INSTITUTE FOR HIGHER EDUCATION
LEADERSHIP & POLICY

CONSEQUENCES OF NEGLECT:

Performance Trends in California Higher Education

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Executive Summary

California lawmakers have found it increasingly difficult to protect the state's investment in its colleges and universities over the last decade despite the growing evidence that the state needs far more of its citizens to earn postsecondary credentials. Additionally, California higher education continues to operate without effective coordination and with no state-level planning, despite continued calls for the state to set goals and develop plans to ensure that its colleges and universities will drive 21st Century economic competitiveness and social well-being. This report demonstrates the consequences of resting on reputations and policies of yesteryear. California is nowhere near a leader on the measures of higher education performance that the nation's governors and educational leaders have been tracking for over a decade. We are average, at best, and trending downward.

Over the seven years that the Institute for Higher Education Leadership & Policy (IHELP) has been tracking these measures, developed by a leading national policy organization (see box), there has been improvement in only one area – the preparation of high school students for college – and we are still worse than most states in that category. IHELP offers this report in the hope that Californians will commit to reversing the trend toward producing young generations that are not as well educated as we need them to be. In particular, we hope that those who benefitted in their lifetimes from the public colleges and universities that made the state great will act to afford that same opportunity to young Californians and reverse the decline toward the bottom of the pack. It is a serious mistake to assume that a subset of high profile, high performing colleges and universities equates to a public postsecondary system that is up to the task of educating growing generations of Californians. The outcomes documented in this report are not ones to celebrate. Times are tough – but they are tough across the country. California should do better.

Category	Current Performance	7-year Trend
Preparation	Worse than most states	↑
Affordability	Average	↓
Participation	Better than most states	↓
Completion	Average	↔
Benefits	Average	↔
Finance	Average	↓

Key Findings by Category

- California's performance in each of the categories place the state no higher than average, except participation, where the data showing strong participation compared to other states may be outdated and not account for recent recession-related budget cuts and enrollment pressures.
- While still performing worse than most states on national measures, internal state data show improvement in the area of preparing K-12 students for higher education, including among the under-represented minority populations whose college preparation has lagged.
- California rates about average among the states on affordability, but budget cuts and substantial increases in tuition and fees may be eroding the state's position on affordability; paying for rising and unpredictable college costs is a challenge for many of the state's students and their families.

About this Report Series: This is the fourth in IHELP's series of reports previously titled *The Grades are In*. Each report (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.[1] *The Grades are In* reports explored California's grades in more depth and provided additional analyses of performance by region and by race/ethnicity.[2] The National Center did not issue a *Measuring Up* report card in 2010 in anticipation of its planned closure. This report uses available data to rate the performance of California higher education in a national context and updates the prior analyses of variations across regions and groups within the state.[3]

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[4] 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 category or California's specific placement among states, except where we comment on 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 1 and 3 for more details about methodology.)

- Comparatively higher participation in college too often fails to lead to degree completion. While graduation rates for full-time students are high, California performs poorly on the number of degrees awarded in relation to enrollment.
- The public benefits associated with educational attainment may be at risk. While the share of the population with a bachelor's degree is higher than in many states, California's relative position is declining as each successively younger working-age generation is less highly educated than the one before.
- California *ranks 50th* among states in *total* funding per student. *State-allocated* funding is a little below the national average but *tuition revenue* per student to support public higher education is *far* below the national average, owing to the very low tuition in the large community college system. The average state revenue and lowest tuition revenue combine to leave California in last place in total funding per student.
- Across all categories for which data permit regional and racial/ethnic breakdowns, there are significant disparities that threaten future educational attainment and competitiveness. Black and Latino students continue to lag behind other racial/ethnic groups in levels of college preparation, participation, and completion. The growing inland areas of the state generally lag the older, coastal communities in performance.

Conclusions

- California's future prosperity rests on its ability to dramatically improve outcomes for those populations and regions that seriously lag the rest of the state. These include immigrants, native first-generation college students, and low-income individuals of all races and ethnicities. Closing these performance gaps must become a top state priority with far more publicity and accountability by colleges and universities *and* lawmakers for ensuring equitable opportunities for access to postsecondary institutions that are equipped for and committed to student success.
- The current approach to funding higher education and setting policies is not effective. Whether it be done on a statewide or regional basis, there must be better planning, better data, wider involvement of lawmakers, and more authority to put in place the structures and policies that will produce better state-wide outcomes. Other states are taking far more proactive and intentional steps to improve postsecondary success, such as joining *Complete College America*, building integrated data systems, developing strategic plans, changing the incentives in their finance policies, and adopting statewide accountability plans that speak to vital state goals. California must regain the purposeful approach to higher education that it modeled over fifty years ago with the Master Plan for Higher 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 the data gathered by NCHEMS[5]
- ✓ analyses of data from other sources that allow for a breakdown of performance by region[6] and race/ethnicity, in order to focus attention on the key variations that warrant policy attention[7]
- ✓ a summary of trends in each performance area
- ✓ a brief description of some key issues in each performance area to provide the context for possible actions to improve performance, with a list of resource materials where more specific recommendations may be found for policy issues of interest
- ✓ 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.

How is California Performing?
Preparation

Preparation: Worse than Most States

+ California ranks 8th in the number of AP scores at 3 or above per 1,000 juniors/seniors.

– The high school graduation rate for the state is 68%, ranking 36th among the states.

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

College readiness is typically defined and measured in terms of students' academic skills and preparation to succeed in college-level courses. While there are many non-academic factors that affect postsecondary success, including students' motivation, commitment, time management skills, and understanding of the college context, measures of these attributes are not as readily available.

In terms of academic preparation for college, California performs worse than most states. The one bright spot compared to other states is the number of Advanced Placement (AP) test scores at 3 or above (the score needed to receive college credit), on which the state ranked 8th. Although California's AP students are relatively well prepared, other indicators point to preparation problems among the majority of students. In particular, levels of preparation among 8th graders were low as measured by the standardized tests that make up the National Assessment of Educational Progress. On all four subject tests, 25% or fewer 8th graders tested as proficient or better and the state ranks near the bottom on these measures. The state's high school graduation rate is also low relative to other states— nearly a third of ninth graders in the state do not complete high school within 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 50% or more in the Inyo-Mono region and Orange County to about 33% in the Inland Empire and the San Joaquin Valley.
  - Over 60% of 8th graders are proficient in language arts in Orange County and the San Francisco Bay, while 45% of 8th graders in the South San Joaquin Valley are proficient.
- Differences in the number of high scores on college entrance exams reflect variation in both the share of students taking the tests and the performance of the test-takers. 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 County. In contrast, less than one-quarter of seniors in Superior California, South San Joaquin Valley, the North Coast, and the Upper Sacramento Valley took the SAT.
- Similarly, the number of high scores on AP exams reflects, at least in part, differences in the availability of AP courses and exams across the state. AP test takers as a share of junior and senior enrollment was 25% or more in the Central Coast, Los Angeles and Orange Counties, the San Francisco Bay, and San Diego/Imperial, but only 12% to 18% in all other regions.
- 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).
  - The share of 8th graders taking algebra ranges from 45% in the Central Coast and the Inyo-Mono region to over 60% in the San Francisco Bay and the Inland Empire.
  - Enrollment in chemistry and physics as a share of 11th and 12th grade students is below 50% in all regions, and enrollment in advanced math courses is generally even lower, ranging from 18% in the South San Joaquin Valley to about 37% in the San Francisco Bay, Orange County and the Inyo-Mono region.
  - About 20% of high school graduates in the Upper Sacramento Valley and North Coast 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.

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,[9] 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.[10] New tests developed for the new standards could better assess college readiness on the most relevant dimensions.[11] Such tests might ultimately replace the California State University's (CSU) voluntary Early Assessment Program (EAP) tests, applying to all students and providing more detailed information about students' skills and readiness for use in placement. But none of these testing efforts will address noncognitive knowledge and skills that are hard to measure but are critically important for postsecondary success for underserved students and deserve more attention.

State's approach to algebra needs refinement

California has been moving toward "algebra for all" 8th graders. While algebra proficiency rates have increased even as more students take the course, a recent analysis shows that a growing number of 8th graders taking algebra are testing at below basic skill levels which could have been predicted based on the students' 7th grade CST scores.[12] Many students repeat Algebra I in the 9th grade, even among those who met or exceeded the standard on the 8th grade CST.[13] There is considerable variation in algebra placement policies across schools and districts. A more consistent set of criteria based on student readiness, combined with better supports for students and more professional development for teachers, could yield better results.

False dichotomy between "college" and "career" preparation shortchanges California's students

The debate between those who argue for all high school students completing a college-prep curriculum (a-g) and those who advocate for more access to high-quality career technical education (CTE) is not serving California or its students well. Advocates of "a-g for all" are fearful of tracking low-income and minority students into low-end vocational coursework and argue that requiring all students to complete a-g is the only way to ensure equity. Advocates for CTE point to high drop-out rates, especially for black and Latino students, and argue that many students find CTE courses more engaging and relevant to their interests and goals. A failure to recognize changes in vocational education and in the labor market may be prolonging the controversy. Today's CTE, when done well, provides students with academic skills and applied learning in fields with growing opportunities[14] – like computer networking, engineering technology, and allied health – in which pathways to family-supporting jobs may or may not include a bachelor's degree.[15] Efforts to designate more CTE courses "a-g" should continue, but students' CTE options need not be limited to those endorsed by the University of California (UC). The focus should be on ensuring that all students complete a high school curriculum that offers a viable pathway to a postsecondary credential of value.

Positive movement on assessment and placement practices in the CCC, but more work to be done

The California Community Colleges' (CCC) decentralized assessment sends confusing signals to high schools and students about standards for college readiness, and creates inefficiencies through duplicative testing of students at multiple colleges. System leadership favors a more coordinated approach. Its CCCAssess effort recently concluded that a centralized system would yield cost savings and other benefits,[16] with potential savings enticing colleges to participate. About 40 colleges have agreed to exempt entering students from testing if they are deemed college ready based on results of the CSU's EAP tests; other colleges may join the effort.[17] The use of EAP is a positive development, but does not eliminate the need for a centralized assessment system since many students do not take the EAP or do not receive "college ready" results, and others do not enter the CCC directly from high school. A promising national trend is the development of diagnostic assessments that allow remedial work to be targeted to students' specific weaknesses, possibly allowing for the replacement of sequences of developmental courses in which many students get stuck[18] with shorter remedial modules.[19]

Resources *(see Appendix 4)*

NCPPHE, *Beyond the Rhetoric*

California Budget Project, *Gateway to a Better Future*

EdSource, *Something's Got to Give*

WestEd, *One Shot Deal? Students' Perceptions of Assessment and Course Placement in California's Community Colleges*

JFF, *Setting Up Success in Developmental Education*

Harvard Graduate School of Education, *Pathways to Prosperity*

How is California Performing?

Preparation

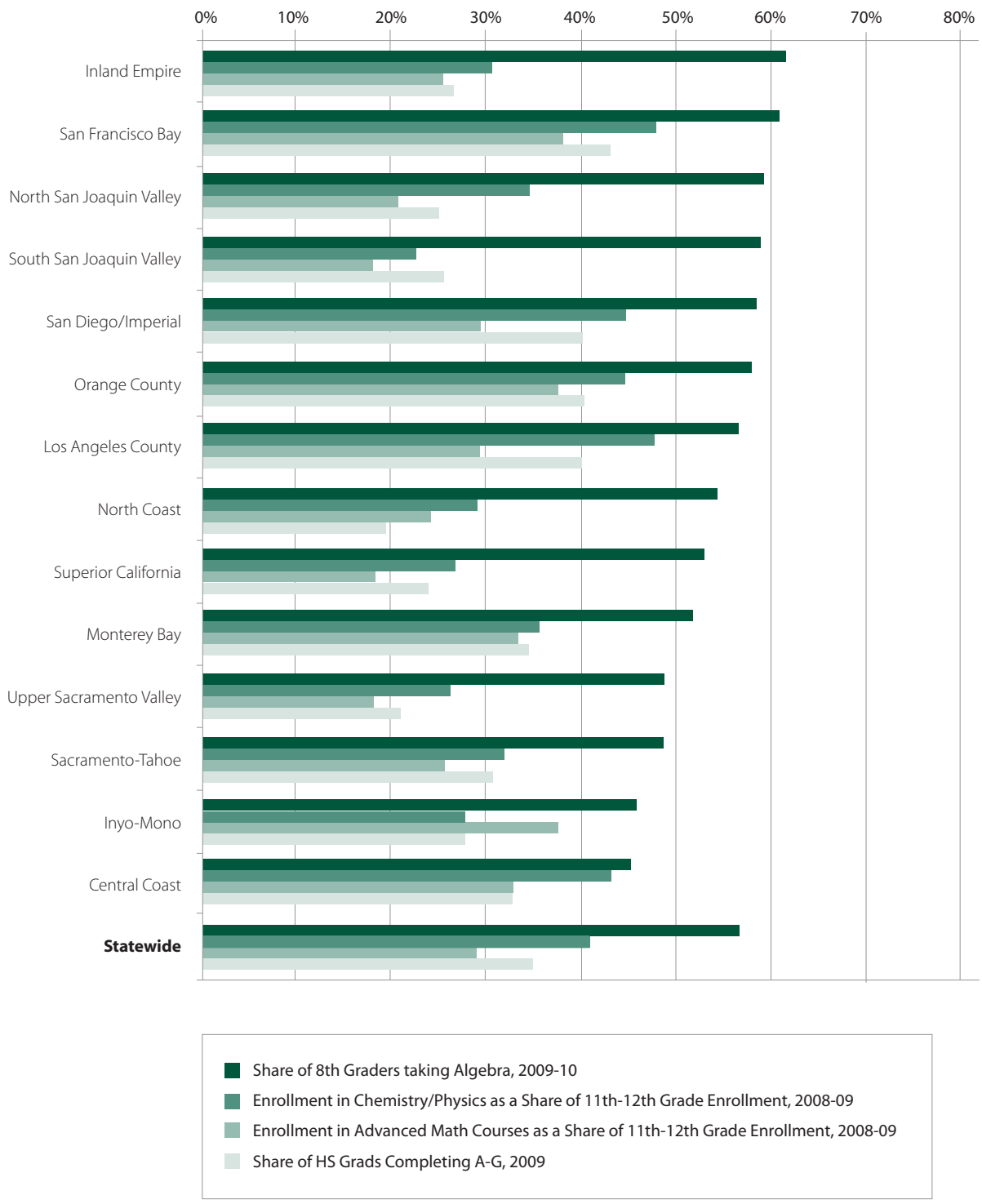
Table 1
K-12 Preparation Measures by Region

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 >=3 per 1,000 11th and 12th Graders, 2008-09	Number of Scores on SAT >=1500 and on ACT >=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

- Twenty percent of California 11th graders participating in the CSU's Early Assessment Program demonstrated readiness for college in English, while 14% demonstrated readiness for college-level math and another 41% were "conditionally" ready (Figure 2).[8] Readiness in English varied from 14% in the South San Joaquin Valley to 27% in the Central Coast, and math readiness (including conditional) varied from 42% in the Monterey Bay to 67% in the Central Coast. A larger share of California juniors participated in the English EAP (81%) than the math (38%). 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 26% in the North Coast to 43% in Orange County. Most regions had about three-quarters or more of juniors taking the English exam, although it was somewhat lower (67%) in the North Coast.

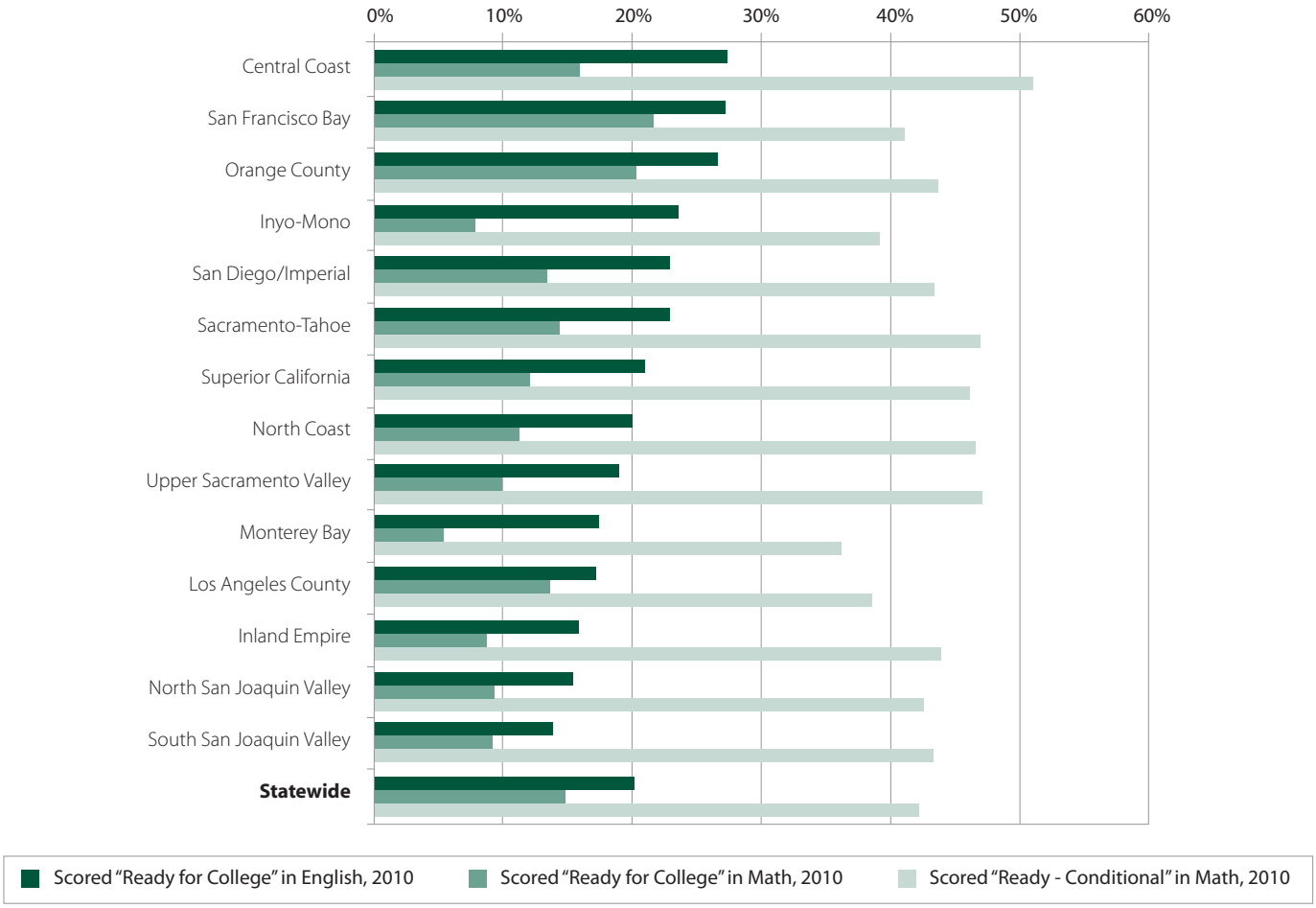
Figure 1
Enrollment in College Preparatory Courses by Region



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

How is California Performing?
Preparation

Figure 2
Share of Tested 11th Graders Demonstrating Readiness for College on Early Assessment Program (EAP) Exams

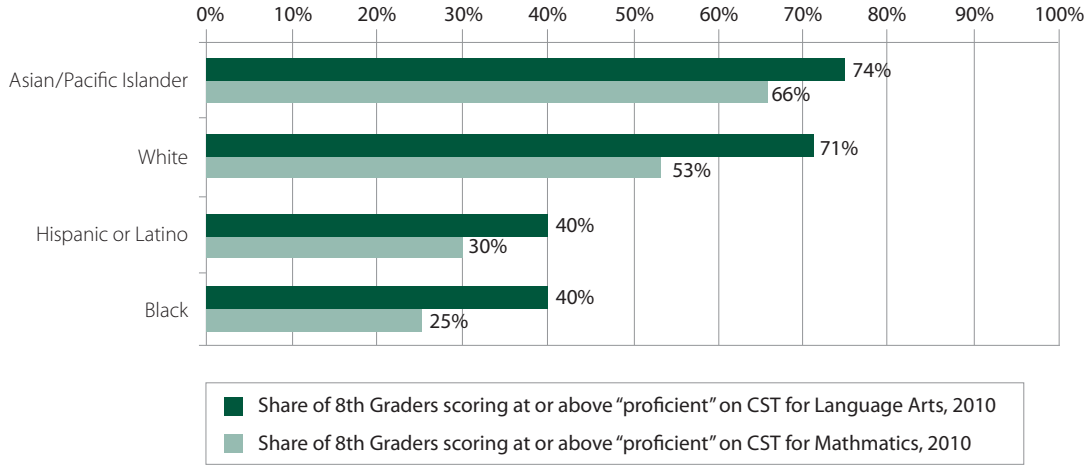


Source: Author calculations based on data from the California State University

Key Findings: Racial/Ethnic Differences

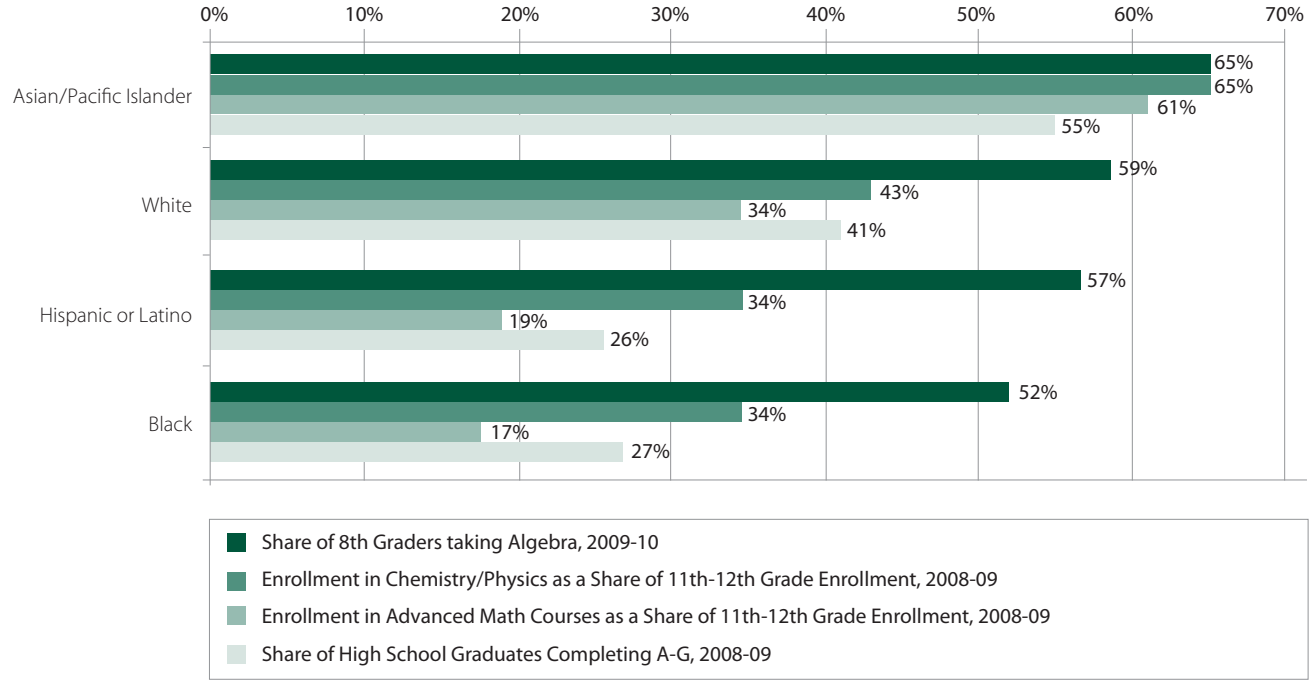
- Asian[20] and white 8th grade students are nearly twice as likely to be proficient in math and language arts as are black and Latino students (Figure 3).
- Black and Latino students are substantially less likely to take advanced math in high school and to complete the series of courses required for admission to the state's public universities, although there is less disparity in the share of 8th graders taking algebra (Figure 4). Asian students are the most likely to take rigorous college preparatory coursework.
- Black and Latino students are less likely to participate in the Early Assessment Program, especially in math. Among 11th graders, only 24% of black and 30% of Latino students took the math EAP exam, compared to 41% of white and 60% of Asian students, likely related to the lower share of black and Latino students enrolled in the level of math course that qualifies them to participate. Disparities in taking the English exam are less stark, with 69% of black students and 75% of Latinos participating, compared to 79% of white and 88% of Asian students.
- Among high school juniors who take the EAP exams, black and Latino students are substantially less likely to be found ready for college (Figure 5).

Figure 3
8th Grade Proficiency on the California Standards Tests



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

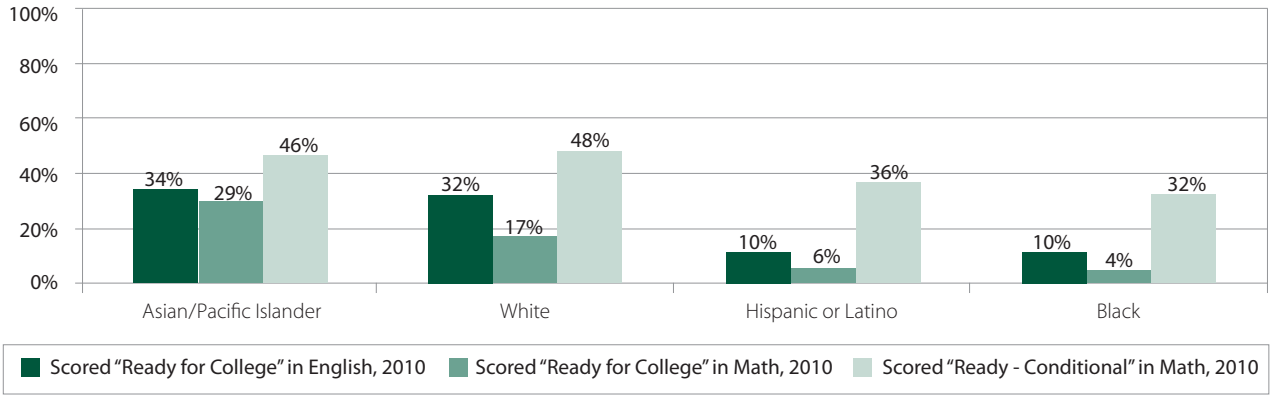
Figure 4
Enrollment in College Preparatory Courses by Race/Ethnicity



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

How is California Performing?
Preparation

Figure 5
Share of Tested 11th Graders Demonstrating Readiness for College on Early Assessment Program (EAP) Exams

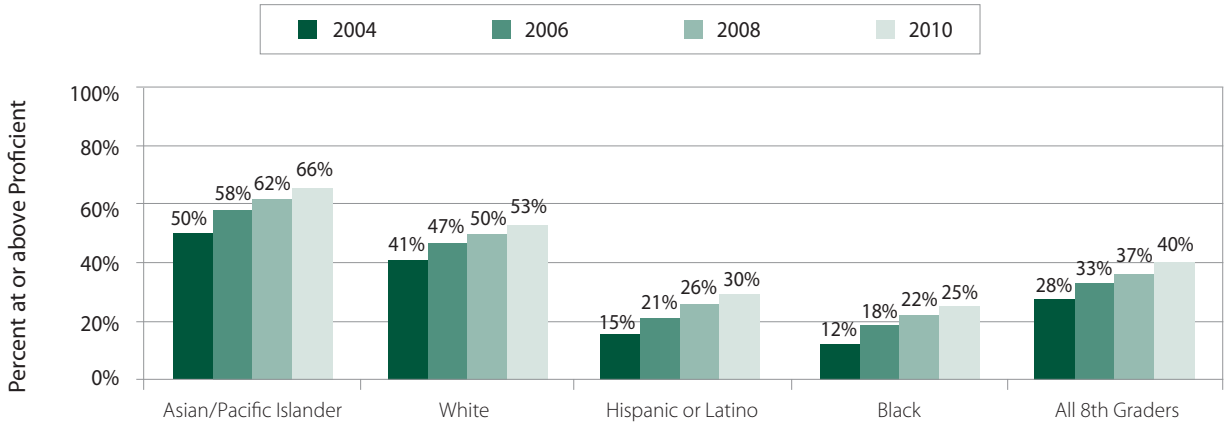


Source: Author calculations based on data from the California Department of Education

Performance Trends

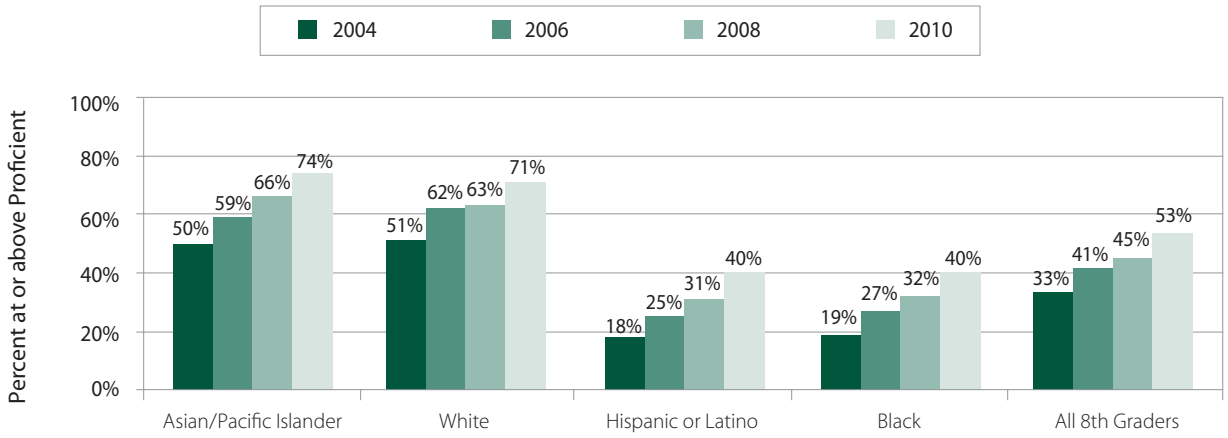
- The share of 8th graders scoring at or above the proficient level in math increased over the last several years, from 28% in 2004 to 40% in 2010. Students of all racial/ethnic groups improved their performance (Figure 6), but substantial disparities remain between white and Asian students on the one hand and black and Latino students on the other.
- Math proficiency improved in all regions of the state, with increases of fifteen percentage points or more in the South San Joaquin Valley, the San Diego/Imperial region, and Los Angeles County.
- The share of California 8th graders proficient in language arts increased by 20 percentage points, from 33% in 2004 to 53% in 2010 (Figure 7). The rate of proficiency doubled for black and Latino students, but a substantial disparity with white and Asian students remains. Language arts proficiency increased substantially in all regions of the state.
- The share of California 8th graders taking algebra has increased substantially, from 38% in 2003-04 to 58% in 2009-10 (Figure 8). An increase occurred for all racial/ethnic groups and in all regions. Particularly large increases of about 25 percentage points were seen in the rural areas of the North Coast, Inyo-Mono, and Superior California, and in the North San Joaquin Valley, the San Francisco Bay, and Orange County.
- Enrollment in advanced math courses as a share of high school juniors and seniors was about 29% statewide for 2009-10 compared to 27% in 2003-04, a small increase possibly related to the increase in 8th graders taking algebra. There was also a small increase in enrollment in chemistry and physics as a share of juniors and seniors, from 38% in 2003-04 to 41% in 2009-10.
- The share of high school graduates completing the a-g curriculum has remained fairly flat at 35% (Figure 9). There were slight increases within racial/ethnic groups, but the overall rate has not increased because of the growing share of graduates that is Latino (with a lower rate of completing a-g). The changes varied across regions, with a number of regions actually showing declines: the North Coast, Superior California, the Upper Sacramento Valley, the North San Joaquin Valley, and Sacramento-Tahoe. The share of graduates completing a-g increased from between one and five percentage points in the other regions.
- More high school juniors are participating in the Early Assessment Program. Between 2006 and 2010, the share of juniors taking the English exam rose from 67% to 80% and the share taking the math exam increased from 29% to 38%.
    - The share meeting college readiness standards in English increased from 15% in 2006 to 21% in 2010 (Figure 10), increasing among all racial/ethnic groups and all regions.
    - The share determined to be ready for college math (including "ready-conditional") rose only slightly from 55% to 57%, although the increases were somewhat larger among non-white students (Figure 11).

Figure 6
Trends in Math Proficiency of 8th Graders



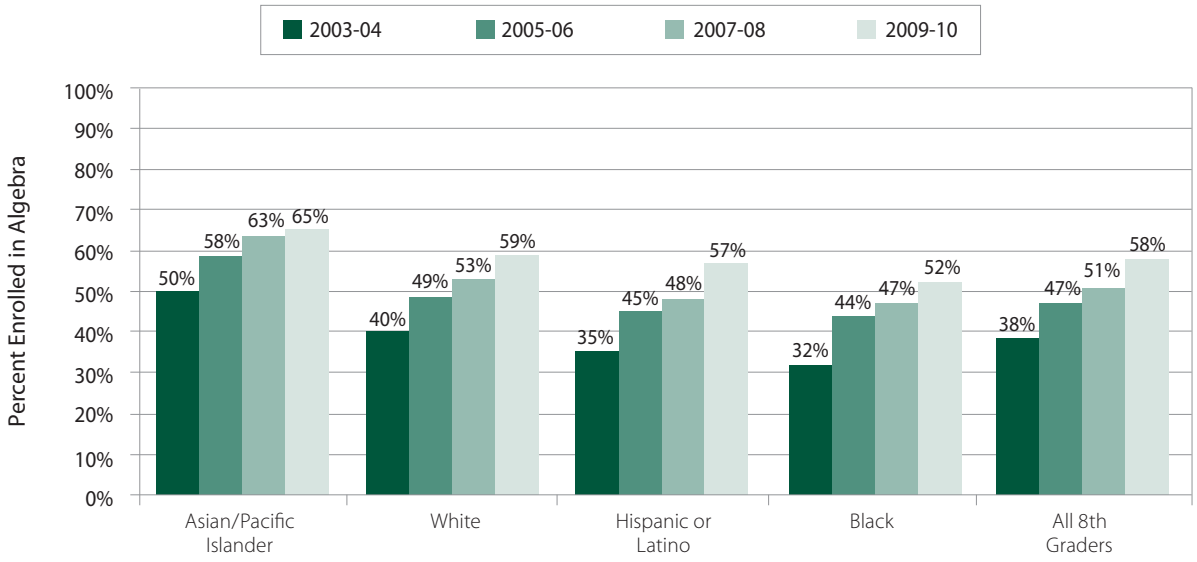
Source: Author calculations based on data from the California Department of Education

Figure 7
Trends in Language Arts Proficiency of 8th Graders



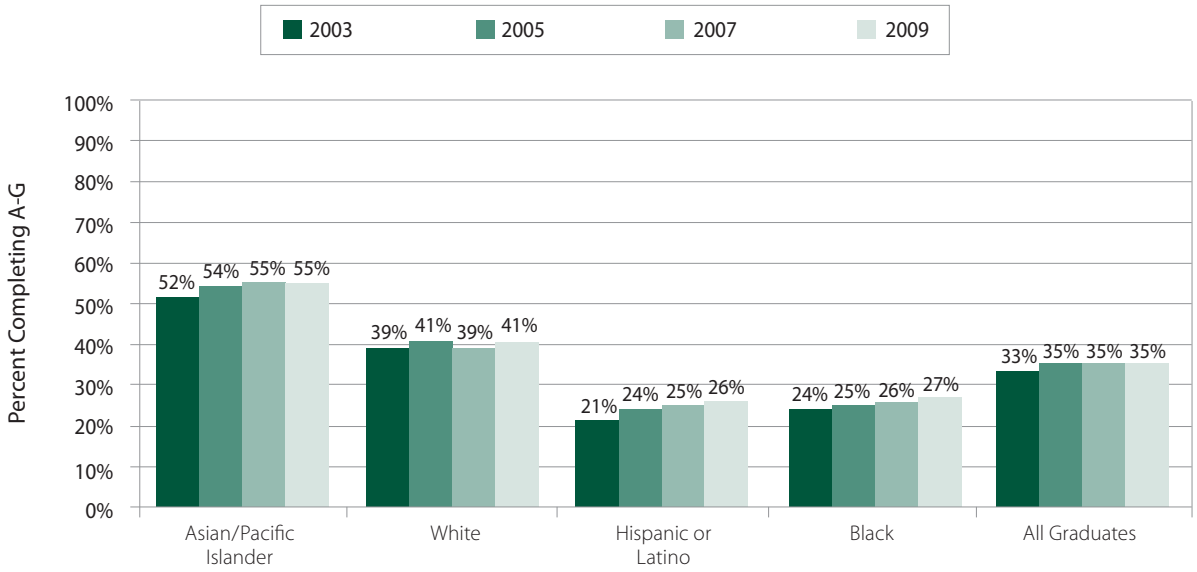
Source: Author calculations based on data from the California Department of Education

Figure 8
Trend in Percent of 8th Graders Taking Algebra



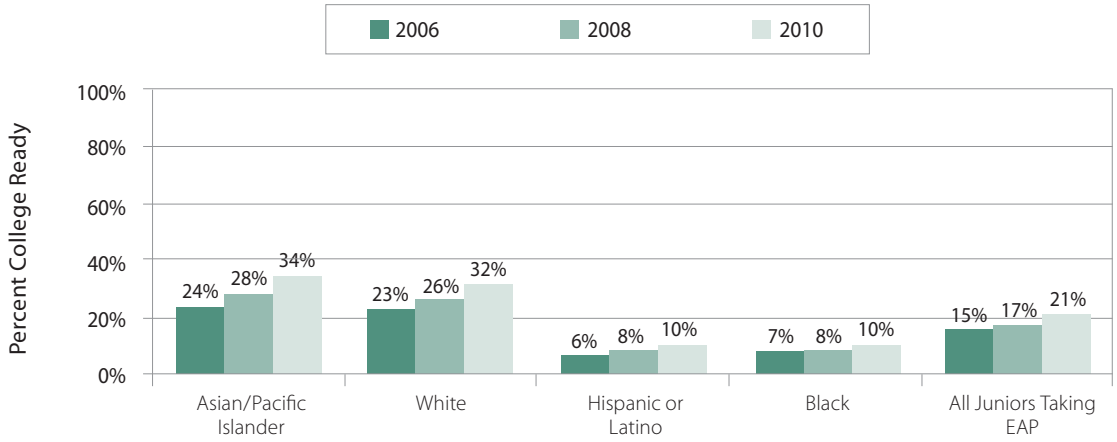
Source: Author calculations based on data from the California Department of Education

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



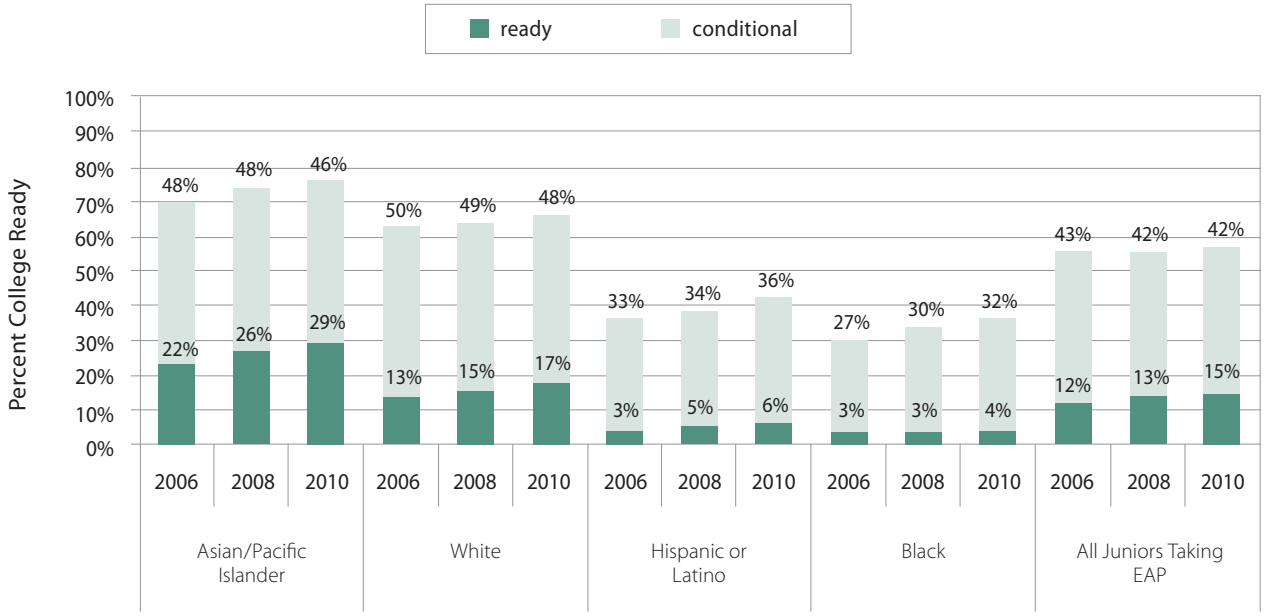
Source: Author calculations based on data from the California Department of Education

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



Source: Author calculations based on data from the California State University

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



Source: Author calculations based on data from the California State University

How is California Performing?
Affordability

Affordability: Average

+ California's poorest families pay the lowest share of their income for tuition at the lowest-priced college.

+ State grant aid targeted to low-income families as a share of Pell grant aid was higher than in most states. The state ranked 14th on this measure.

+/- The state ranked 26th on the percent of family income to pay for public 4-year college (including room and board).

– The state ranked below most states in the share of family income needed to pay for private four-year and public two-year college (including room and board).

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.[21]

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,[22] 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.

- 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).

- Affordability has declined significantly for students who rely on the "access" portion of Cal Grants intended for non-tuition costs like housing, textbooks, transportation, and other living expenses. The fixed $1,551 access award has not kept pace with rising college costs. Table 2 shows that the non-tuition portion of college costs is substantial in all segments, yet these costs are not well addressed by the Cal Grant program.

- Financially needy UC students (as determined by federal aid definitions) have likely weathered the rising costs of higher education better than students in the other segments. UC has an institutional aid program that contributes toward unmet need remaining after federal, state, and private aid are applied. Its Blue and Gold Opportunity Program covers tuition and fees for students from families with incomes of up to $80,000

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.[23] 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.[24] 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 credits, and has noted that a fee increase to $60 per credit ($1800 per year full-time) would be fully reimbursed through the American Opportunity Tax Credit for students with up to $160,000 in family income. Revenue from tuition provides only 10% of educational revenues for California's community colleges compared to 31% nationally – contributing mightily to inadequate funding levels.[25] A tuition increase could provide significant additional revenues without eroding affordability, thereby increasing student access to classes and services. One indication of the growing pressure to collect more tuition revenue is AB515 (Brownley), sponsored by two community college districts. The bill would allow colleges to charge full cost for credit courses through the extension mechanism that is designed for specialized programs – in effect using extension as a way around political resistance to a more reasonable fee policy, with serious implications for two-tiered access to the colleges.

Potential additional fee increases and financial aid cuts for 2011-12 could harm affordability

California's 2011-12 budget has tuition/fee increases of 18% at UC and 23% at CSU and an increase in the per-credit fee at CCC to $36. Further threats to affordability are likely as the budget agreement involves a trigger for further cuts if budgeted gains in tax revenues fail to materialize, which may result in additional tuition increases. The Legislative Analyst's Office was recently asked to identify additional budget cuts that could close the state's budget deficit (beyond those already approved) in the event that Governor Brown's proposal to extend some temporary tax increases was not approved.[26] Among the options LAO identified were further increases in tuition at UC and at CSU, and an increase to $66 per credit at the CCC. Proposals for cuts to financial aid included a 5% cut to institutional grant programs at UC and CSU and cuts to the Cal Grant program through lowering the income limit for eligibility, raising the minimum grade point average, and limiting the competitive grants to a stipend only. As noted by the LAO, "reductions of this magnitude would negatively affect the availability and cost of educational opportunities for students."[27]

Resources *(see Appendix 4)*

LAO, *Higher Education Affordability; The 2011-12 Budget: California Community College Fees*

CSHE, *Re-Imagining California Higher Education*

TICAS, *After the FAFSA: How Red Tape Can Prevent Eligible Students from Receiving Financial Aid*

(providing assistance to those who don't qualify for tuition grants under Cal Grant) and defrays other educational expenses for some students. In addition, the program covers tuition *increases* for students with family incomes up to $120,000.

- Institutional aid programs at UC and CSU have been increasing the number and size of their awards in recent years, as they are funded in part from increasing tuition revenues.
- Community college students have likely been the most detrimentally affected by rising costs of college attendance. There is no institutional aid program (beyond fee waivers) in the community colleges like there is for UC and CSU to supplement Cal Grants and Pell Grants. Furthermore, CCC students are more dependent on the competitive Cal Grants because eligibility for the entitlement grants is limited to recent high school graduates, and much greater proportions of CCC students are of non-traditional college age. Figure 12 shows how the fixed number of *competitive* Cal Grants has accounted for sharply diminishing shares of eligible students receiving such grants.

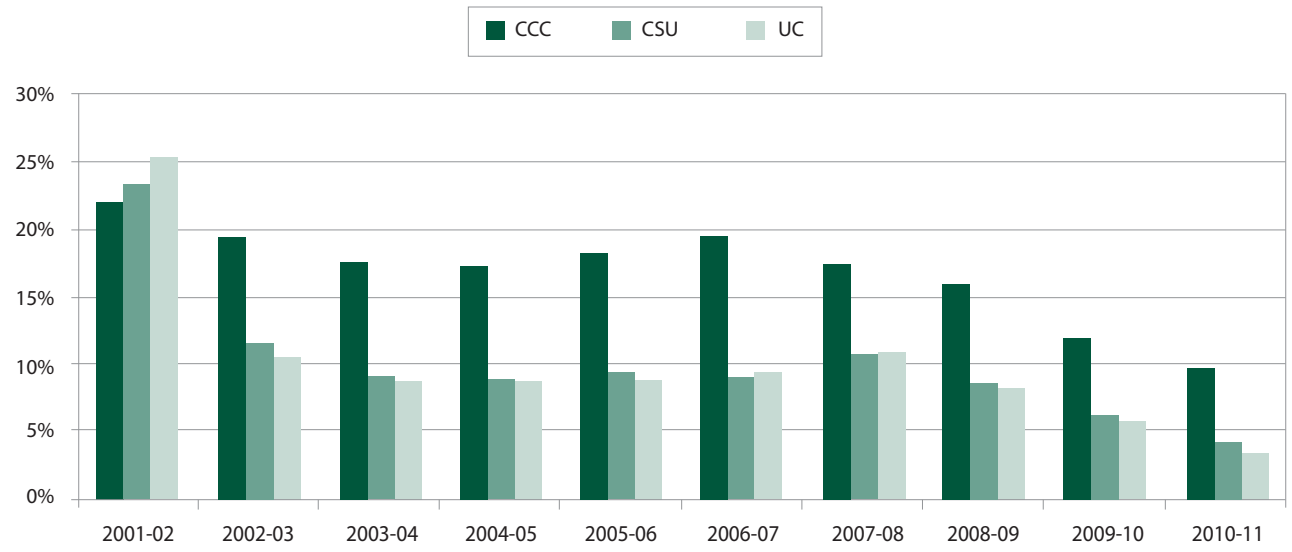
Performance Trends

While most states have increased tuition/fees substantially in recent years, California's increases have exceeded the national average rate of increase (Table 3).

The average total tuition and fees paid by resident undergraduate students at UC and CSU increased substantially over the last decade. Tuition/fees increased from $3,859 in 2001-02 to $11,279 in 2010-11 at UC, and will increase to $13,218 in 2011-12. At CSU, they increased from $1,876 to $5,285, with a scheduled increase to $6,422 in 2011-12. The national average for tuition in public four-year institutions was $7,605 in 2010-11.

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. Despite a scheduled increase to $36 per unit in 2011-12, fees in the community colleges would remain the lowest in the nation, and would be less than half (40%) the current national average.

Figure 12
Share of Students Eligible for Competitive Cal Grant Who Received a Grant



Source: California Student Aid Commission, *Facts at Your Fingertips: Competitive Cal Grant Program* reports for 2001-02 through 2010-11

Table 2
Non-Tuition/Fees as a Share of Total Cost of Attendance at a Public College or University in California

	UC	CSU	CCC
Expenses Excluding Tuition/Fees (off-campus housing)	$16,578	$16,578	$16,578
2010-11 Tuition/Fees	$11,279	$5,285	$780
Total	$27,857	$21,863	$17,358
Non-Tuition/Fees Share of Total Cost	60%	76%	96%

Source: California Student Aid Commission, *Proposed 2010-11 Student Budget*, and California Postsecondary Education Commission, *Resident Undergraduate Fees in Actual Dollars*

Table 3
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
2001-02	$3,859	$1,876	$3,766	$330	$1,608
2002-03	$4,017	$2,005	$4,098	$330	$1,674
2003-04	$5,530	$2,572	$4,645	$540	$1,909
2004-05	$6,312	$2,916	$5,126	$780	$2,079
2005-06	$6,802	$3,164	$5,492	$780	$2,182
2006-07	$6,852	$3,199	$5,804	$600	$2,266
2007-08	$7,517	$3,521	$6,191	$600	$2,294
2008-09	$8,027	$3,849	$6,591	$600	$2,372
2009-10	$9,311	$4,893	$7,050	$780	$2,558
2010-11	$11,279	$5,285	$7,605	$780	$2,713
2011-12	$13,218	$6,422	NA	$1,080	NA
Total Increase	242%	243%	102%	227%	69%
Average Annual Increase	13.4%	13.5%	8.1%	15.3%	6.0%

1 Includes the systemwide tuition and the average campus-based fees (excluding health insurance fees which can be waived)
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*, at http://www.cpec.ca.gov/FiscalData/FeesOptions.asp. Figures for the national average were obtained from The College Board's *Trends in College Pricing* reports (http://www.collegeboard.com/html/costs/pricing/)

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.

As with affordability, the NCHEMS measures of participation are from 2008 and 2009, before the worst impact of the recession on higher education. According to those measures, participation rates in California are better than in most states. The state ranks 6th in the percent of 18-24 year olds enrolled in college and a large share of students enroll in college within one year of graduating high school. However, California ranks towards the middle of states in the number of first-time postsecondary enrollments as a share of the number of 9th graders four years earlier. The discrepancy between 9th graders chance for college and the high participation rate for young adults is likely explained by California's lower high school graduation rate. The participation rate among working-age adult students is also higher than in other states, although the low fees at community colleges likely encourage more enrollment of adults for personal interest rather than pursuit of credentials or other workforce-related purposes than is the case in other states. It is likely, however, that California's position on participation rates has declined because the budget cuts have diminished the state's higher education capacity.

Key Findings: Regional Differences

- The percent of 18- to 24-year-olds enrolled in college varies substantially across regions (Table 4). The rate is over 50% in the Central Coast, the Upper Sacramento Valley, and Orange County,[28] but is less than 30% in the South San Joaquin Valley and the Inyo-Mono region.

- The percent of adults age 25 and older enrolled in college varies less across regions, ranging from three to six percent. Within the regions, however, the participation rates for this age group are lower in counties where residents lack easy access to a community college, with rates of less than three percent in Amador, Colusa, Mariposa, Modoc, Mono, Sierra, and Tuolumne Counties.

- The participation rates in Table 4 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 17% to 31%, but the location of CSU Chico and its 16,000 students in Butte County raises the overall rate for the region to 54%.

- The college-going rate directly from high school varies from a low of 40% in the Monterey Bay and Inyo-Mono to a high of 70% in the Central Coast (Figure 13). A 9th grader in the Inyo-Mono region has a 26% chance of enrolling in college within four years, while the chance is 56% for 9th graders in the Central Coast.

Table 4
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	56%	4.7%
Upper Sacramento Valley	54%	5.6%
Orange County	52%	5.7%
San Francisco Bay	49%	5.7%
Sacramento-Tahoe	48%	6.2%
Monterey Bay	45%	5.3%
San Diego/Imperial	44%	6.1%
Los Angeles County	43%	5.5%
North Coast	41%	4.5%
Inland Empire	36%	5.4%
North San Joaquin Valley	35%	4.9%
Superior California	34%	4.6%
South San Joaquin Valley	27%	4.4%
Inyo-Mono	22%	3.4%

Source: Author calculations based on data from the Census Bureau's 2009 American Community Survey (ACS), except as specified in endnote 28.

Key Issues in Participation

State's budget problems are reducing college access

Declines in participation are likely related to budget cuts in higher education rather than lower interest in attending college. According to recent polls, Californians continue to place a high value on college, and are even more likely than people nationwide to say college is very important for achieving economic success.[29] Generally, college enrollment increases during a recession, especially in community colleges, as high unemployment makes college attendance more attractive than entering the workforce and people enroll to re-train or upgrade their skills to be more marketable to employers.[30] However, budget-related enrollment cuts, along with tuition increases, have made college attendance more difficult. UC has tightened admissions requirements to some campuses and increased admission of out-of-state students, who are charged three times the tuition of state residents. More California students are being denied admission to their preferred institution and redirected to lower-demand campuses or placed on waiting lists. CSU is designating an increasing number of programs and campuses as "impacted" and increasing admissions criteria, with some CSU-eligible students being left without access to even their local CSU. The CCC are open access institutions, and achieve enrollment reductions primarily by reducing course offerings; they offered 38,000 fewer course sections in 2009-10 than in the previous year.

State leaders need to be more strategic about rationing access to postsecondary education

With budget constraints limiting access to public higher education, the state's leaders should ensure that this rationing is done in a way that is best aligned with state goals. For the community colleges, on which the state relies to ensure broad access, this points to the need to protect the three core missions -- basic skills (remedial), transfer, and career technical education. A fourth area – enrollment in courses for personal interest – must be a lower priority in today's constrained fiscal environment and with the urgent need to increase education levels. Promoting life-long learning is a valuable service to local communities, but with college access being rationed by the shrinking availability of classes, we should not expect (perhaps not allow) the colleges to enroll well educated adults in highly-subsidized courses when those subsidies could be used to support those students who seek a college credential or workforce-related training. Community colleges can preserve their stature as valuable community resources by providing access to lifelong learning through extension mechanisms.

CCC should reconceive its access mission around programs, not courses

The community colleges offer a wide array of programs, yet offer limited support to help students choose from among what can be an overwhelming number of options.[31] The colleges generally do not organize their instructional offerings around a coherent set of programs with a sequence of classes that students can clearly access as they progress through a roadmap of certificate or degree requirements. The access mission seems to be conceived around accessing courses, rather than accessing programs. Class schedules are typically based on historical patterns of student demand, faculty availability, and relative class costs. Budget cuts are more likely to be addressed by cutting low-enrolled courses than eliminating low-enrolled or low-performing programs. In most cases, students do not declare majors and colleges do not track student progress within programs. Advising students is too often based on what courses fit their schedules rather than what they need to fulfill program requirements. Reconceiving the access mission around programs, not just courses, could have tremendous advantages as students would not spend time and money on classes they don't need or want and those classes would be available for students who do need them. Colleges could optimize the class schedule around a set of programs and provide access for more students.

Resources *(see Appendix 4)*

PPIC, *Higher Education in California: New Goals for the Master Plan*

CSHE, *Beyond the Master Plan: The Case for Restructuring Baccalaureate Education in California*

CCRC, *Get with the Program: Accelerating Community College Students' Entry Into and Completion of Programs of Study; The Shapeless River: Does a Lack of Structure Inhibit Student Progress at Community Colleges?*

LAO, *The Master Plan at 50: Guaranteed Regional Access Needed for State Universities; The 2011-12 Budget: Prioritizing Course Enrollment at the Community Colleges*

How is California Performing?
Participation

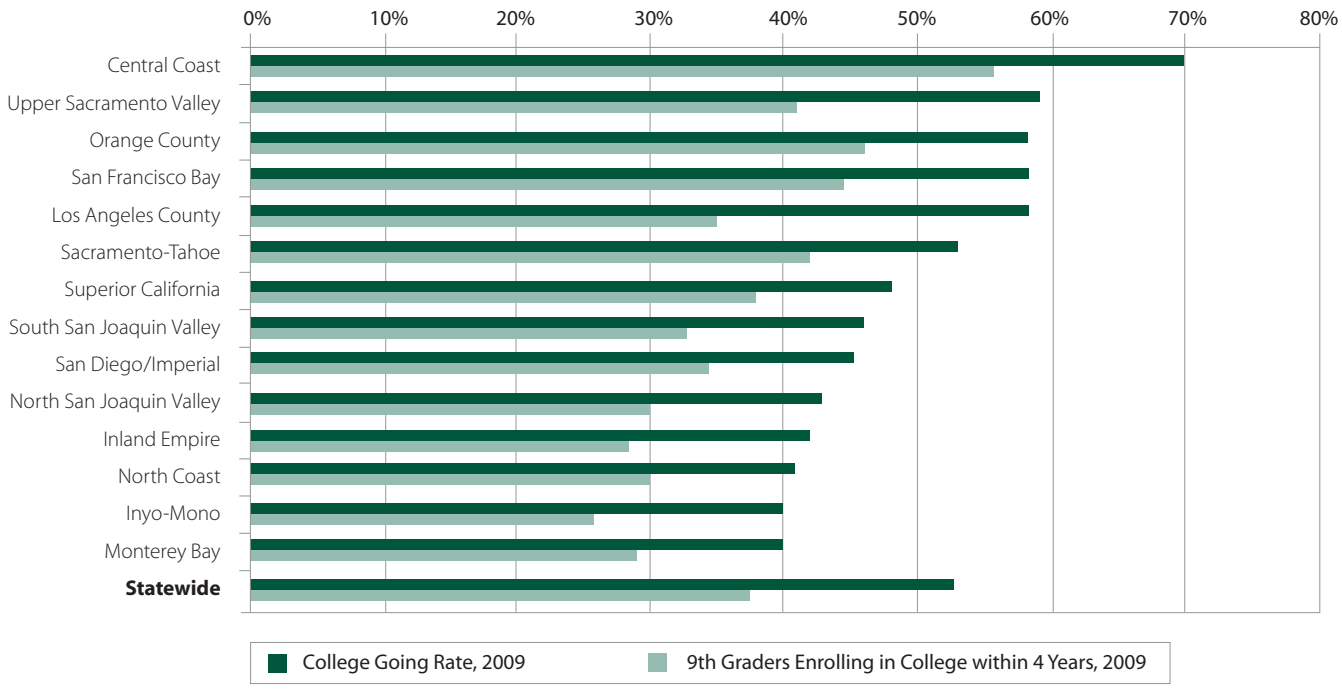
Key Findings: Racial/Ethnic Differences

- Among Asian high school graduates, 67% go directly to college, a rate substantially higher than for other racial/ethnic groups (Figure 14).[32]
- 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

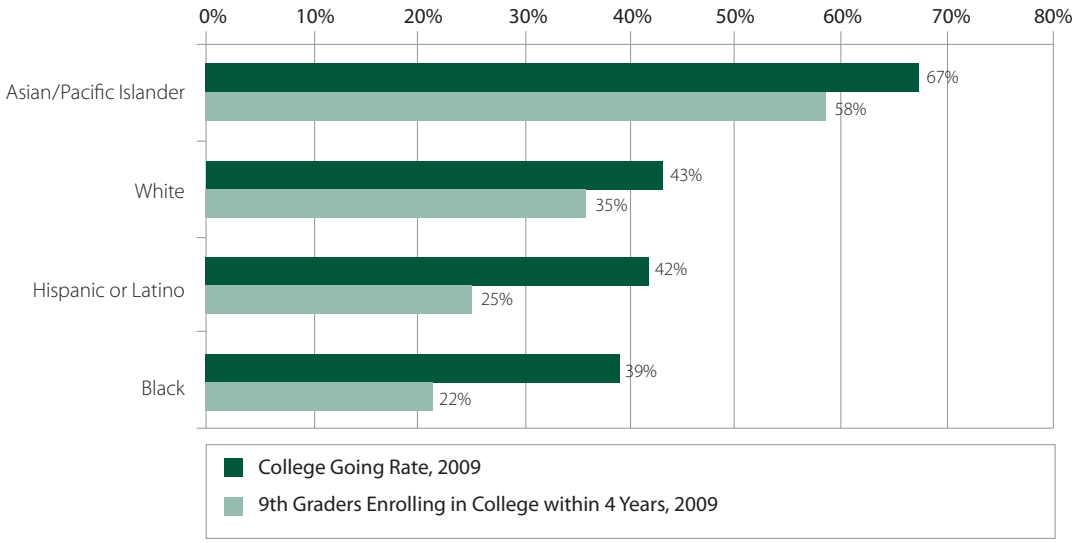
- The college-going rate of high school graduates increased between 2003 and 2007, but declined in 2009 (Figure 15), a pattern seen among all racial/ethnic groups. The decline in participation was greater for black students than for other groups, although that might simply reflect the smaller number of black students in California compared to the other groups, which increases the volatility of measuring changes over time (note that their increase in participation in the prior years was also greater).[33]
- 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 the California Postsecondary Education Commission, the 2009 college-going rate was lower than at any time in the last 25 years.[34]
- The change in college-going rates varied across regions. The rate increased between 2003 and 2009 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 13
Direct College-Going Rates by Region



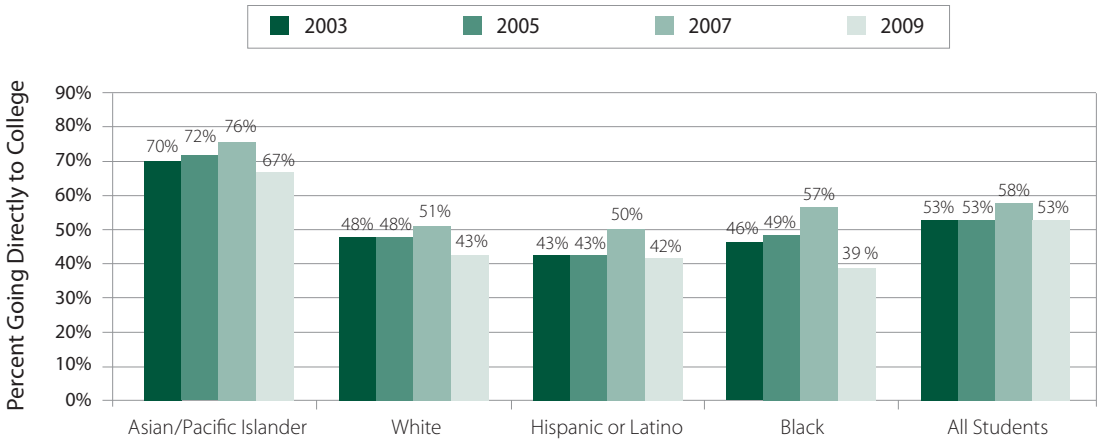
Source: Author calculations based on data from the California Department of Education and the California Postsecondary Education Commission

Figure 14
Direct College-Going Rates by Race/Ethnicity



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

Figure 15
Trend in Direct College-Going Rate



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

How is California Performing?
Completion

Completion: Average

- \+ California has the 4th highest retention rate of first time freshmen.
- \+ The graduation rate for full-time, first-time students in four- and two-year colleges is better than in most states.
- \+ The state ranks 12th on the number of associate degrees awarded per 100 HS grads three years earlier.
- +/- The state ranked 26th in the transition rate and completion rates from 9th grade to college.
- – The number of degrees/credentials produced per 100 undergraduates is lower than most states.
- – The state ranks 41st on the number of bachelor's degrees awarded per 100 HS grads 6 years earlier.

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 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

- 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).
- 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 generally do so without earning an associate degree. Also, local job markets vary, with some having more need 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.
- There is no clear relationship between performance on the two measures: regions that rank relatively high on awarding bachelor's degrees are not the same as those that rank high on awarding associate degrees.

Key Findings: Racial/Ethnic Differences

- The number of BA degrees awarded per 100 undergraduates enrolled in UC and CSU is highest for white students (24.9) and lowest for Latino students (16.8) (Figure 17).
- The number of certificates and degrees awarded by community colleges per 100 undergraduates enrolled is also highest for white students (10.5) and lowest for Latino students (7.8).

Key Issues in Completion

Growing recognition of the need to increase college completion; bold actions needed

The national focus on college completion has taken hold in California. CSU has initiated an effort to increase the graduation rate to be in the top quartile nationally among similar institutions. The CCC Board of Governors has appointed a Student Success Task Force to develop recommendations to increase completion and the Community College League of California has set ambitious goals for more certificates and degrees.[35] This commitment to increasing completion is important, and must be matched by bold actions toward reform at the state, system, and college levels. An approach that relies solely on sharing "best practices" or trying to scale up small programs is not going to affect enough students to move the needle on completion.

New transfer degree should increase completion; implementation is critical

The new associate degrees for transfer (Chapter 428, Statutes of 2010) should increase the number of associate degrees awarded by the CCC and bachelor's degrees awarded by the CSU, which will see more and better prepared transfer students. While the legislation strives for statewide consistency in transfer requirements, it only authorizes each of the 112 colleges to develop a set of degrees for transfer, meaning that each college could develop its own version of, for example, an associate degree for transfer in Economics. If that happened, the goal to achieve statewide patterns to promote timely and efficient transfer would be thwarted and the incentives for students to follow that transfer pathway would be reduced. The CCC Academic Senate is attempting to develop a single definition for each transfer degree and encourage all colleges to use it, but disagreements about the amount of specificity in a field that best serves students threaten to lead to regional variations - an outcome less likely to maximize degree completion.

Need more emphasis on sub-baccalaureate credentials

National research finds significant economic benefit for certain sub-baccalaureate credentials,[36] suggesting that well-designed CTE programs could contribute much towards better outcomes for students and the economy. Yet the CTE mission of the CCC appears to be an under-valued part of the system. Student interest is high, with about 30% of course enrollments in vocational courses, but very few certificates and vocational associate degrees are awarded relative to enrollments. The huge variety of loosely-structured programs and the lack of dedicated counselors to help students identify CTE programs of interest make it hard for students to find their way into and through career programs. The variability across seemingly similar programs in credit and programmatic requirements makes it hard for employers to understand the content and value of credentials. Some students and faculty believe these credentials are not valued by employers, but if certificates and degrees were designed so as to send clear signals about the skills and competencies of the students who earn them, employers would likely value them, as is the case in other states where sub-baccalaureate credentials are more highly valued and better supported.

Measuring progress toward completion (milestones) can help target changes in policy and practice

To dramatically increase college completion, the state and its institutions need better data to guide changes in policy and practice. Data on student progress in meeting intermediate milestones on the pathway to college completion can be part of efforts to help policymakers understand whether state goals are being met, and can offer opportunities for using finance policies to create incentives for student progress. Colleges can use data on students' enrollment and academic patterns, by race/ethnicity, to better understand any problems revealed in student progress and to make changes in policy and practice.

Credential quality needs attention given the fixation on completions, but difficult to measure

Policymakers and education leaders must keep issues of quality at the forefront of the effort to improve college completion. The interests of students and the state will be compromised if, in pursuit of numbers, we lose sight of quality. We need *high-quality* certificates and degrees that reflect rigorous standards and have real value in the marketplace. While it is difficult to define and measure quality, reforms to help more students complete must be made in the context of maintaining standards and quality. With large number of students entering college unprepared, innovative changes to developmental education and improvements in K-12 college readiness efforts are critical to increasing completion without sacrificing quality.

Resources *(see Appendix 4)*

IHELP, *The Road Less Traveled; Advancing by Degrees; Taking the Next Step: The Promise of Intermediate Measures for Meeting Postsecondary Completion Goals;*

Completion by Design, *Completion by Design Concept Paper*

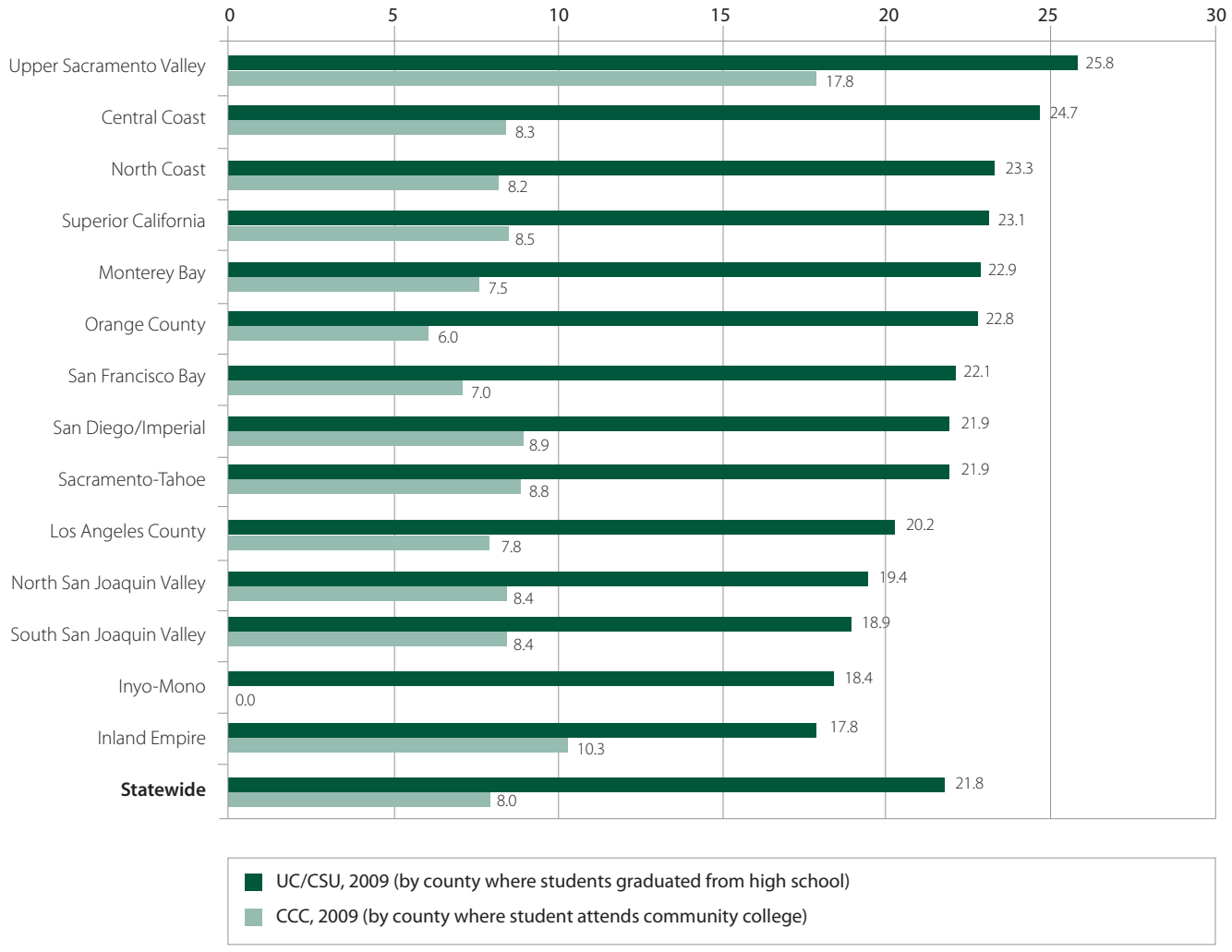
Indiana Commission for Higher Education, *Reaching Higher with College Completion: Moving from Access to Success*

How is California Performing?
Completion

Performance Trends

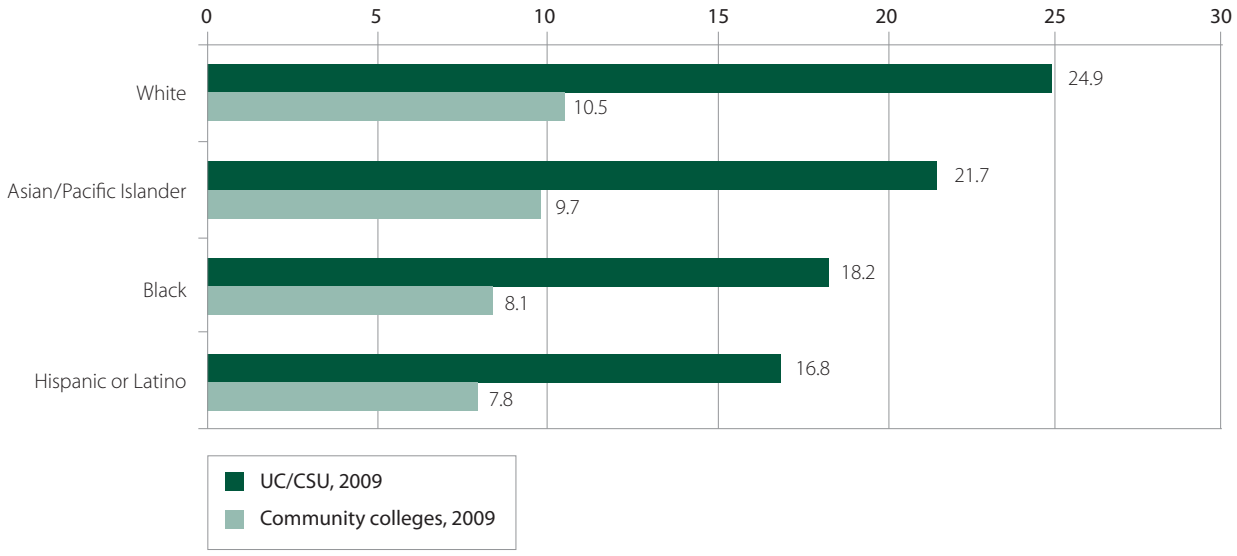
- The number of certificates and degrees awarded per 100 students enrolled in the community colleges remained relatively stable between 2003 and 2009 (Figure 18). It increased by a small amount for white, Asian and Latino students, but not for black students.
- The number of bachelor's degrees awarded per 100 undergraduates enrolled in UC/CSU also remained fairly stable. It increased by a small amount for white and Asian students but decreased slightly for Latino students.
- There has been no consistent improvement in the racial/ethnic gaps in completion.
- Degrees awarded per 100 undergraduates enrolled have fluctuated in most regions, with no regions having a consistent increase or decrease between 2003 and 2009 across the community colleges and the university systems.

Figure 16
Certificates and Degrees Awarded per 100 Undergraduates Enrolled by Region



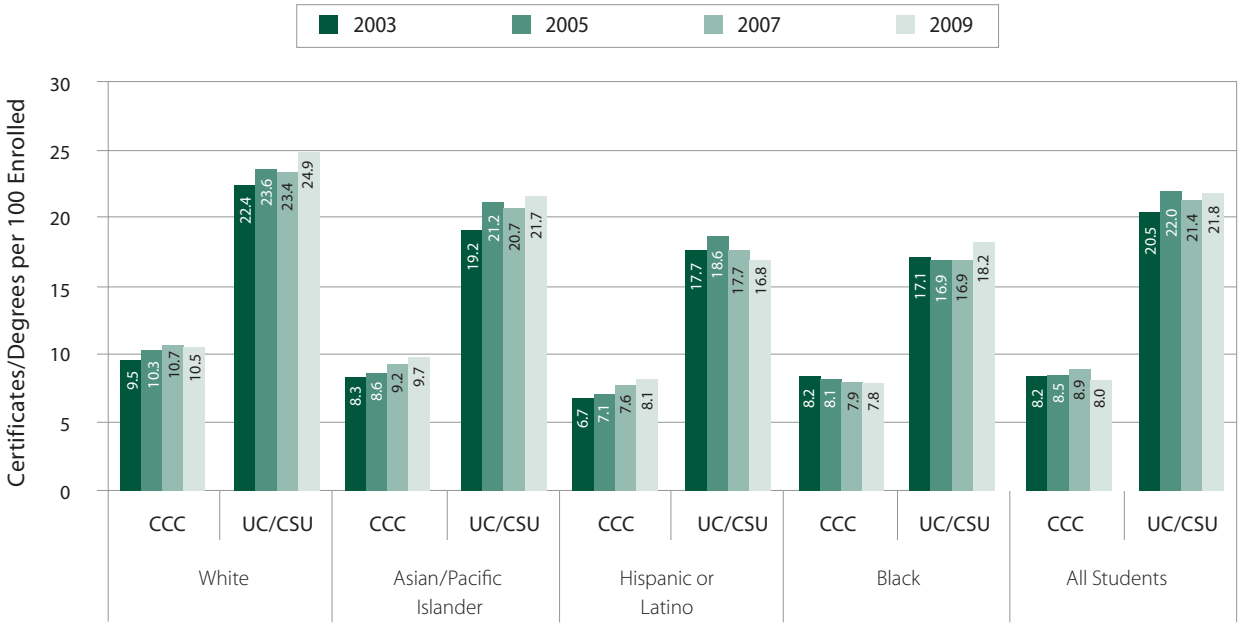
Source: Author calculations based on data from the California Postsecondary Education Commission. There are no community colleges located in the Inyo-Mono region.

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



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

Figure 18
Trends in Number of Certificates and Degrees Awarded per 100 Undergraduates Enrolled



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

How is California Performing?

Benefits

Benefits: Average

+ In California, associate and bachelor's degree holders earn the highest wage premium over high school graduates.
+ The state has the seventh highest per capita personal income.
+ The state ranked 15th in the percentage of the population age 45-64 with a bachelor's degree.
+/- The state ranked 20th and 21st in the percent of the population age 25-34 and age 35-44, respectively, with a bachelor's degree.
– The state ranks 42nd in the share of the eligible population voting.

Higher education levels are associated with broad economic and civic benefits including higher earnings, lower rates of incarceration and use of social programs, and higher rates of voting, volunteering, and making charitable donations.[37] Overall, California has average benefits related to higher education. The share of the working-age population with a bachelor's degree is higher than in many states but the state performs less well on this measure for younger cohorts; the state ranks 15th in the percentage of the population age 45-64 with a bachelor's degree but slips to 20th among 25-34 year olds and 21st among 35-44 year olds.

The economic benefits associated with higher education are greater in California than the civic benefits. The state ranks 7th in per capita personal income and the earnings advantages of having an associate or bachelor's degree compared to a high school diploma are greater than in any other state. In contrast, the state ranks 23rd in the share of itemizers that declare charitable gifts and Californians are less likely to vote than those in 41 other states.

Key Findings: Regional Differences

- Educational attainment levels vary across the state. Forty-three percent of adults between the ages of 25 and 64 in the San Francisco Bay area have at least a bachelor's degree, more than three times the share of adults with that level of education in the South San Joaquin Valley (Figure 19).[38]
- Generally, the coastal and urban areas of the state have higher educational attainment levels than those found in the rural and central regions. This is likely due to several factors including greater access to the numerous colleges and universities located in those areas and the needs of local job markets, as the urban and coastal regions are home to more of the state's high-skill industries.
- 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, 47% of Asians and 39% of whites have at least a bachelor's degree. The figures for black and Latino adults are 21% and 10%, respectively (Figure 20).[39]
- Differences in education levels are highly correlated with differences in per capita income across racial/ethnic populations.[40] 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 remained fairly stable over the last several years at around 30% (Figure 21).
- The substantial disparities in educational attainment across racial/ethnic populations have not diminished (Figure 21).
- Educational attainment levels have remained fairly stable in all regions over the last several years, so the disparities across regions remain unchanged.

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.[41]

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.[42] 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.[43]

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 from higher education. Changing fiscal circumstances have led most states to reexamine the balance of public and private benefits and either decide or rationalize that since students gain financially from a college education they should pay more for it. These conditions have also put a premium on examining educational outcomes from the perspective of workforce needs. Most students today enter college primarily to advance their career opportunities.[44] Employers locate where well-trained and educated workers are most abundant. Colleges and universities extol their contributions to the state's workforce. Lawmakers expect institutions to offer high-quality programs that align with workforce needs. Faculty and others who voice objections to the "marketization" of academia are dismissed by some as yearning for a bygone era. But if California finds the means to engage more thoughtfully in strategic thinking about higher education, it would be important that those discussions address expectations about civic health as well as economic health. As the state becomes more diverse and more preoccupied with fiscal survival – of families and institutions – the potential of its colleges and universities to provide benefits to those beyond its classrooms should not be ignored.

Resources *(see Appendix 4)*

IHELP, *Divided We Fail; Technical Difficulties*

NCPPHE, *Good Policy, Good Practice II: Improving Outcomes and Reducing Costs in Higher Education: A Guide for Policymakers*

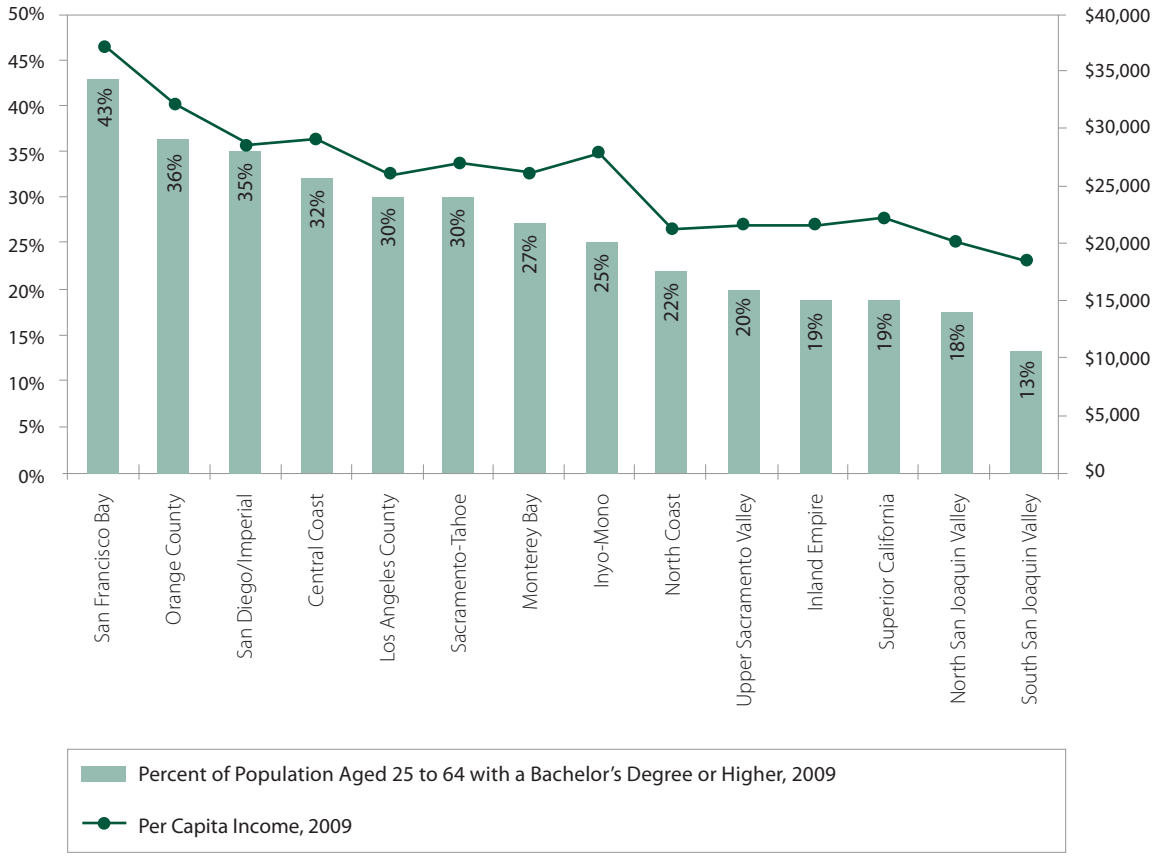
LAO, *The Master Plan at 50: Greater than the Sum of Its Parts – Coordinating Higher Education in California*

PPIC, *California's Future Workforce: Will there be Enough College Graduates?*

Tennessee Higher Education Commission, *The Public Agenda for Tennessee Higher Education 2010-2015*

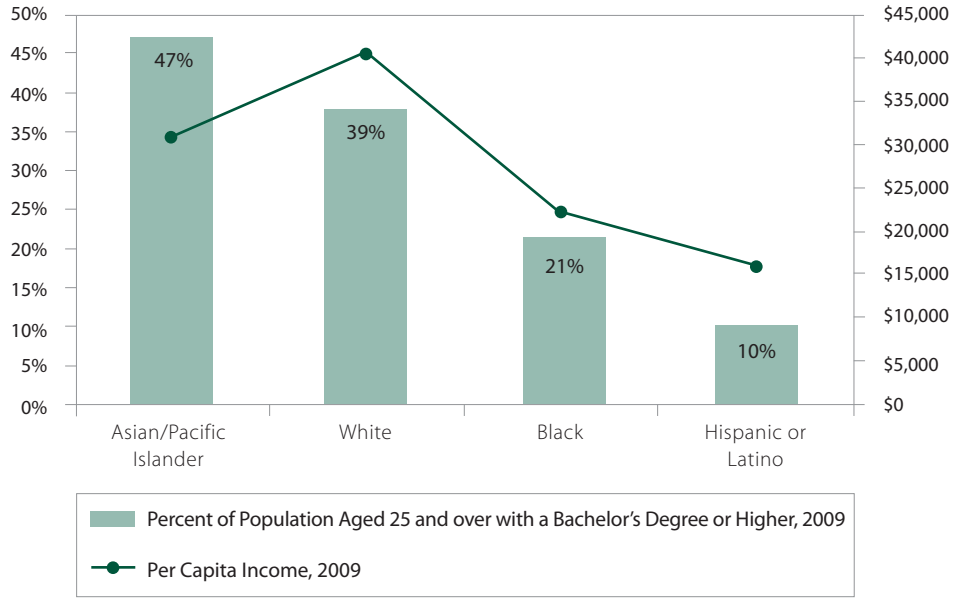
Illinois Board of Higher Education, *The Illinois Public Agenda for College and Career Success*

Figure 19
Educational Attainment and Per Capita Income by Region



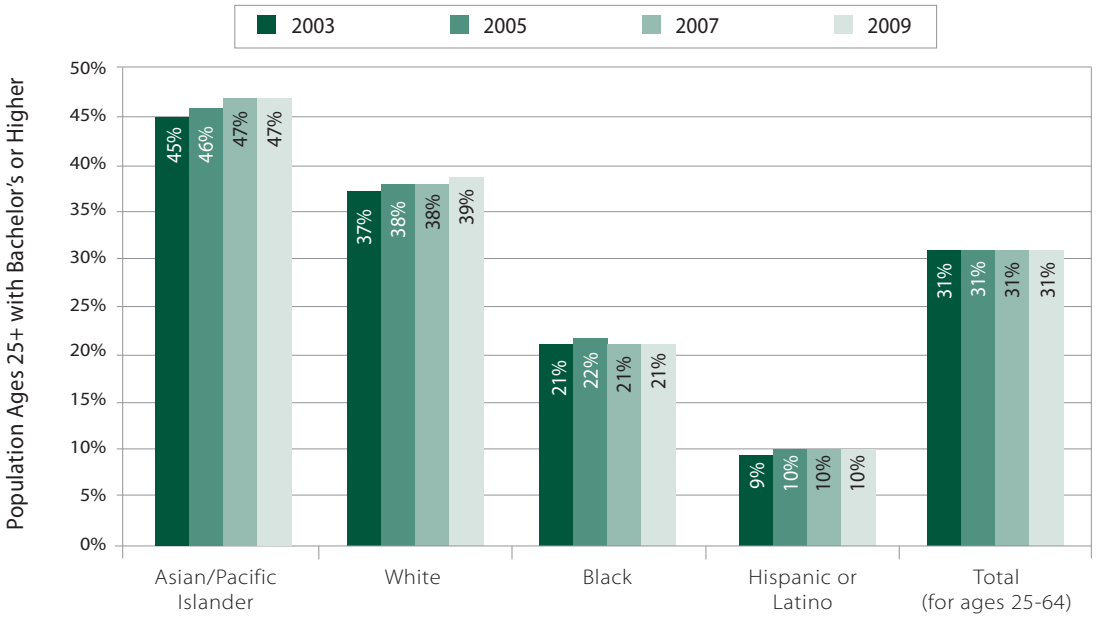
Source: Author calculations based on data from Census Bureau, American Community Survey 2009, Table B15002 (for educational attainment) and Tables B19313 and B03002 (for per capita income), except as noted in endnote 38

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
Trends 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.

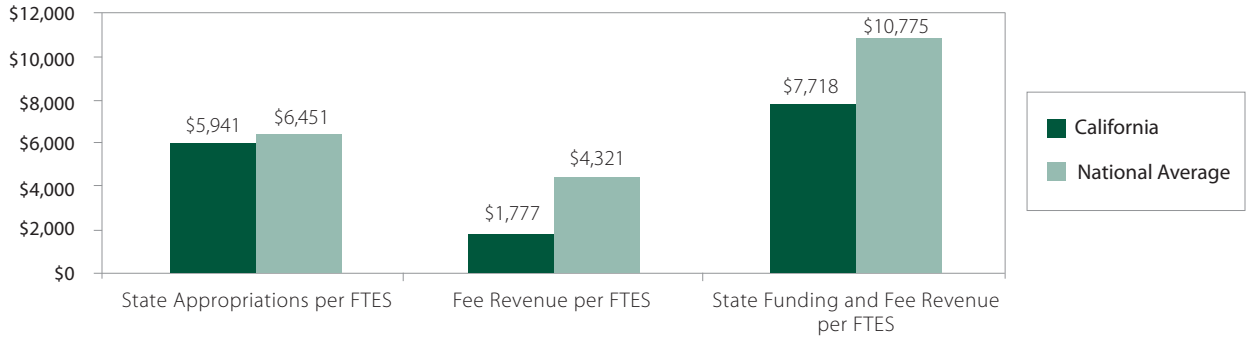
– The state ranks at the bottom in total revenues per full-time equivalent student.

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 *total* 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.[45] Compounding the below-average appropriations, California collects considerably lower amounts of tuition revenue per student than the national average, ranking 50th among the states in the tuition/fees charged for enrollment in a community college.[46] Due to the recent major increases in tuition at UC and CSU, California now ranks 25th in the tuition and fees charged for attending public 4-year institutions, up from 38th three years ago but still below the national average. Total revenues generated from tuition and fees per FTES in California were $1,777 in 2010, less than half the national average of $4,321. The combination of state appropriations and fee revenues

Figure 22
Funding for Higher Education, 2010



Source: State Higher Education Executive Officers, *State Higher Education Finance FY 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.[47] 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.[48]

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 *addition* 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 *(see Appendix 4)*

IHELP, *Performance Incentives to Improve Community College Completion: Learning from Washington State's Student Achievement Initiative; Concerns About Performance Funding and Ways that States are Addressing the Concerns*

LAO, *The Master Plan at 50: Connecting Financing with Statewide Goals for Higher Education*

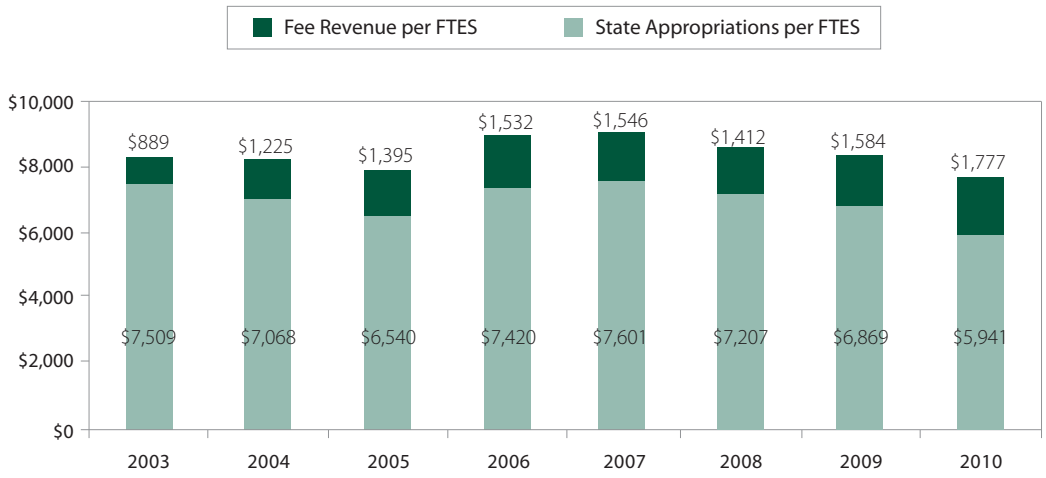
Delta Cost Project, *Trends in College Spending, 1998-2008*

results in total funding per FTES that is substantially below the national average. Combined revenues in California of $7,718 per FTES are $3,000 below the national average of $10,775, and are the lowest among the 50 states, down from $8,583 and 49th place in 2008. In California, 23% of total funding per FTES is generated through student fees, while the national average is 40%.

Performance Trends

- After adjusting for inflation, total funding per FTES for higher education was about 8% lower in 2010 than in 2003 (Figure 23). Compared to 2007, 2010 total funding was nearly 16% lower, amounting to a loss of more than $1,400 per FTES.
- State and local appropriations have been declining since 2007 after adjusting for inflation. Increases in net fee revenue (after adjusting for state financial aid and fee waivers) have not made up for cuts in appropriations, leading to the decrease in total funding.

Figure 23
Trends in Higher Education Funding per FTES (in 2010 dollars)



Source: State Higher Education Executive Officers (SHEEO), *State Higher Education Finance* reports for 2005 - 2010. 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 from the California Department of Industrial Relations.

Summary and Conclusions

The data presented do not paint a pretty picture. The California that many like to think of as a leader in higher education is average at best and trending in the wrong direction. This troublesome performance is *not* for lack of commitment and effort by faculty and staff at California's colleges and universities. Rather, it reflects lack of coordinated attention by the state's policy leadership. California is living proof that leading institutions can coexist within struggling state systems of higher education. It is also living proof that the absence of vision and of proactive *policy* leadership can reduce investments in, and returns from, higher education and diminish prospects for an entire state.

Performance, as documented in this report, is mostly average with respect to other states and is declining in many key measures including college-going rates – an alarming trend in view of the need for more Californians to earn college credentials. Furthermore, the mostly average performance masks significant performance gaps across regions and racial/ethnic groups that are mostly not improving.

A host of policy issues are ripe to address – as identified in each of the six sections of this report. Some of these will require a re-ordering of state priorities (and accompanying investments) as an infusion of resources is needed to provide more affordable access to postsecondary education. But a review of the "Key Issues" pages reveals a number of items where significant progress could be made without major financial investments. With vision, coordination, policy leadership, political will, and an unrelenting focus on student success, we could see solid improvements in K-16 curriculum alignment, career pathway structures, community college fee policy, and data collection and use, to cite a few examples.

Two overriding conclusions are inescapable from the data we present and the issues that await attention.

- California's future prosperity rests on its ability to dramatically improve outcomes for those populations and regions that seriously lag the rest of the state. Performance gaps are well documented here and have been documented by others, but are not likely to be closed until they become a more visible state priority with far more publicity and accountability for ensuring equitable opportunities for access to colleges and universities that are equipped for and committed to student success.

Category	Current Performance	7-year Trend
Preparation	Worse than most states	↑
Affordability	Average	↓
Participation	Better than most states	↓
Completion	Average	↔
Benefits	Average	↔
Finance	Average	↓

- Mechanisms to develop a vision across all segments of postsecondary education and to develop the policies to achieve the vision must be found. The Governor's recent action to eliminate the California Postsecondary Education Commission (CPEC) was an acknowledgement that effective coordination has been lacking. But having nothing take its place is a step in the wrong direction. Other states are taking far more proactive and intentional steps to improve postsecondary performance, such as joining *Complete College America*, building integrated data systems, developing strategic plans, changing the incentives in their finance policies, and adopting statewide accountability plans that speak to vital state goals. Such steps require a level of coordination that we do not have. California must regain the purposeful approach to higher education that it modeled over fifty years ago with the Master Plan for Higher Education.

Times are indeed tough for higher education across the country. But this report shows that other states are finding ways to out-perform California. California may have more challenges than many states, but it also has more resources and more potential than many and a tradition of great success on which to draw. California must, and can, do better.

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.[49] 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.[50]

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 *Measuring Up* report, which were "determined by existing research documenting the significance of these variables as a measure of category performance."[51] 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. 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	Worst 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 ranking of average and a rank score of 3. The weight for this measure was approximately .22, meaning that this measure accounted for 22% of the total index score. Multiplying California's ranks score of 3 by the weight gives a weighted score of .67. The sum of all of the weighted scores for this performance area is 3.8 which translates into better than average performance for the index overall.

Table A1
Weights for Performance Measures

Measure	Weight
Preparation	
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
Affordability	
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
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 (2008)	.200
Completion (80%) *NCHEMS 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
Benefits	
Educational Achievement (37.5%)	
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
Economic Benefits (31.25%)	
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
Civic Benefits (31.25%)	
Charitable Giving - Percent of Itemizers on Federal Tax Returns Declaring Charitable Gifts (2005)	.156
Percent of the Eligible Population Voting (2006)	.156
Finance	
Per student funding (50%)	
State and local support per FTES (2008)	.250
Total revenues (appropriations + tuition) per FTES (2008)	.250
State higher education financing emphasis (50%)	
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

NCHEMS Measure (most recent year)	CA Figure	Highest	75th Percentile	Median	25th Percentile	Lowest	Ranking	Rank Score	Weight	Weighted Rank Score
Young Adults (66.67%)										
9th graders chance for college within 4 years (2008)	44%	60%	48 %	44%	41%	26%	Average	3.0	0.22	0.67
Percent of 18-24 year olds enrolled in college (2009)	41%	53%	38%	35%	33%	19%	Better	4.0	0.22	0.89
Direct college-going rate (2008)	65%	77%	67%	63%	59%	46%	Better	4.0	0.22	0.89
Working-Age Adult (33.33%)										
Enrollment of 25-49 year olds as share of 25-49 yr olds with no BA (2009)	8%	10%	7%	6%	5%	4%	Better	4.0	0.33	1.32
Index Rank Score	3.8									
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, 2010
   Denominator: total number of 8th grade students taking the test, 2010

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, 2010
   Denominator: total number of 8th grade students taking the tests, 2010

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

   Source: California Department of Education on-line Dataquest (not available by race/ethnicity)
   Calculation:
   Numerator: Number of students scoring a 3 or greater on an AP test, 2008-09
   Denominator: Total enrollment in 11th and 12th grade, 2008-09
   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, 2008-09
   Denominator: Total 12th grade enrollment, 2008-09
   Result multiplied by 1,000

5. Enrollment in Chemistry/Physics as a Share of 11th-12th Grade Enrollment

   Source: California Department of Education on-line Dataquest
   Calculation:
   Numerator: Number of students enrolled in 1st year chemistry + number enrolled in 1st year physics, 2008-09
   Denominator: Total enrollment in 11th and 12th grade, 2008-09

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 Advanced Math, 2008-09
   Denominator: Total enrollment in 11th and 12th grade, 2008-09

7. Share of 8th Graders taking Algebra

   Source: California Department of Education on-line Dataquest
   Calculation:
   Numerator: Number of 8th grade students taking the Algebra I California Standards Test, 2010
   Denominator: Total enrollment in 8th grade, 2009-10

8. 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, 2008-09
   Denominator: Total number of high school graduates, 2008-09

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

   Source: California State University Chancellor's Office website for EAP results
   Calculation:
   Numerator: Number of juniors scoring "ready for college" on English exam, 2010
   Denominator: Total number of juniors tested on EAP exam for English, 2010

10. 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, 2010
    Denominator: Total number of juniors tested on EAP exam for math, 2010

Participation

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

   Source: US Census, American Community Survey 2009, Table B14004 (for counties where ACS 2009 data were not available we

used data from ACS 2005-09 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 2009, Table B14004 (for counties where ACS 2009 data were not available we used data from ACS 2005-09 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 California Postsecondary Education Commission on-line data
   Calculation:
   Numerator: Number of first-time freshmen ages 19 and under enrolled in public institutions (program type=regular) Fall 2009 + number of first-time freshmen ages 19 and under enrolled in private institutions Fall 2008
   Denominator: Total number of high school graduates, 2008-09.

   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 California Postsecondary Education Commission on-line data
   Calculation:
   Step 1: High School Completion Rate
   Numerator: Number of high school graduates 2008-09
   Denominator: Number of 9th graders in 2005-06
   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: California Postsecondary Education Commission on-line data
   Calculation:
   Numerator: Number of bachelor's degrees awarded at UC and CSU, 2009
   Denominator: Total undergraduate enrollment at UC and CSU, fall 2009

   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: California Postsecondary Education Commission on-line data
   Calculation:
   Numerator: Total number of certificates and degrees awarded at community colleges, 2009
   Denominator: Total enrollment at community colleges (excluding high school students and students already possessing a BA), 2009

   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 only gather information on the high school attended for recent high school graduates, and not for the many older students who attend those institutions and earn certificates and degrees. 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 2009, Table B15001 (data for counties not represented in the ACS 2009 files were gather from the ACS 2005-09 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 2009, 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 2009, Tables B19313 and B03002 (for the analysis by region, income data for counties not represented in the ACS 2009 files were gathered from the ACS 2005-09 5-Year Estimates)
   Calculation:
   Numerator: Aggregate income
   Denominator: Total population

Appendix 4

Resources for More Information on Key Issues and Recommendations

1. California Community Colleges Chancellor's Office reports related to CCC Assess available at http://cccassess.org/project-documents

   CCCAssess: Centralizing Student Assessment in the California Community Colleges (2011)

2. Center for Studies in Higher Education reports available at http://cshe.berkeley.edu/publications/index.php

   Re-Imagining California Higher Education (2010)

   Beyond the Master Plan: The Case for Restructuring Baccalaureate Education in California (2010)

3. Community College Research Center reports available at http://ccrc.tc.columbia.edu/ContentByType.asp?t=1

   Get with the Program: Accelerating Community College Students' Entry Into and Completion of Programs of Study (2011)

   The Shapeless River: Does a Lack of Structure Inhibit Students' Progress at Community Colleges? (2011)

4. Completion by Design reports available at http://www.completionbydesign.org/

   Completion by Design Concept Paper (2010)

5. Delta Cost Project reports available at http://www.deltacostproject.org/analyses/delta_reports.asp

   Trends in College Spending, 1998-2008 (2010)

6. Harvard Graduate School of Education report available at http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperity_Feb2011.pdf

   Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century (2011)

7. Illinois Board of Higher Education reports available at http://www.ibhe.state.il.us/masterPlanning/default.htm

   The Illinois Public Agenda for College and Career Success (2008)

8. Indiana Commission for Higher Education reports available at http://www.in.gov/che/index.htm

   Reaching Higher with College Completion: Moving from Access to Success (2008)

9. Institute for Higher Education Leadership & Policy reports available at www.csus.edu/ihe/publications

   Performance Incentives to Improve Community College Completion: Learning from Washington State's Student Achievement Initiative (2011)

   Concerns about Performance Funding and Ways that States are Addressing the Concerns (2011)

   The Road Less Traveled: Realizing the Potential of Career Technical Education in the California Community Colleges (2011)

   Taking the Next Step: The Promise of Intermediate Measures for Meeting Postsecondary Completion Goals (2010)

   Divided We Fail: Improving Completion and Closing Racial Gaps in California's Community Colleges (2010)

   Advancing by Degrees: A Framework for Increasing College Completion (2010)

   Technical Difficulties: Meeting California's Workforce Needs in Science, Technology, Engineering, and Math (STEM) Fields (2009)

10. Jobs for the Future reports available at http://www.jff.org/publications

    Setting Up Success in Developmental Education: How State Policy Can Help Community Colleges Improve Student Outcomes (2009)

11. Legislative Analyst's Office reports available at www.lao.ca.gov/laoapp/search.aspx

    Higher Education Affordability (2011)

    The 2011-12 Budget: California Community College Fees (2011)

    The Master Plan at 50: Guaranteed Regional Access Needed for State Universities (2011)

    The 2011-12 Budget: Prioritizing Course Enrollment at the Community Colleges (2011)

    The Master Plan at 50: Connecting Financing with Statewide Goals for Higher Education (2010)

    The Master Plan at 50: Greater than the Sum of Its Parts – Coordinating Higher Education in California (2010)

12. National Center for Public Policy and Higher Education reports available at www.highereducation.org/reports/reports.shtml

Beyond the Rhetoric: Improving College Readiness through Coherent State Policy (2010)

Good Policy, Good Practice II: Improving Outcomes and Reducing Costs in Higher Education: A Guide for Policymakers (2010)

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

Pathways Out of Poverty for Vulnerable Californians: Policies that Prepare the Workforce for Middle-Skill Infrastructure Jobs (2010)

14. Public Policy Institute of California reports available at www.ppic.org/main/pubs.asp

Higher Education in California: New Goals for the Master Plan (2010)

California's Future Workforce: Will there be Enough College Graduates? (2008)

15. Tennessee Higher Education Commission report available at http://www.tn.gov/thec/complete_college_tn/ccta_files/master_plan/The%20Public%20Agenda%20with%20Appendices%20Jan2011.PDF

The Public Agenda for Tennessee Higher Education 2010-2015 (2010)

16. The Institute for College Access and Success reports available at www.ticas.org/pub.php

After the FAFSA: How Red Tape Can Prevent Eligible Students from Receiving Financial Aid (2010)

17. WestEd reports available at http://www.wested.org/cs/we/query/q/1781

One Shot Deal? Students' Perceptions of Assessment and Course Placement in California's Community Colleges (2010)

Endnotes

1 See www.highereducation.org

2 The three earlier reports, *The Grades are In 2008*, *The Grades are In 2006*, and *The Grades are In 2004*, are available at www.csus.edu/ihe.

3 The data were gathered by the National Center for Higher Education Management Systems' (NCHEMS) Information Center for Higher Education Policymaking and Analysis, and primarily represent each state's performance on a particular measure as of 2008 or 2009.

4 See www.higheredinfo.org

5 See Appendix 1 for a description of how California's performance was calculated using the NCHEMS data.

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

7 See Appendix 3 for a description of specific data sources and methods for our analyses.

8 Students who are determined to be "ready – conditional" in math can enroll in college-level math without further assessment testing if they successfully complete an approved math course during their senior year in high school.

9 ACT (2010). *The alignment of common core and ACT's College and Career Readiness System.* Iowa City, IA: Author; Vasavada, N., Carman, E., Hart, B., & Luisier, D. (2010). *Common core state standards alignment: ReadiStep, PSAT/NMSQT, and SAT.* New York: The College Board.

10 EdSource (2010). *California and the "common core": Will there be a new debate about K-12 standards?* Mountain View, CA: Author.

11 Conley, D.T. (2011). *Designing common assessments to be measures of college and career readiness: Challenges and opportunities.* Eugene, OR: Educational Policy Improvement Center.

12 Williams, T., Haertel, E., Kirst, M.W., Rosin, M., & Perry, M. (2011). *Preparation, placement, proficiency: Improving middle grades math performance.* Mountain View, CA: EdSource.

13 Waterman, S. (2010). *Pathways report: Dead ends and wrong turns on the path through algebra.* Palo Alto, CA: Noyce Foundation.

14 Rubin, V., Lizardo, R., Jamdar, A., Washington, J., & Zeno, A. (2010). *Pathways out of poverty for vulnerable Californians: Policies that prepare the workforce for middle-skill infrastructure jobs*. Oakland, CA: PolicyLink.

15 Bosworth, B. (2010). *Certificates count: An analysis of sub-baccalaureate certificates*. Washington, DC: Complete College America.

16 California Community Colleges Chancellor's Office (2011). *CCCAssess: Centralizing student assessment in the California Community Colleges*. Sacramento, CA: Author.

17 See http://www.cccco.edu/Default.aspx?tabid=1610 for updates on the colleges accepting EAP results.

18 Perry, M., Bahr, P.R., Rosin, M., & Woodward, K.M. (2010). *Course-taking patterns, policies, and practices in developmental education in the California Community Colleges.* Mountain View, CA: EdSource; Bailey, T. (2008). *Challenge and opportunity: Rethinking the role and function of developmental education in community college* (Working Paper No. 14). New York: Columbia University, Teachers College, Community College Research Center.

19 Edgecombe, N. (2011). *Accelerating the academic achievement of students referred to developmental education* (Working Paper No. 30). New York: Columbia University, Teachers College, Community College Research Center.

20 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.

21 Public Policy Institute of California (2010). *PPIC statewide survey: Californians and higher education*. San Francisco: Author.

22 While the statewide fees are the same across campuses, each college or university may charge somewhat different amounts in campus fees for health services, instructional materials, student centers, etc.

23 See CSU Executive Order 1054 dated January 14, 2011 at http://www.calstate.edu/eo/EO-1054.html and UC Board of Regents action amending Regents policy 3101 dated November 18, 2010 at http://www.universityofcalifornia.edu/regents/aar/novj.pdf

24 Based on the student expense budget for 2010-11 estimated by the California Student Aid Commission, the $780 fee for attending CCC full time represents approximately 7% of the total budget for students living with their parents, and less than 5% for students living on their own.

25 Desrochers, D.M., Lenihan, C.M., & Wellman, J.V. (2010). *Trends in College Spending 1998-2008*. Washington, DC: Delta Cost Project.

26 Legislative Analyst's Office (2011). *Review of budget reduction options for higher education*. Sacramento, CA: Author.

27 p. 5 of the LAO memo

28 The 2009 American Community Survey includes county-level data for 40 of California's 58 counties (those where no data are available are rural counties with relatively small populations). For the other 18 counties, we used data from the ACS 2005-09 5-year estimates. The overall participation rate for the state is unaffected by the use of the multi-year file for these counties.

29 PPIC, 2010

30 Kantrowitz, M. (2010). *Countercyclicality of college enrollment trends*. Cranberry Township, PA: FinAid Page; Higa, F.B. (2010). *Community college enrollment and the 2007-2009 financial crisis*. Unpublished manuscript, Department of Economics, Brown University, Providence, RI; Dellas, H. & Sakellaris, P. (2003). On the cyclicality of schooling: Theory and evidence. *Oxford Economic Papers, 55*(1), 148-172.

31 Scott-Clayton, J. (2011). *The shapeless river: Does a lack of structure inhibit students' progress at community colleges?* New York: Columbia University, Teachers College, Community College Research Center.

32 This measure is based on data from the California Postsecondary Education Commission (CPEC) and the California Department of Education (see Appendix 3 for a description of the calculation). The data do not account for enrollment in out-of-state institutions or in some private institutions that do not report enrollment data to CPEC. To the extent that some groups of students may be more likely to attend these private or out-of-state institutions, this would affect the differences in college-going rates across groups. Also, a growing share

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 Vision: A Report of the Commission on the Future of the Community College League of California*. Sacramento, CA: Community College League of California.

36 Bosworth 2010; Jacobsen, L. & Mokher, C. (2009). *Pathways to boosting the earnings of low-income students by increasing their educational attainment.* Washington, DC: Hudson Institute Center for Employment Policy and CNA Analysis and Solutions; Bailey, T., Kienzl, G, & Marcotte, D. (2004). *The return to a sub-baccalaureate education: The effects of schooling, credentials and program of study on economic outcomes*. Washington, DC: U.S. Department of Education.

37 Baum, S., Ma, J., & Payea, K. (2010). *Education Pays 2010: The Benefits of Higher Education for Individuals and Society.* New York: The College Board; Bloom, D.E., Hartley, M., & Rosovsky, H. (2006). Beyond private gain: The public benefits of higher education. In Forest, J. F. & Altbach, P.G. (Eds.), *International Handbook of Higher Education*, 18 (1), 293-308.

38 Data for 18 counties were not available in the 2009 American Community Survey, so we used educational attainment data from the ACS 2005-2009 5-year estimates. Using the multi-year file for small, rural counties did not affect the statewide estimate of educational attainment or income.

39 The educational attainment data by race/ethnicity in Figure 20 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 19. This is due to the way data were available in the American Community Survey summary tables.

40 The income in figure 20 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.

41 See californiacompetes.org.

42 Reed, D. (2008). *California's future workforce: Will there be enough college graduates?* San Francisco: Public Policy Institute of California.

43 California Department of Finance (2007, July). *Race/Ethnic Population with Age and Sex Detail, 2000-2050.* Sacramento, CA: Author.

44 Pryor, J. H., Hurtado, S., DeAngelo, L., Palucki Blake, L., & Tran, S. (2010). *The American freshman: National norms for fall 2010.* Los Angeles, CA: University of California Los Angeles, Higher Education Research Institute.

45 State Higher Education Executive Officers (2011). *State higher education finance FY 2010.* Boulder, CO: SHEEO. This 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.

46 The rankings reflect data on tuition/fees by state and type of institution for 2009-10 as reported by the US Department of Education in the *Digest of Education Statistics 2010*, Table 346. According to the table, California had tuition/fees of $719 for public 2-year institutions, compared to a national average of $2,285. California had tuition/fees of $6,240 for public 4-year institutions compared to a national average of $6,695. The 4-year average is calculated in a way that prevents strict comparisons across like institutions. The average combines institutions in the UC and CSU systems, so the lower fees at the much-larger CSU system lowers the average.

47 Legislative Analyst's Office (2011). *Overview of Proposition 98 Budget.* Sacramento, CA: Author.

48 Information on the Delta Project on Postsecondary Costs, Productivity, and Accountability can be found at www.deltacostproject.org. IHELP plans to release a report that uses Delta project data later in 2011.

49 http://www.higheredinfo.org/

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

51 National Center for Public Policy and Higher Education (2008). Technical Guide for *Measuring Up 2008: Documenting Methodology, Indicators, and Data Sources*. San Jose, CA: Author.

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