



Improving Equity: Increasing Baccalaureate Attainment of Underrepresented Students in California

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About College Futures Foundation Higher Education Finance Forum

There is a growing consensus in California about the need to increase access and degree attainment among this generation of California residents—but there is no comparable consensus about how to pay for it. College Futures Foundation is sponsoring the **Higher Education Finance Forum** to provide a neutral, analytically grounded discussion about how to pay for California's public higher education goals.

Current funding trends present one of the biggest barriers to increasing resident student access and baccalaureate degree completion. The Forum's goal is to develop a realistic framework for examining California public higher education finance that both defines the problem *and* identifies options to address it. The Forum will host four invitational conversations among a small group of experts in state budgeting, public higher education finance, demographic trends, social equity, and other facets of the topic. The Forum will synthesize a summary of the proceedings and white papers at the conclusion of the planned work, toward the end of 2016. College Futures Foundation and Forum leadership will then decide whether to transition the conversation into a larger public arena.

College Futures Foundation is a private foundation working statewide to improve baccalaureate degree attainment among California students who are low-income and underrepresented in higher education. College Futures operates on the beliefs that a vibrant future for our state requires more bachelor's degrees, and that every qualified student in California who wishes to should have the opportunity to succeed in college.

Established in 2005, the Foundation supports work in three areas: ensuring successful student transitions along the degree completion pathway; enabling cross-sector, intersegmental, and regional partnerships to drive improvements in bachelor's degree completion; and addressing gaps between policy and practice needed to increase college access and success.

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Executive Summary

This paper focuses an empirical lens on the volume of change needed to eliminate gaps in baccalaureate achievement rates affecting California's underrepresented minority groups.

Low-income and first-generation college students—most of whom come from racial or ethnic groups that have historically been underrepresented in higher education—are the face of California's future. Although they now are the majority of high school graduates, their baccalaureate attainment rates are only one-third of those achieved by White and Asian students. The changing economy and the surge of expected retirements among older professionals mean that California faces a looming shortage of more than 1 million BA degrees.

Recent increases in enrollment and degree completion among historically underrepresented groups are not happening fast enough to keep pace with population changes. At the same time, opportunities for resident Californians have fallen victim to budget cuts, and these reductions in access have disproportionately hurt underrepresented students. We are not making good on the promise of California's Master Plan for Higher Education: that qualified students who wish to can access a viable pathway to and through higher education and toward the opportunities it provides.

California can turn this educational deficit around: eliminating the baccalaureate attainment gap among younger adults aged 25-34 will require an estimated 730,000 additional degrees awarded to Latino, African American, Native American, and Alaskan Native students by 2025—a full 73,000 additional degrees per year above and beyond current annual completion rates for underrepresented minority students. The problem cannot be solved exclusively by improving degree production at California State University and the University of California. Policymakers and educators must address disparities across the educational continuum—from high school graduation rates to community college transfers through baccalaureate institutions.

Failure to address these gaps would worsen growing economic and racial stratification in California, with BA attainment as the dividing line between haves and have-nots.

Low-income and first-generation college students are the face of California's future, but are increasingly underrepresented in higher education in the state.

Definition of terms

Underrepresented minorities: For purposes of this conversation, underrepresented minorities (URM) are defined as students who identify themselves as Hispanic or Latino, African American, Native American, and Alaskan Native, and those who identify as belonging to two or more races. These students historically have been underrepresented in higher education compared to their share of total population.

Participation rates: Participation rates mean the rate or proportion of a particular age group that is enrolled in college. Participation rates are measured by both enrollment and Census data.

Attainment rates: Attainment rates are the proportion of the relevant age cohort that has obtained a degree or certificate from a postsecondary educational institution.

Equity gaps: Equity gaps are the differences in levels of baccalaureate attainment between underrepresented groups and Whites.

Equity goals could also be benchmarked against the racial composition of recent high school graduates, or the age cohort, including students who have not completed high school. If we were to use either of these alternate ways to define goals for closing attainment gaps, all of the estimates in this paper would increase substantially.

Improving Equity: Increasing Baccalaureate Attainment of Underrepresented Students in California

California has built an enormous public higher education enterprise to fulfill the promise made in the 1960 Master Plan for Higher Education: that all qualified students who could benefit (and sought to enroll) would be provided access to the state's public colleges and universities. That Master Plan has been the touchstone for higher education policy in California for more than half a century.

The promise of the Master Plan is at risk, however, as opportunities for access and degree completion are eroding in the face of continued fiscal crises that result in rising prices and fewer opportunities for California resident students. The current trends are particularly troubling in light of California's changing demography and the growing number of low-income and first-generation students, most of whom come from racial or ethnic groups that historically have been underrepresented in higher education. Although these groups remain minorities in higher education, they now comprise the majority of young people in the state. If California policymakers and higher education leaders are not able to increase access and degree attainment among these groups, the state will face a future of growing economic stratification and inequality, with the dividing line between the haves and the have-nots increasingly dictated by educational achievement.

Changes in the economy and the growing retirement of baby boomers now in the workforce will result in a shortfall of nearly 1.1 million baccalaureate (BA) degrees by 2025, according to the Public Policy Institute of California. While multiple strategies will be needed to reach that level of performance, the single most important key to increasing degree attainment among Californians will lie in educational practices that reduce and ultimately eliminate racial and ethnic gaps in degree attainment.

This paper focuses an empirical lens on BA attainment gaps affecting underrepresented students in the state. While our interest is in BA degree attainment among young people, improvements in BA production of the magnitude needed in California cannot be accomplished exclusively by improving performance within the four-year sector. To begin to close equity gaps, improvements will be needed all along the educational pipeline en route to the baccalaureate, beginning with high school graduation and extending through college access, retention, and degree completion.

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Equity Gaps in BA Degree Attainment among 25-34 Year Olds

Currently in California, underrepresented students between the ages of 25-34 have lower postsecondary educational attainment than Whites and Asians. As [Table 1](#) shows, 32 percent of young White Californians now have a BA degree compared to

only 11 percent for underrepresented minorities. To reach parity in BA attainment (without suppressing existing levels of White and Asian attainment), California will need to triple Bachelor's attainment rates among the URM population.

While historically underrepresented minority students represent about one-half of the high school graduates, they represent only 46 percent of first-time undergraduates, 43 percent of Associate degree graduates, and 28 percent of total Bachelor's degree graduates. [Table 2](#) and [Figure 1](#) show the substantial differences in completion rates for Whites and Asians on the one hand, and underrepresented

minorities on the other, that are happening broadly throughout the higher education landscape.

Table 1

Educational Attainment of Whites, Asians, and Underrepresented Minorities (URM) Aged 25-34

Level of education	Whites	Asians	URM*
Less than high school	4%	4%	27%
High school graduate or GED	17%	11%	28%
Some college, no degree	26%	18%	24%
Associate's degree	9%	8%	6%
Bachelor's degree	32%	39%	11%
Graduate or professional degree	12%	20%	3%

* URM includes African American, Hispanic, American Indian, and Alaskan Native students.

Source: U.S. Census Bureau, 2011-13 American Community Survey (ACS) Public Use Microdata Sample (PUMS) File.

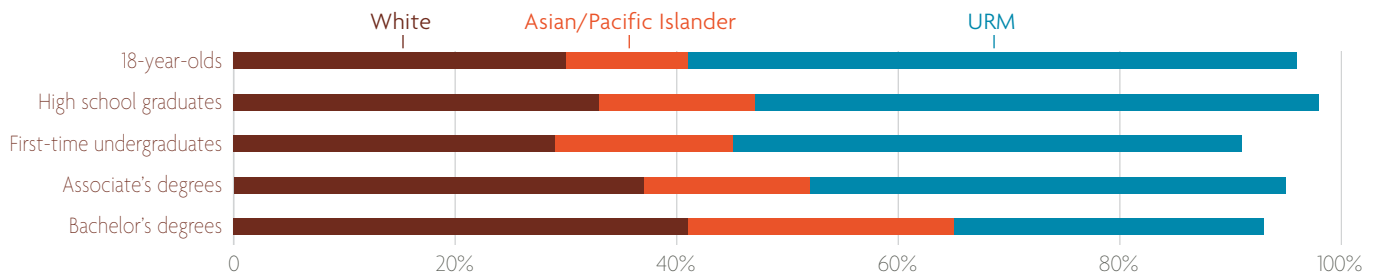
Table 2

Current Access and Degree Production, 2013

	Number of students			Percent of total	
	White and Asian	URM*	Total	White and Asian	URM*
High school graduates	178,700	183,000	361,700	49%	51%
FTE enrollments (undergraduate)					
CCC	496,933	579,100	1,116,151	45%	52%
CSU	168,530	166,968	358,336	47%	47%
UC	122,216	66,197	195,079	63%	34%
Community college transfers					
CSU	21,170	20,051	44,236	48%	45%
UC	9,525	5,191	15,236	63%	34%
Baccalaureate degrees awarded					
CSU	43,000	31,227	81,803	53%	38%
UC	33,321	13,107	48,946	68%	27%
Privates	26,966	17,253	49,843	54%	35%

* In this table, URM includes African American, Non-Hispanic, American Indian or Alaska Native, Two or More Races, and Nonresident Alien students. Total also includes students whose race or ethnicity is unknown.

Sources: NCES, IPEDS 2012-13 Unduplicated Headcount Enrollment File, Fall 2012 Enrollment File and IPEDS 2012-13 Completions File.

Figure 1**Racial/Ethnic Representation at Each Stage of the Education Pipeline, 2012**

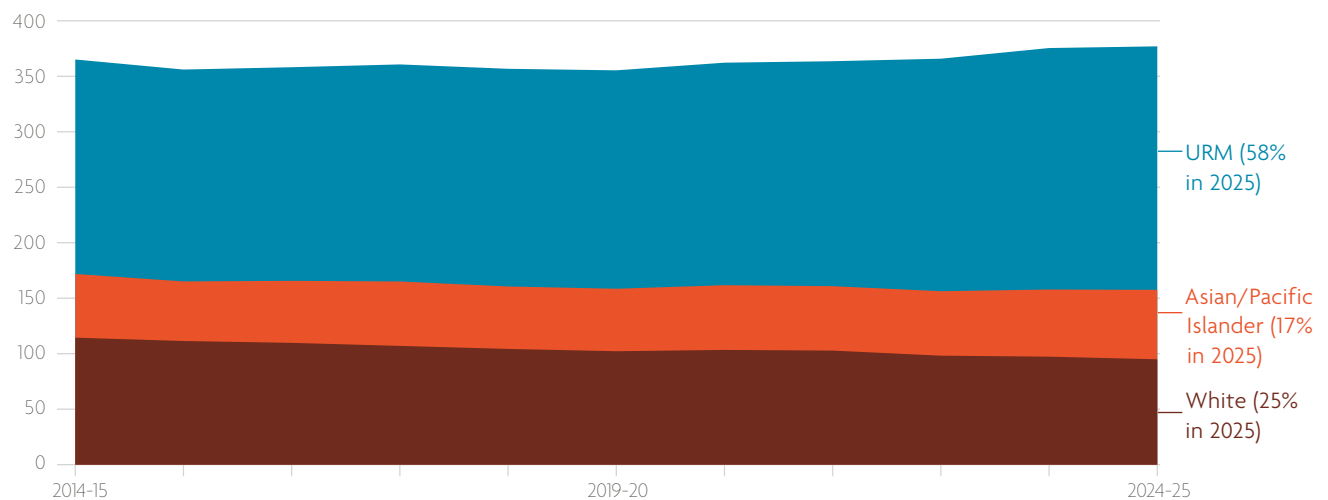
Source: U.S. Census Bureau State Population Estimates by Race, Age, Sex, and Hispanic Origin, July 1, 2013 (2012 Estimates Extracted).

Need to Improve the Rate of URM Degree Attainment

To close attainment gaps, California needs to increase the absolute rate of underrepresented minority student achievement, not just increase the number of URM students enrolling in or even finishing college. California is already experiencing demographic change—and it will accelerate over the next 10 years. Projections of high school graduates for the next 10 years show that Whites will comprise a decreasing share of the population while the share of underrepresented minority students will continue to grow. By 2025, as can be seen in **Figure 2**, 58 percent of high school graduates will be URM students and only 25 percent will be White. Ensuring that these high school graduates go on to college and succeed in obtaining a degree is crucial if California is to improve educational attainment of the population.

Figure 2**Changes in Racial Makeup of California High School Graduates, 2015-2025**

Projected number of public high school graduates, in thousands



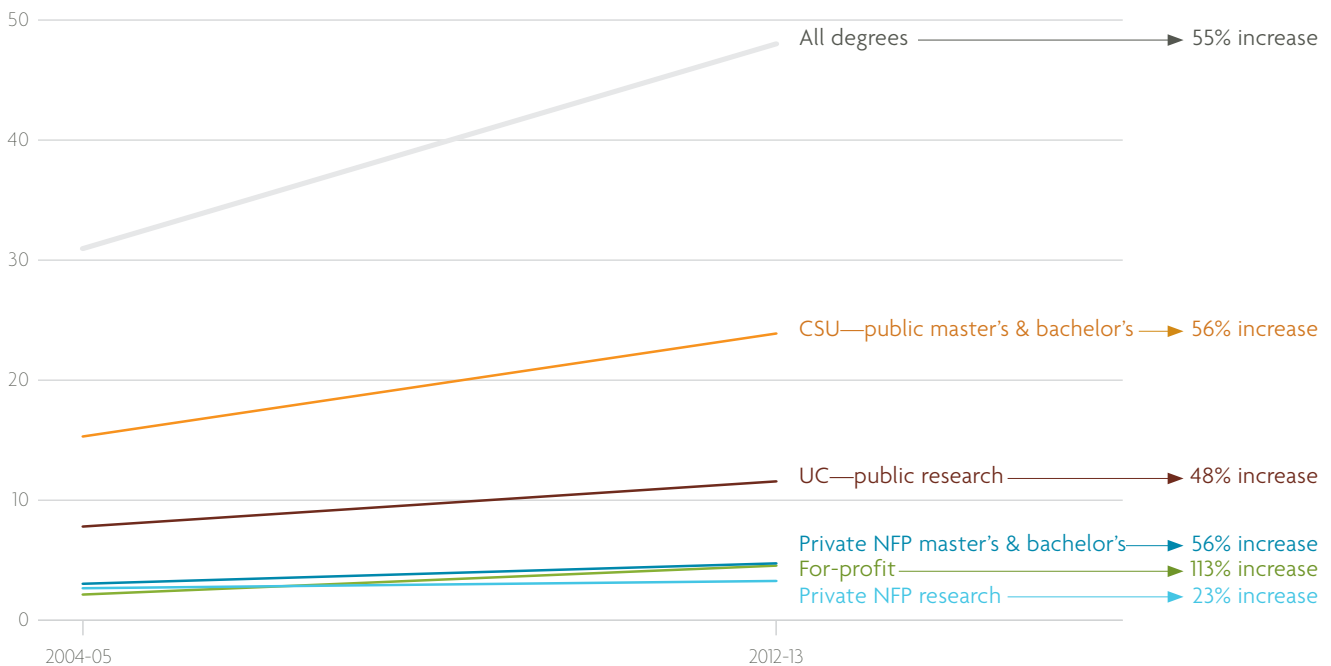
Source: Western Interstate Commission for Higher Education, *Knocking at the College Door*, 2014.

The recent experience in California has been that underrepresented minority student enrollments and degree production have increased, but not as rapidly as White enrollments and degree production, and not at a pace sufficient to keep up with the population changes. As **Figure 3** shows, the number of degrees awarded to underrepresented minority students increased by 55 percent between 2005 and 2013. Despite this, URM BA degrees as a share of total BA degrees only increased by 6 percent. As a result, the attainment gaps have grown despite increases in enrollments and degrees among URM students. Because the URM student population is increasing, their attainment rates will continue to decline unless BA completion improves at much faster rates than in the past.

Figure 3

Bachelor's Degrees Awarded to Underrepresented Minorities by Sector, 2005 and 2013

Number of degrees awarded to URM, in thousands



Source: NCHEMS NCES IPEDS Completions Survey, 2004-05 and 2012-13.

Postsecondary opportunity for Latino, African American, Native American, and Alaskan Native students is further threatened because of the collision between growing student enrollment demand and shrinking state budgets. As can be seen in **Table 3**, applications for freshman admissions from California residents have grown substantially at both the CSU and UC since 2000—up by 78 percent at UC since 2000, and more than doubling at CSU. Since 2000, CSU has nearly tripled the number of freshmen admitted, while the number of UC freshmen admitted grew by roughly one third. **Figure 4** shows that growth in new freshman admissions have plateaued in both systems since the Great Recession, despite continued strong application demand.

Table 3

Trends in Resident Student Freshman Applications/ Admissions at UC and CSU

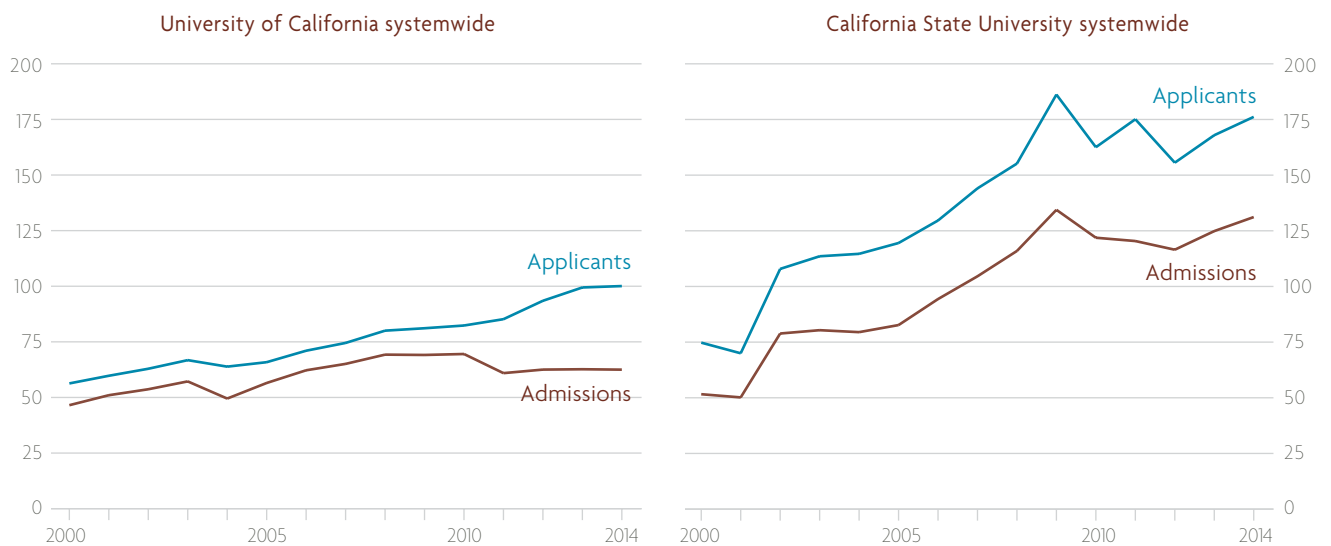
	University of California systemwide		California State University systemwide	
	Freshman applicants	Freshman admissions	Freshman applicants	Freshman admissions
2014	100,077	62,500	176,168	131,167
2013	99,447	62,682	167,933	124,864
2012	93,460	62,527	155,595	116,502
2011	85,187	60,933	175,100	120,399
2010	82,341	69,533	162,543	121,882
2009	81,113	69,105	186,188	134,419
2008	80,029	69,251	155,194	115,948
2007	74,509	65,088	144,054	104,566
2006	71,011	62,214	129,626	94,341
2005	65,851	56,505	119,508	82,659
2004	63,852	49,497	114,651	79,478
2003	66,774	57,217	113,558	80,360
2002	62,903	53,686	107,881	78,866
2001	59,747	51,009	69,986	50,168
2000	56,309	46,524	74,764	51,602
2000–14 increase	78%	34%	136%	154%

Source: University of California, UC Info Center, California State University, Analytic Studies.

Figure 4

Trends in Resident Student Freshman Applications/Admissions at UC and CSU

2000–14 freshman applicants and admissions, in thousands; 2000–14 percent increase



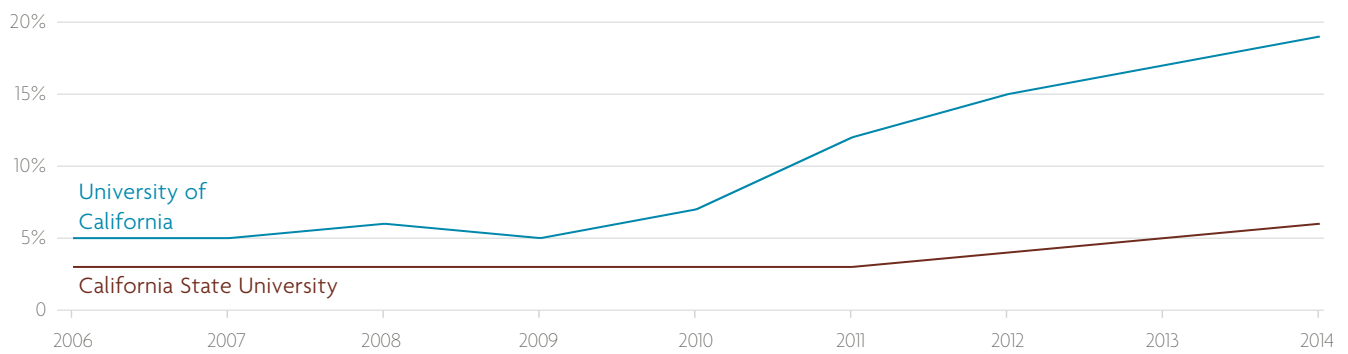
Source: University of California, UC Info Center, California State University, Analytic Studies.

As can be seen in **Figures 5 and 6**, the biggest reductions in new freshman opportunities for California residents have occurred at the University of California since 2010, at the same time that out-of-state enrollments increased by 20 percent. At UC, the ratio of resident applications to admissions has fallen among all racial and ethnic subgroups since 2010, with the largest declines occurring among Latino and African American populations.

These trends demonstrate that postsecondary opportunity is increasingly difficult for all resident students, but especially so among URM students seeking admission to the University of California.

Figure 5

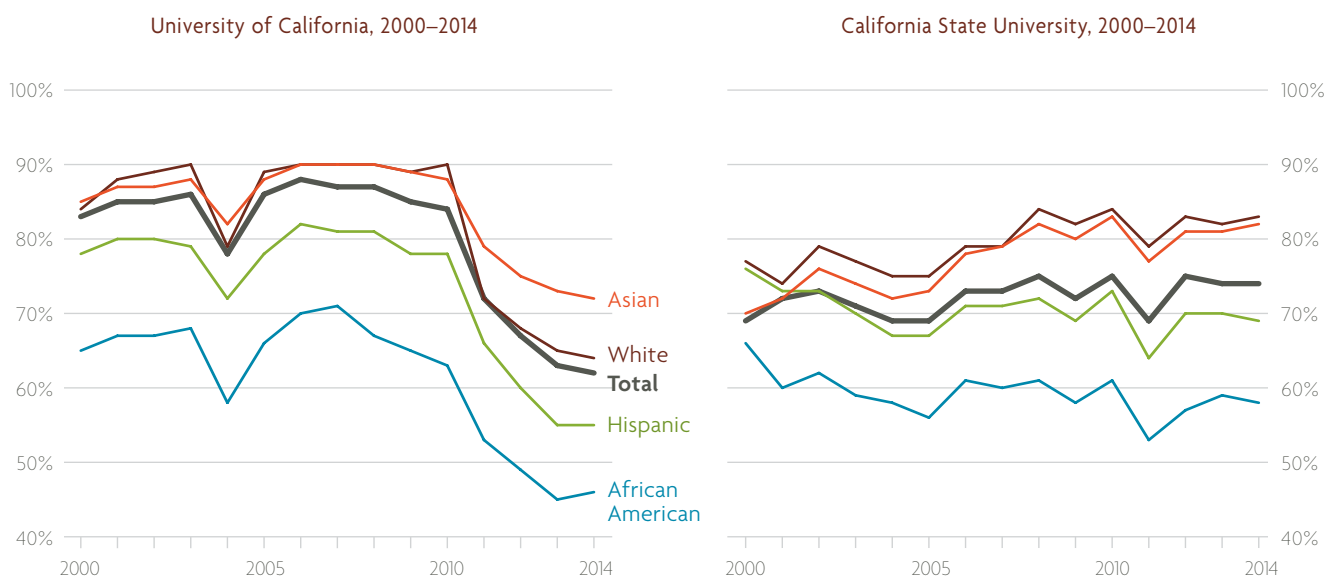
Percent of Freshman Enrollment that is Nonresident



Source: UC Info Center, CSU Analytics Studies

Figure 6

Admission Rate for California Residents: Percent of Freshman Applicants that are Admitted



Source: UC Info Center, CSU Analytics Studies

Failure to increase the educational attainment of the incoming cohort of minority students will:

- Leave California with an increasingly divided citizenry of educated White and Asian populations and undereducated minority populations.
- Hinder the state's ability to be economically competitive. California already lags other states with regard to education (skill/knowledge) levels of the workforce. An expanding attainment gap will further disadvantage the state.
- Lead to a decline in total educational attainment in California. Given current population projections and attainment levels by race, the statewide baccalaureate education attainment level in California will fall from 32 percent at present to 29 percent by 2025.

Closing Attainment Gaps at Each Stage of the Pipeline

Eliminating the baccalaureate attainment gap among younger adults aged 25-34 will require 730,000 additional degrees awarded to Latino, African American, Native American, and Alaskan Native students by 2025. Assuming that the number of degrees is spread out evenly over the next 10 years, this would equal 73,000 additional degrees per year above and beyond current annual completion rates for underrepresented minority students. The steps to close the gaps and the number of additional baccalaureate degrees at various stages of the education pipeline are as follows:

Eliminating the baccalaureate attainment gap among younger adults age 25-34 will require 730,000 additional degrees awarded to Latino, African American, Native American, and Alaskan Native students by 2025.

- If the **disparities in high school graduation rates** were to be eliminated, an additional 45,000 minority students would graduate from high school each year. If nothing else changed, this alone would yield as many as *136,000 additional baccalaureate degrees* in the period to 2025.
- If the **volume of community college transfers** increased from the current level of some 67,000 per year to 100,000 per year, annually an additional 11,400 minority students would attend CSU, and minorities attending UC would increase by 2,000, assuming the current racial/ethnic distribution of transfer students. With no other improvements in baccalaureate degree completion rates, this would yield an *additional 85,154 BA degrees* to URM students by 2025.
- If **participation rates** and four-year **completion rates** are closed at UC and CSU, an *additional 92,000 BA degrees* could be produced, as follows:
 - Equalizing BA attainment rates for CSU URM students to those of White and Asian students will yield an *additional 65,000 degrees* by 2025. CSU already has achieved substantial parity between ethnic groups among

entering students, where 57 percent of entering freshmen are either URM or mixed race and nonresident aliens. However, CSU has much higher attrition among URM students.

- If participation rates of underrepresented minority students at UC campuses were the same as for Whites and Asians there would be an *additional 10,000 baccalaureates* to URM students by 2025, at an estimated rate of 1,000 URM baccalaureate degrees granted at UC each year. This assumes that new URM participants at UC would complete a degree at the current URM graduation rate.
- And if underrepresented students' graduation rates at UC campuses were the same as for Whites and Asians—increasing URM completion rates by about 10 percentage points to an 80 percent graduation rate—UC would graduate an *additional 17,900 baccalaureates* by 2025.

It should be noted that there is very little gap in completions between underrepresented and White and Asian students in private institutions (either for-profit or not-for-profit). Any strategy to increase URM attainment needs to recognize the important role that these institutions play in that work.

If multiple steps were implemented simultaneously, the outcome would certainly be increased completion rates. Even if taken together, however, gaps across groups will remain in 2025, and will increase in the future if steps are not taken now to address the leaky educational pipeline.

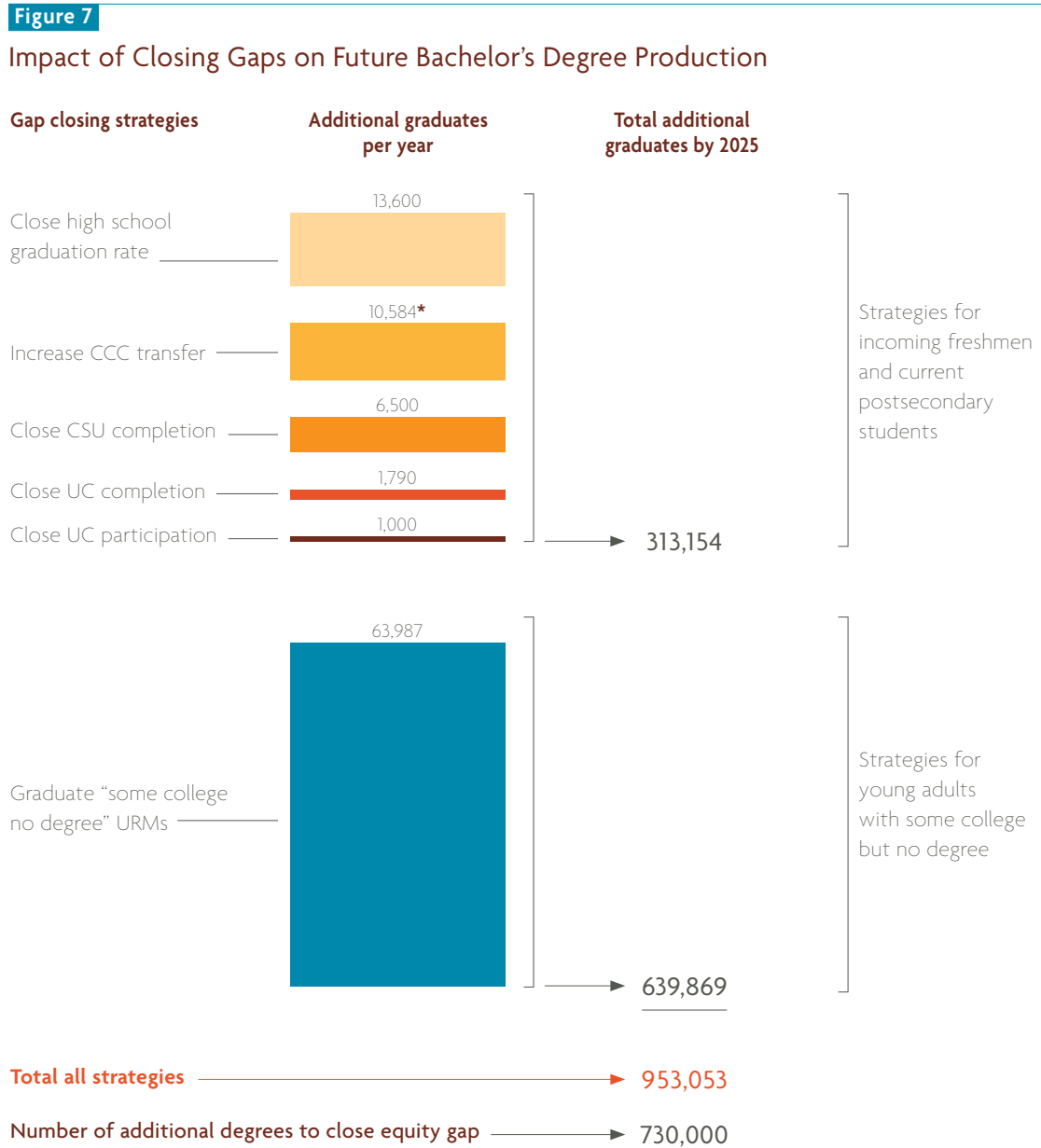
Each of the strategies above represents a snapshot of what one specific intervention could do to improve the number of minority students graduating with a BA degree. These steps do not estimate the extent of change that could be achieved if multiple steps were implemented simultaneously with compounding and cumulative impacts. Real-world scenarios in which multiple policy interventions are being applied simultaneously are much more difficult to quantify and predict, but the outcome would certainly be increased

completion rates over and above the ones estimated here.

It also must be said that these steps, if taken together, would still not eliminate gaps across groups by 2025, because of the large number of young adults who have fallen out of the educational pipeline with some college but no degree. Census estimates from 2013 show that 639,869 underrepresented minority students—24 percent of the URM population aged 25-34—had some college or no degree (*see Table 1, page 4*). This number will increase in the future, if steps are not taken now to address the leaky educational pipeline. The social and economic consequences of these gaps only grow over time, and will take generations to overcome.

Putting it All Together: Multiple Strategies, Shared Goals

Figure 7 summarizes the contribution of steps to close the attainment gap among students aged 25-34 by 2025.



* There is a lag of two years inherent between time of transfer and time of completion. so the effects of increased CCC transfer are factored into the 2025 total for eight years only. The 2025 total factors in 10 years for all other effects.

Source: NCHEMS calculation of additional students per stage in the pipeline.

California is faced with a major dilemma. If the state does not increase baccalaureate degree production, it will become increasingly unequal. These inequities will lead to a divided society in which more of the young minority population will have less education, leading to disadvantages in the job market and vast economic divides along racial lines. Simply improving the degree productivity of the UC and CSU Systems (enrolling more students and graduating a larger proportion of students who enroll) will not close the gap. The full arsenal of improvements will be required. California will have to:

- Improve high school graduation rates;
- Increase the proportion of minority high school graduates who attend college at both the CSU and UC;
- Increase the success rates of those who do enroll in college;
- Substantially increase the number of minority community college students who transfer into four-year institutions to complete a baccalaureate degree; and
- Re-engage the significant number of young minority students who have some college but no degree and enable them to go back to college and be successful in getting a degree.

The bottom line is that California will have to expand college access for minorities in all public sectors to eliminate attainment gaps in the next decade. Without substantial policy interventions to improve the educational outcomes of minorities, there is little hope of reaching equity.

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About the Authors

Patrick Kelly, Vice President, National Center for Higher Education Management Systems (NCHEMS). Patrick Kelly joined NCHEMS, a nonprofit research and development center founded to improve strategic decisionmaking in institutions and agencies of higher education, in 2002. Recent projects include strategic planning to improve higher education policy, finance, and outcomes-based funding; systemwide and institutional accountability; and postsecondary education links to workforce needs and economic development. Dr. Kelly has led analytical efforts to set nationwide educational attainment goals: for the Obama administration, the Lumina Foundation for Education, and many states. Audiences include state policymakers, State Higher Education Executive Officers and their staffs, higher education researchers and policy analysts, and other stakeholders. Dr. Kelly has a Ph.D. in Urban and Public Affairs and a Master's degree in Sociology, both from the University of Louisville. He completed undergraduate work at the University of Alabama at Birmingham.

Dennis Jones, President Emeritus, National Center for Higher Education Management Systems. A member of the NCHEMS staff since 1969, Dennis Jones is widely recognized for his work in developing public agendas for state higher education policymaking, financing, budgeting, and resource allocation policies; linking education with states' workforce and economic development needs; and developing and using information to inform policymaking. Mr. Jones has written many monographs and articles on these topics; has presented his work at many regional, national, and international conferences; and has consulted with hundreds of institutions and state higher education agencies on management issues of all kinds. Prior to joining NCHEMS, Mr. Jones served as an administrator (in business and in institutional planning) at Rensselaer Polytechnic Institute. He received his graduate and undergraduate degrees from that institution in the field of management engineering.

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