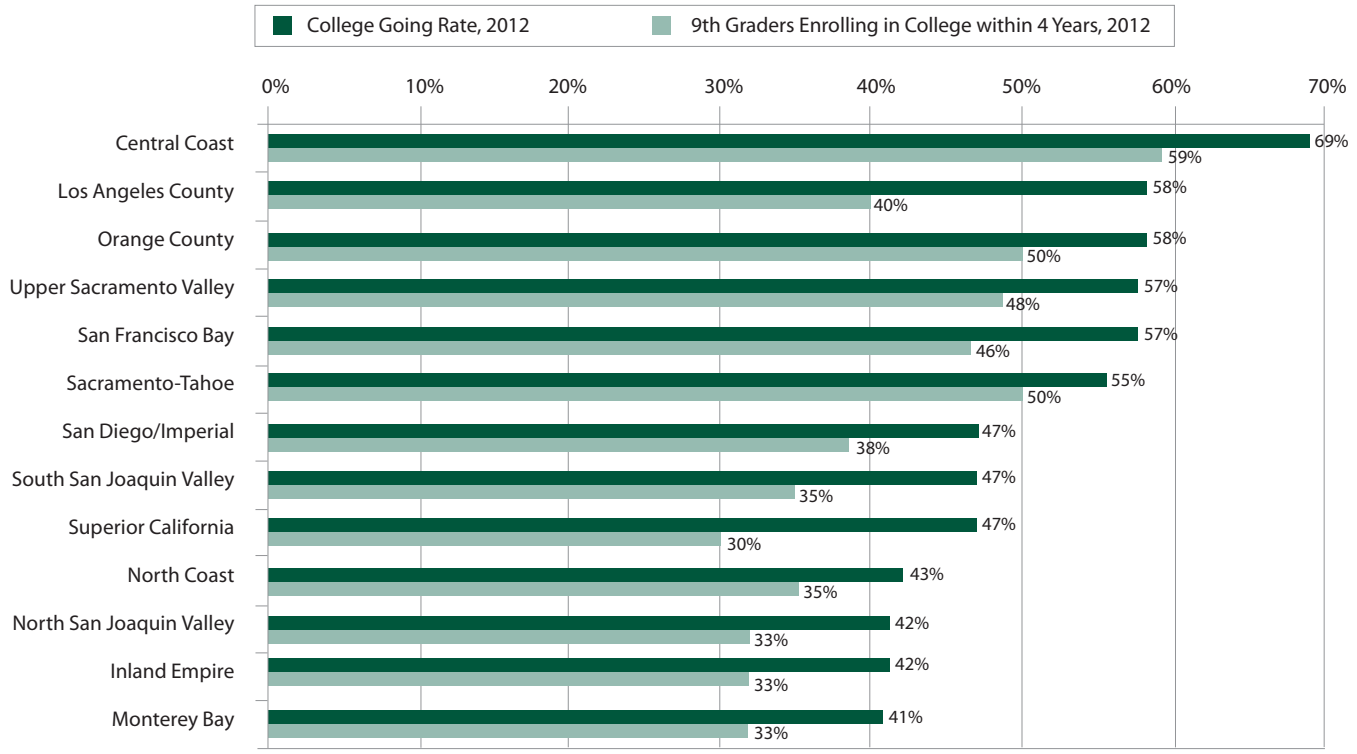
- A substantially higher share of Asian high school graduates go directly to college compared to all other racial/ethnic groups (Figure 13).
- The direct college-going rates of black and Latino high school graduates are comparable to those of white

Table 3
College Participation Rates by Region

Region	Percent of 18-24 Year-Olds Enrolled in College	Percent of Adults Ages 25+ Enrolled in College
Central Coast	54.1%	4.8%
Orange County	52.8%	5.4%
Upper Sacramento Valley	52.7%	4.9%
Monterey Bay	51.6%	5.2%
San Francisco Bay	50.7%	5.6%
Sacramento-Tahoe	49.6%	6.1%
Los Angeles County	47.5%	5.5%
San Diego/Imperial	45.0%	6.1%
North Coast	44.3%	4.5%
North San Joaquin Valley	39.1%	4.7%
Inland Empire	38.1%	5.7%
Superior California	35.9%	4.1%
South San Joaquin Valley	36.3%	4.6%
Inyo-Mono	24.6%	2.5%

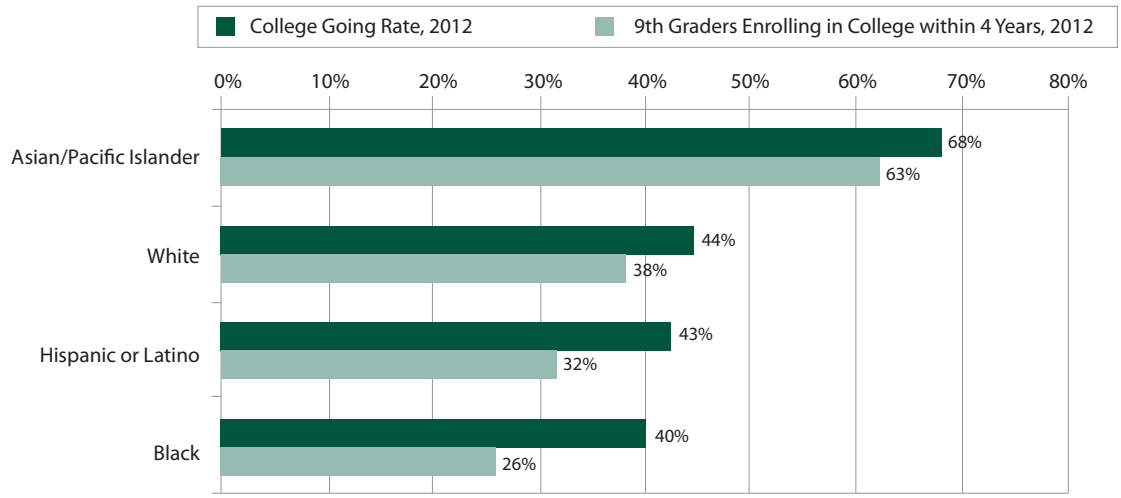
Source: US Census Bureau, American Community Survey 2012, Table B14004, for most counties. Data for 18 smaller counties were not shown in the 2012 ACS tables, so we used the ACS 2007-2011 5-year estimates for those counties.

Figure 12
Direct College-Going Rates by Region



Source: Author calculations based on data obtained from the California Department of Education, the CCC Chancellor's Office, the UC Office of the President, and the Institute for Social Research at CSU Sacramento using data obtained from the CSU Chancellor's Office

Figure 13
Direct College-Going Rates by Race/Ethnicity



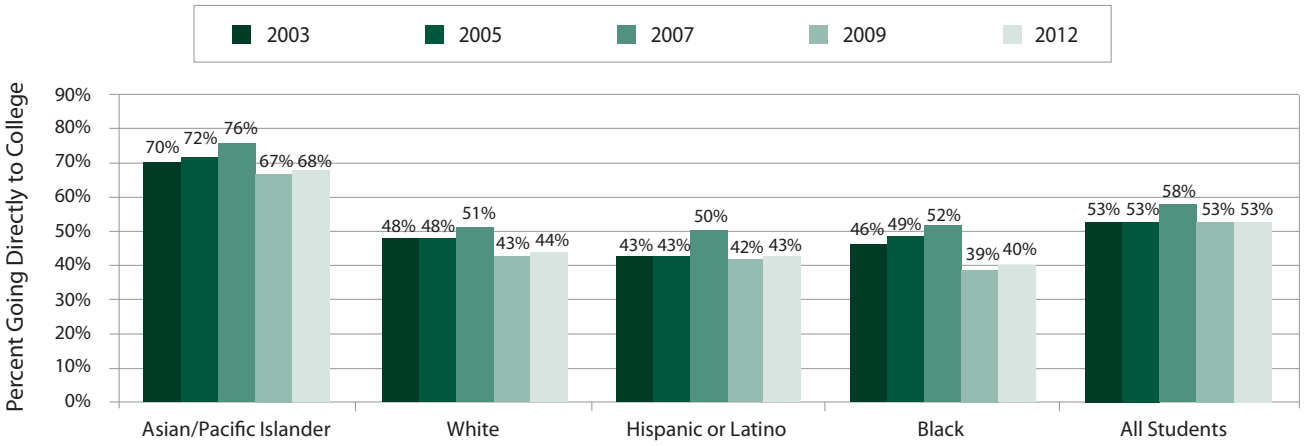
Source: Author calculations based on data obtained from the California Department of Education, the CCC Chancellor's Office, the UC Office of the President, and the Institute for Social Research at CSU Sacramento using data obtained from the CSU Chancellor's Office

graduates. However, a lower percentage of black and Latino 9th graders enroll in college within four years, reflecting their lower rates of graduating from high school.

Performance Trends

- The college-going rate of high school graduates increased between 2003 and 2007, but declined in 2009 (Figure 14) a pattern seen among all racial/ethnic groups, and remained lower in 2012.
- College-going rates in 2003 reflected a context of recession-related budget cuts to public colleges and universities accompanied by substantial increases in student fees, both of which likely depressed participation rates, so the gains between 2003 and 2007 were mostly just restoring rates to earlier levels. The drop in 2009 occurred during a similar period of recession-related budget cuts and tuition/fee increases. According to archived data from the California Postsecondary Education Commission, the 2009 college-going rate was lower than at any time in the last 25 years.[13] Cuts to college budgets in recent years have been larger than in past recessions,[14] resulting in the decline in the share of high school graduates enrolling in college.[15]
- The change in college-going rates varied across regions. The rate increased between 2003 and 2012 in several of the more rural regions where college-going was lower, but those gains were more than offset by flat or declining college-going rates in the more populated areas of the state.

Figure 14
Trend in Direct College-Going Rate



Source: Author calculations based on data from the California Department of Education, the California Postsecondary Education Commission, the CCC Chancellor's Office, the UC Office of the President, and the Institute for Social Research at CSU Sacramento using data obtained from the CSU Chancellor's Office

How is California Performing?
Completion

Completion: Average

+ California has the highest rate of first-time college freshmen returning their second year among all the states.

+ The graduation rate for full-time, first-time students in two- and four-year colleges is better than most states.

+/- California ranks 26th in the transition rate and completion rate from 9th grade to college.

– The number of credentials and degrees produced per 100 undergraduates at public two-year colleges is among the lowest of the states.

California's overall performance on college completion is average in the context of other states. The state performs well in terms of graduation rates among first-time, full-time students in two- and four-year colleges, and is ranked 1st in the share of first-time college freshmen that returns for a second year. California ranks 5th in the number of degrees awarded per 100 undergraduates at public four-year colleges. However, the state performs poorly on the number of credentials and degrees produced relative to enrollments in public two-year colleges, likely related, in part, to very high part-time enrollment in that sector, which is associated with much lower completion rates than among full-time students. California also ranks below most states on the number of credentials and degrees produced relative to the number of residents without a college degree.

Key Findings: Regional Differences

- The number of baccalaureate degrees awarded as a share of enrollment in UC and CSU is highest for students from the Upper Sacramento Valley (26.0) and lowest for students from the Inyo-Mono region (16.3) (Figure 15).
- Variation by region in awarding certificates and degrees may be affected by several factors other than the performance of the colleges. The degree of emphasis on the transfer mission relative to career education could affect award rates, since students who transfer have generally done so without earning an associate degree.[16] Also, local job markets vary, with some having more demand for shorter-term certificates than others, which may affect award rates. As one example, the exceptionally high award rate for community colleges in the Upper Sacramento Valley region reflects the award of many short-term certificates (less than one year) in agricultural production and protective services.

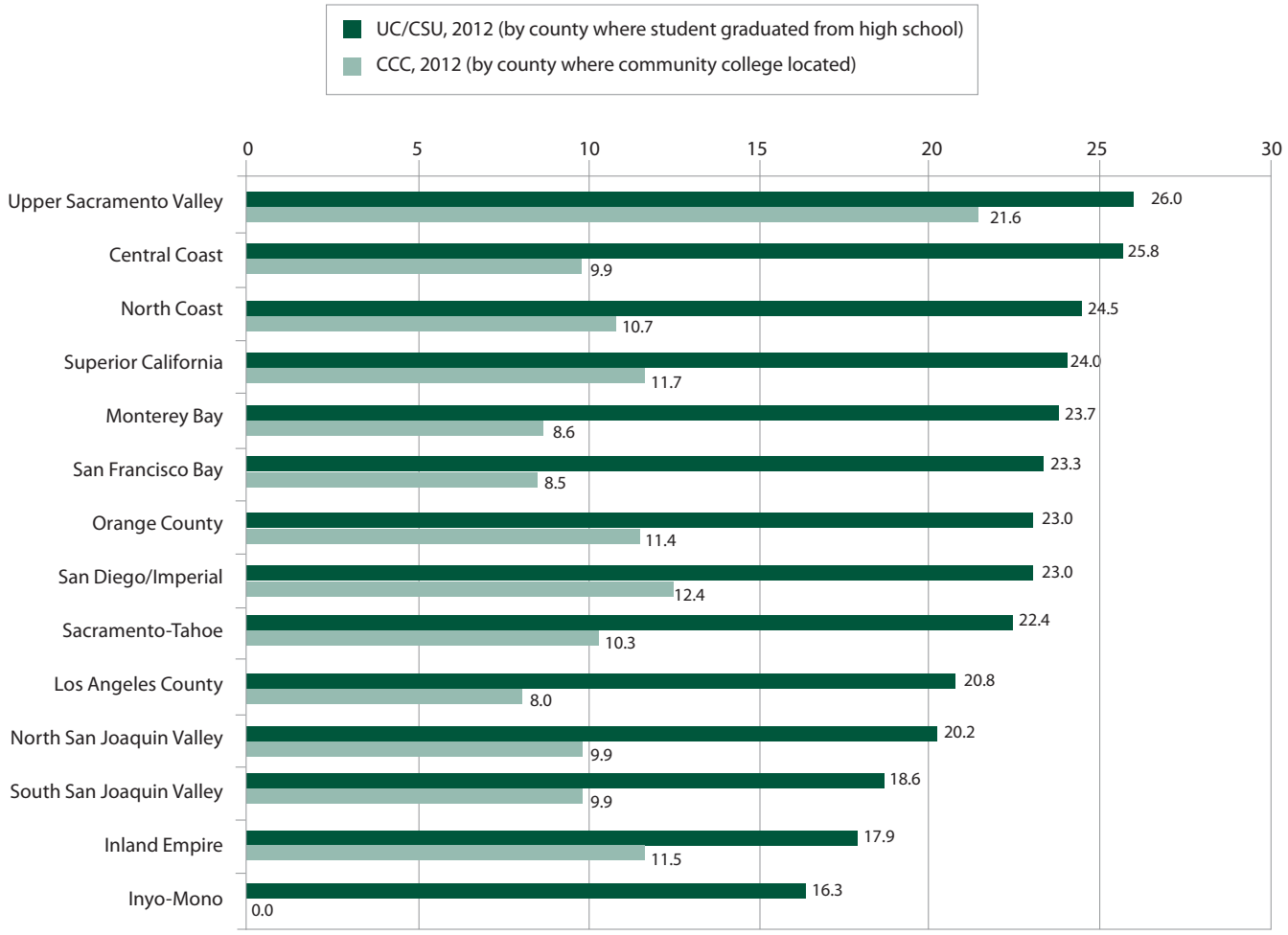
Key Findings: Racial/Ethnic Differences

- The number of bachelor's degrees awarded per 100 undergraduates enrolled in UC and CSU is highest for white students (26.5) and lowest for Latino students (16.7) (Figure 16).
- The number of certificates and degrees awarded by community colleges per 100 students enrolled is also highest for white students (10.9).

Performance Trends

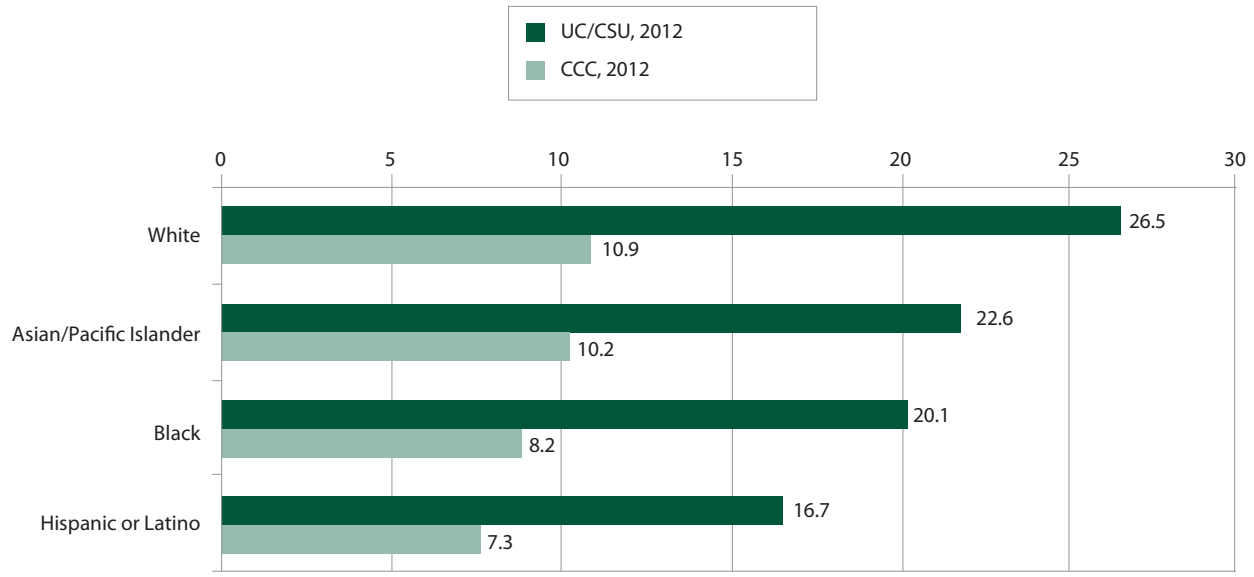
- The number of certificates and degrees awarded per 100 students enrolled in the community colleges remained relatively stable between 2003 and 2012 (Figure 17). It increased by a small amount for white, Asian and Latino students, but not for black students.
- The number of bachelor's degrees awarded per 100 undergraduates enrolled in UC/CSU has remained fairly stable overall. It has increased for white, Asian and black students but decreased some for Latino students, and significant racial/ethnic gaps persist.
- Degrees awarded per 100 undergraduates enrolled have fluctuated in most regions, with no regions having a consistent increase or decrease between 2003 and 2012 across the community college and university systems.

Figure 15
Certificates and Degrees Awarded per 100 Undergraduates Enrolled by Region



Source: Author calculations based on data provided by the UC Office of the President and the Institute for Social Research at CSU Sacramento (using data obtained from the CSU Chancellor's Office), and from data gatherered from the CCC Chancellor's Office online Datamart. There are no community colleges located in the Inyo-Mono region.

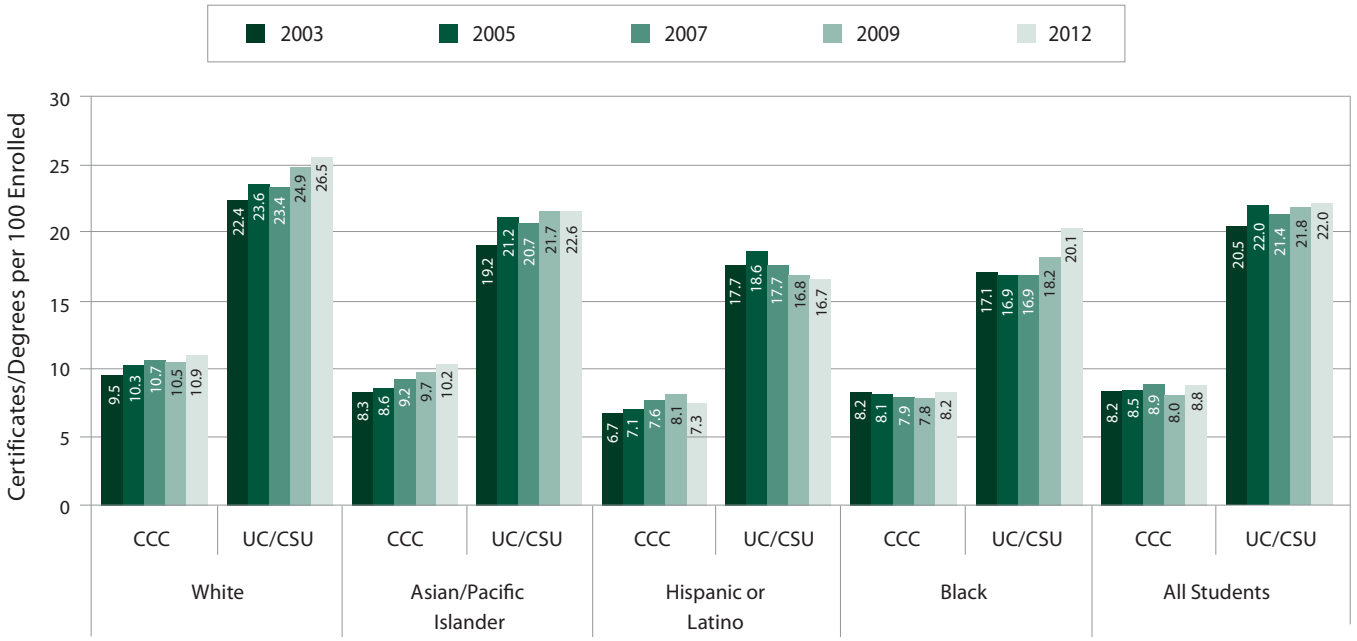
Figure 16
Certificates and Degrees Awarded per 100 Undergraduates Enrolled by Race/Ethnicity



Source: Author calculations based on data provided by the CCC Chancellor's Office, the UC Office of the President, and the Institute for Social Research at CSU Sacramento (using data obtained from the CSU Chancellor's Office)

How is California Performing?
Completion

Figure 17
Trends in Number of Certificates and Degrees Awarded per 100 Undergraduates Enrolled



Source: Author calculations based on data obtained from the California Postsecondary Education Commission, the California Department of Education, the CCC Chancellor's Office, the UC Office of the President, and the Institute for Social Research at CSU Sacramento using data obtained from the CSU Chancellor's Office

How is California Performing?

Benefits

Benefits: Better than Most States

- \+ California ranks highest in the size of the wage premium that associate and bachelor's degree holders earn over high school graduates.
- \+ The state has the twelfth highest per capita personal income.
- \+ The state ranks higher than most states in the percent of the population age 35-44 and 45-64 with a bachelor's degree.
- +/- California is ranked 25th in the percent of the population age 25-34 with a bachelor's degree.

Higher education levels are associated with broad economic and social benefits including higher individual earnings, higher tax receipts, lower reliance on public assistance and other social programs, lower health care costs, and higher rates of civic participation.[17] Overall, California has better benefits related to higher education than most states. The state ranks first in the earnings advantages of having an associate or bachelor's degree compared to a high school diploma. California's per capita personal income is also higher than in most states. The percent of older adults with a bachelor's degree is higher than in many states, but California is average on this measure for the younger cohort; the state ranks 16th in the percentage of the population age 45-64 with a bachelor's degree but slips to 18th among 35-44 year olds and to 25th among 25-34 year olds.

Key Findings: Regional Differences

- Educational attainment levels vary substantially across the state. Forty-five percent of working-age adults (ages 25-64) in the San Francisco Bay area have at least a bachelor's degree, three times the share of adults with that level of education in the South San Joaquin Valley (Figure 18).
- The coastal and urban areas of the state have higher educational attainment levels than the more rural and central regions. This is likely related to several factors including easier access to the numerous colleges and universities located in urban areas and the labor force needs of high-skill employers located in those regions.
- Per capita income closely tracks educational attainment levels. Regions with more college-educated individuals have higher income levels.

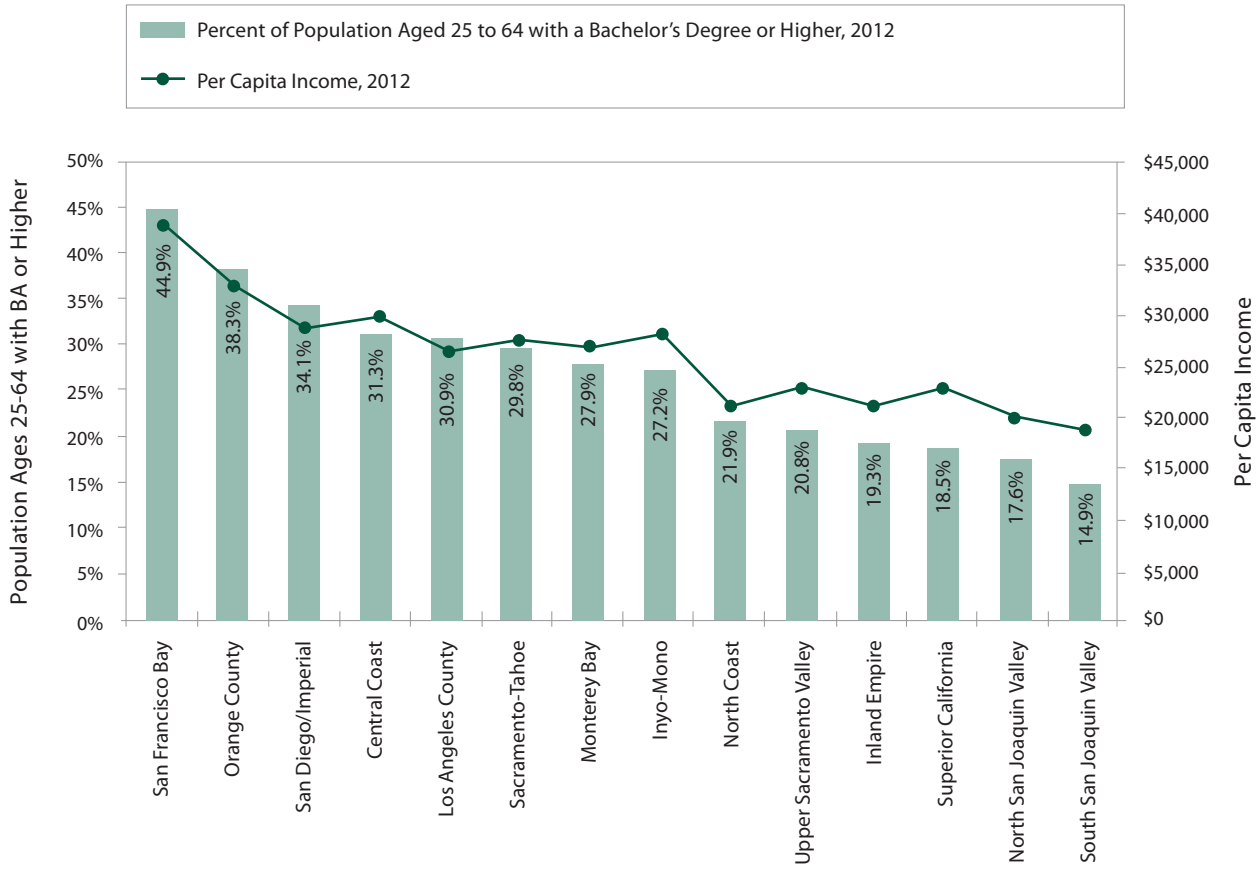
Key Findings: Racial/Ethnic Differences

- Among California adults ages 25 and over, 48% of Asians and 40% of whites have at least a bachelor's degree. The figures for black and Latino adults are 22% and 11%, respectively (Figure 19).[18]
- Differences in education levels are highly correlated with differences in per capita income across racial/ethnic populations.[19] Black and Latino per capita income is far below that of whites and Asians.

Performance Trends ⟺

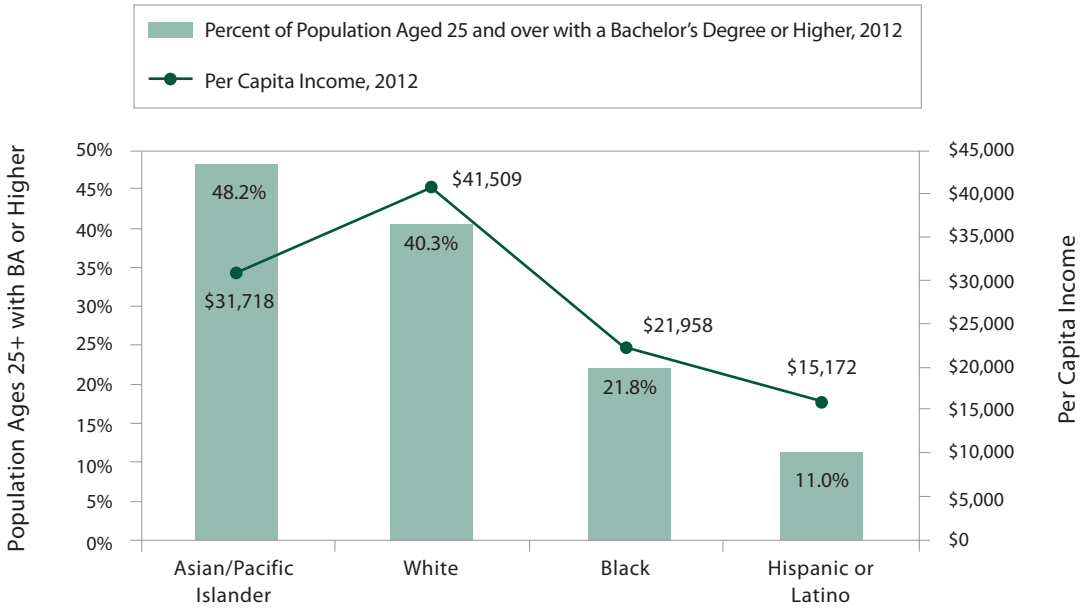
- The share of the working-age population (ages 25-64) with a bachelor's degree or higher has increased slightly (Figure 20). While attainment has increased for all racial/ethnic groups, the substantial disparities across groups remain.
- Educational attainment levels have increased slightly in all regions except the Monterey Bay and Sacramento-Tahoe regions (where it was flat or slightly decreased), leaving the significant disparities across regions unchanged.

Figure 18
Educational Attainment and Per Capita Income by Region,



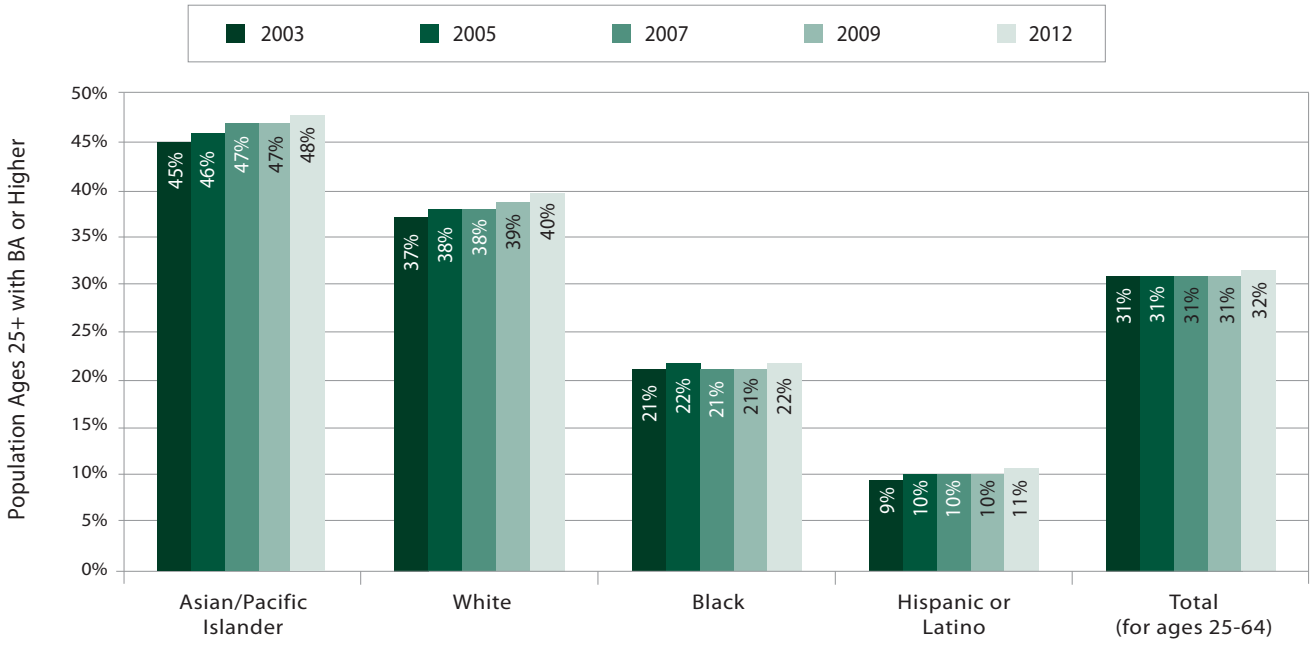
Source: US Census Bureau, American Community Survey 2012, Table C15001 (for educational attainment) and Tables B19313 and B01001 (for per capita income). Data for 18 smaller counties were not shown in the 2012 ACS tables, so we used the ACS 2007-2011 5-year estimates for those counties.

Figure 19
Educational Attainment and Per Capita Income by Race/Ethnicity



Source: US Census Bureau, American Community Survey 2012, Tables B15002 (educational attainment) and Tables B19313 and B01001 (per capita income)

Figure 20
Trends in Educational Attainment



Source: US Census Bureau, American Community Survey

How is California Performing?
Higher Education Finance

Finance: Average

+ California ranks higher than most states in the dollar amount of state and local support per full-time equivalent student, per capita, and per $1,000 of personal income.

+/- The state ranks 24th on higher education priority, defined as state appropriations relative to state and local revenues.

– California ranks 47th in total revenues per full-time equivalent student.

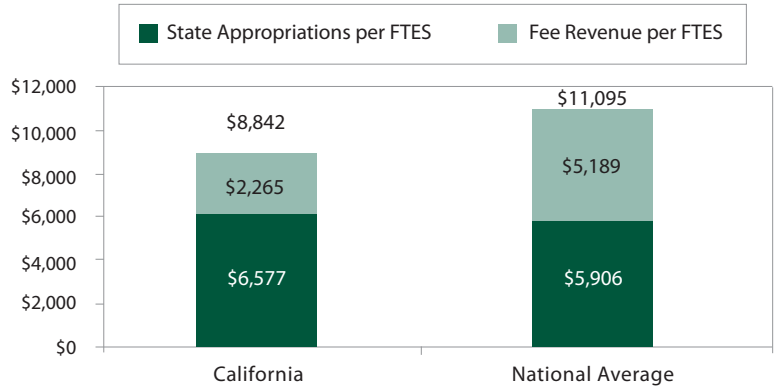
California's funding for higher education is average compared to other states. California does better than many other states in the amount of state and local tax revenues appropriated per full-time equivalent student (FTES). However, the state is ranked near the bottom in total revenues (including appropriations and tuition) that colleges receive per FTES, related to having the lowest tuition in the nation in its community colleges. 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. In terms of the emphasis the state places on higher education, California ranks 19th on the share of personal income spent on higher education—for every $1,000 of personal income in the state, the state spends $7 on higher education.

Data from the State Higher Education Executive Officers indicate that state and local appropriations for higher education in California amounted to $6,577 per FTES in 2012, somewhat above the national average of $5,906 (Figure 21). Despite significant tuition increases in recent years, California collects considerably lower amounts of tuition revenue per student. Total revenues generated from tuition and fees per FTES in California were $2,265 in 2012, less than half the national average of $5,189.

Performance Trends

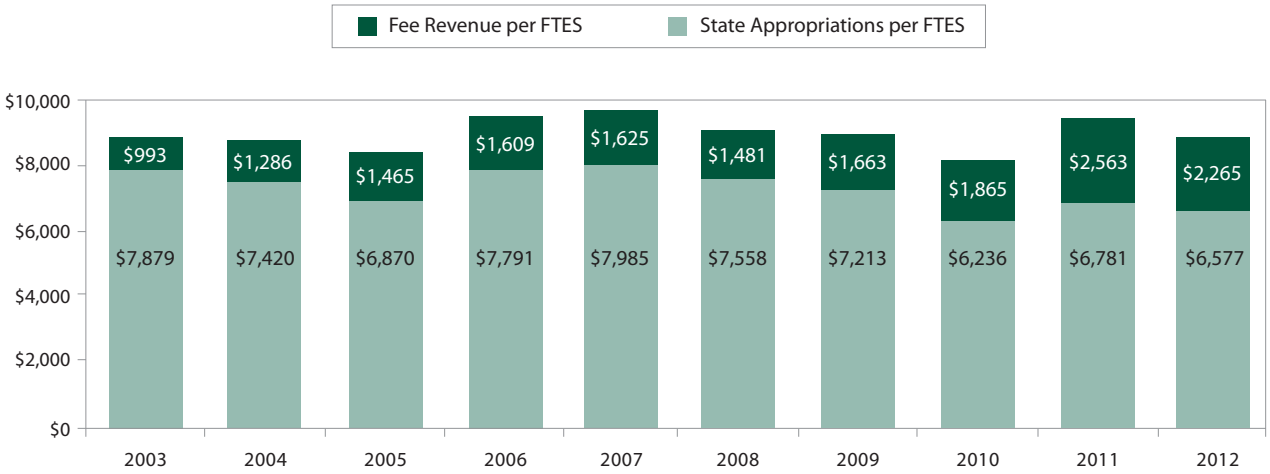
- After adjusting for inflation, total funding per FTES for higher education was about the same in 2012 as it was in 2003, at about $8,800 (Figure 22).
- The difference is in the share of funds coming from students and families through tuition and fees. In 2003, 11% of total funding, or somewhat less than $1,000 of the $8,800 in total funding, came from students and their families while $7,800 was covered by appropriations. By 2012, the students' share of total funding had increased to 26%, with students paying more than $2,200 and appropriations covering about $6,600.
- After adjusting for inflation, state and local appropriations for higher education peaked at about $8,000 in 2007, and have declined by approximately $1,400 per FTES since then.

Figure 21
Funding for Higher Education, 2012



Source: State Higher Education Executive Officers, *State Higher Education Finance FY 2012*

Figure 22
Trend in Higher Education Funding per FTES (in 2012 dollars)



Source: State Higher Education Executive Officers, *State Higher Education Finance* reports for 2005 - 2012. Figures for 2003 and 2004 were obtained from the NCHEMS Information Center for State Higher Education Policymaking and Analysis (based on data from SHEEO). Figures adjusted for inflation using the California CPI-U index as reported by the California Department of Finance.

Summary and Conclusions

Public Agenda more Helpful than Revised Master Plan

The data make it clear that California has work to do to improve public postsecondary outcomes. Despite having institutions that are the envy of many, collectively our system of postsecondary education is only about average with these aggregate ratings masking serious differences across regions of the state and across racial/ethnic populations. Many other states have begun to identify the needs of their populations that are not being met by existing institutions and policies and to implement new ways to better serve the public. By contrast, California seems wedded to an outmoded approach that is centered on funding and preserving institutions rather than starting with public needs and developing the means to fulfill them. The November, 2013 report by the Committee on Economic Development explains the problem well:

> "In contrast to previous approaches (the 1960 California Master Plan for Higher Education) that emphasized the independent activities of institutions and sectors (e.g. community colleges, California State University, or the University of California), the new challenges require full utilization of California's collective capacities for postsecondary education. This can be achieved only by integrated and collaborative approaches to development, delivery, evaluation and credentialing of higher education across the public institutions and systems and between public, private, non-profit and for-profit sectors."[20]

This distinction between the institution-centric approach of the past and the public-centric approach that is needed now is no small nuance. We believe that, however well intentioned, calls to "fund the Master Plan," or "restore the Master Plan," or even to "revise the Master Plan for the 21st Century" are not helpful. The Master Plan is, first and foremost, about preserving institutions as those institutions attempt to fulfill their historically-defined missions. A "public agenda," by contrast, is about identifying the means to ensure that all Californians benefit from a populace that has the education and training needed in today's society and economy. It is neither easy nor comforting to think about new institutional arrangements and systems for meeting unmet needs of Californians, but it is equally discomforting to think about a future California that leaves regions and populations without the skills, jobs, and myriad other benefits that spring from a vibrant public postsecondary education system.

Category	Current Performance	10-year Trend
Preparation	Worse than most states	↑
Affordability	Average	↓
Participation	Better than most states	↔
Completion	Average	↔
Benefits	Better than most states	↔
Finance	Average	↔

A host of policy issues are ripe to address in ways that require a new kind of collective, collaborative planning and implementation. Some of the more obvious ones are as follows:

- California's implementation of the Common Core State Standards makes it vital for all of public P-16 education in the state to work closely together to align expectations, assessments, and teaching strategies to vastly improve college and career readiness and success.
- A rational affordability policy addressing tuition and financial aid in a coherent manner across the state's regions and institutions has never been more important than it is today, with so many of California's families making choices about postsecondary education with costs foremost in mind.
- California has a large population of working-age adults without postsecondary credentials of value in today's economy. New approaches will be needed to educate these individuals and to ensure that another generation does not similarly fall through the cracks of the institutional structures that we have in the state.

- Changes in the labor market have put a premium on technical education at all levels but California's public postsecondary institutions are falling short of meeting the need for workers in technical fields.
- There are unsustainable differences in education levels across racial/ethnic and income groups in the state that must be addressed in light of the clear demographic trends in the state.
- New instructional technologies are providing opportunities for improving the quality of learning and the accessibility to postsecondary education, and may usher in new forms of institutional cooperation as well as new institutional forms themselves in the search to best serve the public.

The Data Imperative

Each time we issue this report on California postsecondary education we conclude with a plea that California must, and can, do better. This time we have an additional plea that is motivated by the alarming decline in the availability of data. With the cessation of data collection efforts by the defunct California Postsecondary Education Commission, we struggled to even complete this baseline report, as some important data on college participation and completion are no longer available for the three public segments. The UC, CSU, and CCC each provide considerable public data but each decides what to provide and how to define and frame the data. That arrangement simply cannot support quality state-level planning for the same reason that the 1960 Master Plan, with its focus on institutions rather than the public good, cannot be resurrected to guide us now and in the future. The three segments have agreed to share some data with one another for select purposes but this too falls well short of having comprehensive and timely data to inform and shape a public agenda to educate Californians. Take a hard look at the data in this report because this is likely the last time that we will be able to provide a full accounting of these trends.

Next Steps

Part II of this project is to develop a model public agenda for California, using the data in this report as a baseline and drawing on examples from across the country to guide us in setting forth the kinds of goals, metrics, and policy initiatives that might serve the state well as it works to improve on current performance. For Part III we will prepare case studies of state-level leadership exercised in other states to improve postsecondary performance and draw out implications for California. Owing to the efforts of many researchers and advocates, the case for change has been starkly laid out. Taking steps forward from here will be challenging without an infrastructure to support collective planning and with new holes in the state's data systems. But there are many people and organizations eager to help. It is our hope that this project can be of assistance.

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 *Measuring Up*. Most of the measures came from the National Center for Higher Education Management System's Information Center for Higher Education Policymaking and Analysis.[21] 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.[22]

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 25% 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 Table 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 *Measuring Up* report, which were "determined by existing research documenting the significance of these variables as a measure of category performance."[23] 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 *Measuring Up* 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.

Table 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	Worst than Most	2
Lowest Score	Among the Worst	1

Each of these categories was given equal weight. The weights are shown in Table A2. 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 benefits category

Table A3 shows California's performance on the six measures for the benefits area. In California, the percent of the population age 25-34 with a bachelor's degree was 31%. The performance of all 50 states ranged from 20% to 48% and California's performance was closest to the median (31%), giving it a performance ranking of average and a rank score of 3. The weight for this measure was approximately 0.17, meaning that this measure accounted for 17% of the total index score. Multiplying California's rank score of 3 by the weight gives a weighted score of 0.50. The sum of all of the weighted scores for this performance area is 4 which translates into better than average performance for this index overall.

Table A2
Weights for Performance Measures

Measure	Weight
Preparation	
High School Completion (47.2%)	
Public high school graduation rate (2009)	.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 (2011)	.050
Percent of 8th graders at or above proficient on NAEP - READING (2011)	.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 (2011)	.050
Affordability	
Family ability to pay (first-time, full-time undergraduates) (50%)	
Percent of family income to pay for public 4-year college (2009) (lowest)	.310
Percent of family income to pay for public 2-year college (2009) (lowest)	.190
Strategies for affordability (40%)	
State grant aid targeted to low-income families as share of Pell grant aid (2008) (highest)	.133
Percent of family income from lowest quintile- public 4-year college (2009) (lowest)	.133
Percent of family income from lowest quintile- public 2-year college(2009) (lowest)	.133
Reliance on loans (10%)	
Average loan amount students borrow each year (2007) (lowest)	.100
Participation	
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
Completion	
Persistence (20%)	
Retention rate - first time college freshmen returning second year (2010)	.200
Completion (80%) *NCHEMS has several other measures under Efficiency & Effectiveness rather than Completion*	
Graduation rate - 6-year for bachelors (2009)	.114
Graduation rate - 3-year for associate (2009)	.114
Credentials and degrees awarded per 100 FTE-public 4-year total (2009)	.114
Credentials and degrees awarded per 100 FTE-public 2-year total (2009)	.114
Pipeline - transition-completion rate from 9th grade to college (2008)	.114
Credentials and degrees awarded per 1000 residents without college degrees (2009)	.114
Credentials and degrees awarded per 1000 residents employed with college degrees (2009)	.114

Appendix 1

Table A2 (continued)

Measure	Weight
Benefits	
Educational Achievement (50%)	
Percent of population age 25-34 with BA (2011)	.167
Percent of population age 35-44 with BA (2011)	.167
Percent of population age 45-64 with BA (2011)	.167
Economic Benefits (50%)	
Difference in median earnings between a high school diploma and an associates degree, 25 to 64 year olds (2010)	.167
Difference in median earnings between a high school diploma and a bachelors degree, 25 to 64 Year olds (2010)	.167
Per capita personal income (2011)	.167
Finance	
Per student funding (50%)	
State and local support per FTES (2011)	.250
Total revenues (appropriations + tuition) per FTES (2011)	.250
State higher education financing emphasis (50%)	
State and local support for higher ed per capita (2011)	.167
State and local support for higher ed per $1000 of personal income (2011)	.167
Higher ed priority - appropriations relative to state/local tax revenues (2005)	.167

Table A3
Example of Scoring Performance Categories – Benefits

NCHEMS Measure (most recent year)	CA Figure	CA Rank	Highest	75th Percentile	Median	25th Percentile	Lowest	Ranking	Rank Score	Weight	Weighted Rank Score
Educational Achievement (50%)											
Percent of population age 25-34 with BA (2011)	30.5%	25	48.1	35.2	30.2	26.2	20.4	Average	3.0	.167	.50
Percent of population age 35-44 with BA (2011)	32.4%	18	43.9	33.9	30.6	27.5	21.7	Better	4.0	.167	.66
Percent of population age 45-64 with BA (2011)	30.5%	16	39.1	31.3	27.3	25.1	18.0	Better	4.0	.167	.66
Economic Benefits (50%)											
Difference in median earnings between a high school diploma and an associates degree, 25 to 64 year olds (2010)	$14,547	1	$14,547	$ 10,237	$9,269	$8,323	$5,080	Best	5.0	.167	.83
Difference in median earnings between a high school diploma and a bachelors degree, 25 to 64 year olds (2010)	$28,876	1	$28,876	$21,248	$18,503	$16,378	$11,344	Best	5.0	.167	.83
Per capita personal income (2011)	$44,481	12	$56,889	$44,388	$39,833	$ 36,359	$ 32,176	Better	4.0	.167	.66
Index Rank Score	**4**										
Index Ranking	**Better than Average**										

Appendix 2

List of Counties by Region

Region	Counties in Region
North Coast	Del Norte, Humboldt, Lake, Mendocino
Superior California	Lassen, Modoc, Shasta, Siskiyou, Trinity
Upper Sacramento Valley	Butte, Colusa, Glenn, Plumas, Sierra, Tehama
Sacramento-Tahoe	Alpine, Amador, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, Yuba
San Francisco Bay	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
Monterey Bay	Monterey, San Benito, Santa Cruz
North San Joaquin Valley	Calaveras, Fresno, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne
South San Joaquin Valley	Kern, Kings, Tulare
Inyo-Mono	Inyo, Mono
Central Coast	San Luis Obispo, Santa Barbara, Ventura
Los Angeles County	Los Angeles
Orange County	Orange
Inland Empire	Riverside, San Bernardino
San Diego/Imperial	Imperial, San Diego

Appendix 3

Methods for Calculating Measures by Region and by Race/Ethnicity

Following are summaries of the calculations made for each measure, with the calculations done using data by county (aggregated into regions) or by race/ethnicity.

Preparation *(all measures include only public school students)*

1. Share of 8th Graders at or above "Proficient" in Language Arts

   Source: California Department of Education on-line Dataquest

   Calculation:
   Numerator: number of 8th grade students scoring "proficient" or "advanced" on the California Standards Test for English-Language Arts, 2013

   Denominator: total number of 8th grade students taking the test, 2013

2. Share of 8th Graders at or above "Proficient" in Math

   Source: California Department of Education on-line Dataquest

   Calculation:
   Numerator: number of 8th grade students scoring "proficient" or "advanced" on the California Standards Tests for General Mathematics (Grades 6 & 7 Standards) and Algebra I, 2013

   Denominator: total number of 8th grade students taking the General Math and Algebra I tests, 2013

3. Number of Advanced Placement (AP) Scores >=3 per 1,000 11th and 12th Graders

   Source: California Department of Education on-line Dataquest (by region) and The College Board's *AP Report to the Nation State Supplement – California* (by race/ethnicity)

   Calculation:
   Numerator: Number of students scoring a 3 or greater on an AP test, 2011-12

   Denominator: Total enrollment in 11th and 12th grade, 2011-12
   Result multiplied by 1,000

4. Number of Scores on SAT >= 1500 and on ACT >= 21 per 1,000 High School Seniors

   Source: California Department of Education on-line Dataquest (not available by race/ethnicity)

   Calculation:
   Numerator: Number of students scoring 1500 or greater on the SAT + number of students scoring 21 or greater on the ACT, 2011-12

   Denominator: Total 12th grade enrollment, 2011-12
   Result multiplied by 1,000

5. Enrollment in Advanced Science as a Share of 11th-12th Grade Enrollment

   Source: California Department of Education on-line Dataquest

   Calculation:
   Numerator: Number of students enrolled in Chemistry, Advanced Chemistry, Physics, Advanced Physics, or any Advanced Placement science course, 2011-12

   Denominator: Total enrollment in 11th and 12th grade, 2011-12

6. Enrollment in Advanced Math Courses as a Share of 11th-12th Grade Enrollment

   Source: California Department of Education on-line Dataquest

   Calculation:
   Numerator: Number of students enrolled in math courses above the level of Algebra II, including Trigonometry, Precalculus, Probability and Statistics, Calculus, or any Advanced Placement math course, 2011-12

   Denominator: Total enrollment in 11th and 12th grade, 2011-12

7. Share of High School Graduates Completing the A through G Curriculum

   Source: California Department of Education on-line Dataquest

   Calculation:
   Numerator: Number of graduates completing A-G curriculum, 2011-12

   Denominator: Total number of high school graduates, 2011-12

8. Share of High School Juniors Participating in the Early Assessment Program (EAP) that Tested as "College Ready" or "Ready – Conditional" in English

   Source: California State University Chancellor's Office website for EAP results

   Calculation:
   Numerator: Number of juniors scoring "ready for college" or "ready – conditional" on English exam, 2013

   Denominator: Total number of juniors tested on EAP exam for English, 2013

9. Share of High School Juniors Participating in the Early Assessment Program (EAP) that Tested as "College Ready" or "Ready – Conditional" in Math

   Source: California State University Chancellor's Office website for EAP results

   Calculation:
   Numerator: Number of juniors scoring "ready for college" or "ready – conditional" on either Algebra II or Summative Mathematics exam, 2013

   Denominator: Total number of juniors tested on EAP exam for math, 2013

Participation

1. Percent of 18 to 24 year-olds Enrolled in College

   Source: US Census, American Community Survey 2012, Table B14004 (for counties where ACS 2012 data were not available we used data from ACS 2007-11 5-Year Estimates)

   Calculation:
   Numerator: Number of people ages 18 to 24 enrolled in college or graduate school

   Denominator: Total number of people ages 18-24

2. Percent of Adults Ages 25 and over Enrolled in College

   Source: US Census, American Community Survey 2012, Table B14004 (for counties where ACS 2012 data were not available we used data from ACS 2007-11 5-Year Estimates)

   Calculation:
   Numerator: Number of people ages 25 and older enrolled in college or graduate school

   Denominator: Total number of people ages 25 and older

3. College Going Rate

   Source: California Department of Education on-line Dataquest and data provided by the CCC Chancellor's Office, the UC Office of the President and the Institute for Social Research at CSU Sacramento (based on data provided to them by the CSU Chancellor's Office)

   Calculation:
   Numerator: Number of first-time freshmen ages 19 and under enrolled in UC, CSU and CCC (program type=regular) Fall 2012

   Denominator: Total number of high school graduates, 2011-12.

   Notes: For data by region, the numerator includes freshmen age 19 and under who graduated from high school in that region, and the denominator includes all high school graduates from the region.

4. 9th Graders Enrolling in College within 4 Years

   Source: California Department of Education on-line Dataquest and data provided by the CCC Chancellor's Office, the UC Office of the President and the Institute for Social Research at CSU Sacramento (based on data provided to them by the CSU Chancellor's Office)

   Calculation:
   Step 1: High School Completion Rate
   Numerator: Number of high school graduates 2011-12

   Denominator: Number of 9th graders in 2008-09

   Step 2: College Going Rate (see calculation in #3 above)

   Step 3: Multiply the high school completion rate by the college going rate

Completion

1. Number of BA Degrees Awarded per 100 Undergraduates Enrolled (UC/CSU)

   Source: Data provided by the UC Office of the President and the Institute for Social Research at CSU Sacramento (based on data provided to them by the CSU Chancellor's Office)

   Calculation:
   Numerator: Number of bachelor's degrees awarded at UC and CSU, 2012

   Denominator: Total undergraduate enrollment at UC and CSU, fall 2012

   Notes: For data by region, the numerator includes number of degrees awarded to students whose high school of origin is in the region and the denominator includes all students enrolled whose high school of origin is in the region.

2. Number of Certificates and Degrees Awarded per 100 Undergraduates Enrolled (CCC)

   Source: CCC Datamart and data provided by the CCC Chancellor's Office

   Calculation:
   Numerator: Total number of certificates and degrees awarded at community colleges, 2012

Denominator: Total enrollment at community colleges, fall 2012

Notes: For data by region, the numerator includes the number of certificates/degrees awarded by community colleges located in the region and the denominator includes all students enrolled in community colleges in the region. Community colleges do not always gather information on the high school attended. However, community colleges primarily serve local students, so calculations based on the location of the college should reasonably represent the completion rates for the residents of each region.

Benefits

1. Share of the Population Aged 25-64 with a BA Degree by Region

   Source: US Census, American Community Survey 2012, Table B15001 (data for counties not represented in the ACS 2012 files were gather from the ACS 2007-11 5-Year Estimates)

   Calculation:
   Numerator: Number of people ages 25 to 64 possessing a BA degree or higher

   Denominator: Total population ages 25 to 64

2. Share of the Population Aged 25 and Over with a BA Degree by Race/Ethnicity

   Source: US Census, American Community Survey 2012, Table B15002

   Calculation:
   Numerator: Number of people ages 25 and over possessing a BA degree or higher

   Denominator: Total population ages 25 and over

   Notes: Data for the working-age population (25-64) were not available by race/ethnicity in the ACS tables

3. Per Capita Income

   Source: US Census, American Community Survey 2012, Tables B19313 and B01001 (for the analysis by region, income data for counties not represented in the ACS 2012 files were gathered from the ACS 2007-11 5-Year Estimates)

   Calculation:
   Numerator: Aggregate income

   Denominator: Total population

Endnotes

1 California Postsecondary Education Commission (2008). *Beyond the looking glass: Assessing performance in California postsecondary education*. Sacramento, CA: Author; Legislative Analyst's Office (2009 – 2011). *The Master Plan at 50* (series of reports). Sacramento, CA: Author; Johnson, H. (2010). *Higher education in California: New goals for the Master Plan*. San Francisco: Public Policy Institute of California; Institute for Higher Education Leadership & Policy (2011). *Consequences of Neglect: Performance Trends in California Higher Education*. Sacramento: Author; California Competes (2012). *The road ahead: Higher education, California's promise, and our future economy.* San Francisco: Author; Bohn, S., Grattet, R., Hanak, E., Hayes, J., Hill, L., Johnson, H., McConville, S., Warren, P., & Weston, W. (2013). *California 2025: Planning for a better future* (2013 update). San Francisco: Public Policy Institute of California; Geiser, S. & Atkinson, R.C. (2013). Beyond the Master Plan: The case for restructuring baccalaureate education in California. *California Journal of Politics and Policy, 5*(1), 67-123. Little Hoover Commission (2013). *A New Plan for a New Economy: Reimagining Higher Education*. Sacramento, CA. Author; Committee for Economic Development (2013). *Boosting California's Postsecondary Education Performance*. Washington, DC: Author.

2 See Appendix 2 for a list of counties included in each region

3 See http://www.highereducation.org/catreports/evaluating_state_performance.shtml

4 The earlier IHELP reports on higher education performance in California - *Consequences of Neglect, The Grades are In 2008, The Grades are In 2006,* and *The Grades are In 2004* - are available at www.csus.edu/ihelp.

5 CSU's Early Assessment Program (EAP) gives high school juniors the option of completing some additional items on the CST exams to determine their readiness for college. Students determined to be college ready based on the EAP exams are exempted from further assessment testing at the time of college entry, and are allowed to enroll in college-level courses. Those determined to be "conditionally" ready can be exempted from further assessment testing as long as they take a specific approved course during their senior year in high school or achieve a specified score in the relevant subject on a national standardized test (SAT, ACT or AP). As with the CST exams, the EAP exams will be incorporated into the new assessment tests being developed as part of implementing the Common Core State Standards beginning in 2014. Students will no longer need to "opt in" to taking the EAP exams, as there will be no additional set of questions. Levels of college readiness in English and math will be measured for all high school juniors as part of the K-12 system's regular assessment tests.

6 Recent legislation (AB 484, Chapter 489, Statutes of 2013) establishes the Measurement of Academic Performance and Progress (MAPP) as the statewide assessment program for California students, and permits the results of the grade 11 MAPP assessments in English and math to be used for the Early Assessment Program.

7 This report combines all persons of Asian or Pacific Islander descent into one category due to data limitations. There are likely substantial differences across Asian sub-populations in measures related to college preparation, participation and completion which are masked by using only one category.

8 The College Board (2013). *The 9th Annual AP Report to the Nation State Supplement – California*. Washington, DC: Author.

9 The College Board (2012). *2012 College Bound Seniors State Profile Report – California*. Washington, DC: Author.

10 Baron, K. (2013, August 8). STAR test scores decline for first time in a decade. EdSource: *Highlighting Strategies for Student Success*. Retrieved from http://www.edsource.org/today/2013/star-test-scores-decline-for-first-time-in-a-decade/36992#.Ulbvlujn-70.

11 Oliff, P., Palacios, V., Johnson, I., & Leachman, M. (2013). *Recent deep state higher education cuts may harm students and the economy for years to come.* Washington, DC: Center on Budget and Policy Priorities.

12 Baldassare, M., Bonner, D., Petek, S., & Shrestha, J. (2012). *PPIC statewide survey: Californians & the future.* San Francisco: Public Policy Institute of California.

13 The archived California Postsecondary Education Commission website 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.

14 Bohn, S., Reyes, B., & Johnson, H. (2013). *The impact of budget cuts on California's community colleges.* San Francisco: Public Policy Institute of California.

15 Johnson, H. (2012). *Defunding higher education: What are the effects on college enrollment?* San Francisco: Public Policy Institute of California.

16 The community colleges have recently developed and begun to award associate degrees for transfer, designed for students planning to transfer to the CSU system. Going forward, the availability of these new degrees is likely to affect the historically low share of transfer students that earn an associate degree before transferring.

17 Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013: The benefits of higher education for individuals and society.* New York: The College Board.

18 The educational attainment data by race/ethnicity in Figure 19 represents attainment for the entire population aged 25 and over, rather than the working age population (ages 25-64) used in the regional analysis in Figure 18. This is due to the way data were available in the American Community Survey summary tables.

19 The income in figure 19 includes the aggregate income of all members of that population, not just those with a college education. So the figure does not represent any pay disparities across racial/ethnic groups for people with a college degree.

20 Committee for Economic Development, 2013, p. 23

21 http://www.higheredinfo.org/

22 http://nces.ed.gov/nationsreportcard/states/

23 National Center for Public Policy and Higher Education (2008). Technical Guide for *Measuring Up 2008*.

INSTITUTE FOR HIGHER EDUCATION
LEADERSHIP & POLICY

IHELP thanks the following sponsor for its support of this research and report.

The Campaign for
College
Opportunity

The Institute for Higher Education Leadership & Policy conducts research and applies knowledge and evidence to produce actionable recommendations to improve policy, practice, and leadership for postsecondary readiness and success.

CALIFORNIA STATE UNIVERSITY
SACRAMENTO
Institute for Higher Education Leadership & Policy

6000 J Street, Tahoe Hall 3063 | Sacramento, CA 95819-6081
T (916) 278-3888 | F (916) 278-3907 | *www.csus.edu/ihelp*